



2018 Forum on the Seasonal Forecasts of the Agro-hydro-climatic Characteristics in the Gulf of Guinea Countries (PRESAGG)

Applications to Disaster Risk Reduction

05th to 09th of March 2018, Lomé, Togo

For the Gulf of Guinea 2018 long rainy season, total rainfall amounts are expected to be roughly equivalent to or more than the averages calculated over the 1981-2010 period, the onset of the rainy season is expected to be earlier than usual, and the river flows may reach or exceed the averages in most coastal basins. Referring to these forecasts, important recommendations were made to prevent risks and make better use of the rainy season opportunities. These recommendations and mechanisms for monitoring their implementation have been shared with the disaster risk reduction agencies and other actors.

The Forum on the seasonal forecasts of the agro-hydro-climatic characteristics for the Gulf of Guinea Countries (PRESAGG) was organized by the AGRHYMET Regional Center of CILSS, the African Center for Meteorological Applications for Development (ACMAD), the National Meteorological and Hydrological services of Togo, in collaboration with experts from the Gulf of Guinea countries in charge of monitoring and producing agro-hydro-climatic information. Also, the representatives of the disaster risk reduction agencies and humanitarian aid agencies took part in this forum.

I. Summary of the forecasts

Taking into account the current configuration and future trends of Sea Surface Temperatures (SST), the current seasonal forecasts are the result of a consensus around statistical and dynamic model outputs and expert knowledge of the climate variability in the Gulf of Guinea region. The 2018 consensual forecasts for the key parameters of the long rainy season in the Gulf of Guinea region are as follows:

- Equivalent to the averages or higher than the averages **total amounts of rainfall** are expected over southwestern Nigeria during the period of March-April-May 2018. These amounts should be equivalent or slightly above average in the southern part of the Cote d'Ivoire, Ghana, Togo, Benin and southeastern Nigeria during the period from March to June 2018
- Early to normal **onset dates** are expected for the coastal band stretching from south-central Côte d'Ivoire to Nigeria, including southern Ghana, Togo and Benin.
- Early to normal **end-of-season dates** are likely to occur over most of the bimodal area (Central and South-east Cote d'Ivoire, Central and South-west Ghana, South-central Togo, South-central Benin and Central southwestern Nigeria). On the other hand, late to normal end-of-season dates are expected over southeastern Ghana, extreme south Togo and Benin and Southwestern Nigeria.

- Equivalent or longer than average **dry spells** (number of consecutive days without rain) are expected at the beginning of the rainy season, in south-eastern Côte d'Ivoire and southern Ghana. On the other hand, these dry spells should be longer than normal or equivalent to the average in southern Togo, Benin and southwestern Nigeria.
- Longer than normal or equivalent to the average dry spells are expected towards the end of the season over the areas located at the extreme southeastern Côte d'Ivoire and Southern Ghana. However, in the southwestern and central parts of Côte d'Ivoire, southern Benin, Togo, and southern and Southwestern Nigeria, it is shorter than normal or medium lengths of dry spells that are expected in the second half of the season.
- Average or above-average **stream flows** are expected in most coastal basins, except for the delta valley of the Niger-River in Nigeria and the northern Sassandra Basin (Ivory Coast) where average or below average flows are expected for the long rainy season. The seasonal flow forecasts include the following coastal river basins: coastal basins of Côte d'Ivoire (Sassandra Basin, Bandama, Comoé), Ghana (Lower basin of the River_Volta), Togo (Lake Togo, the Mono basin, the Couffo basin), Benin (the Ouémé basin), Nigeria (the Delta valley, the Lower Niger Delta).

II. Recommendations for reducing the main risks

1) Regarding the risk of drought

The water deficits that might result from the early end of rainy season expected for the bimodal (non-littoral) band and longer dry spells at the beginning of the season (in Southern Togo, Benin and Nigeria) and towards the end of the season (in southern Ghana and Côte d'Ivoire) could affect the establishment and growth of crops. This situation could also foster the development of crop diseases and pests. In addition, the expected lower than average river flows over the Sassandra basin could lead to a decrease in the availability of water resources for local users (dam managers, irrigation, etc.). According to this situation, it is recommended to:

- foresee mechanisms to reduce the risk of crop production deficits in the areas exposed to long dry spells and early end of the rainy season, through the promotion of market gardening, agroforestry and income-generating activities;
- favor species and varieties resistant to water deficit;
- prioritize farming techniques favoring the saving of soil water;
- plan and arrange for the use of back-up irrigation;
- Ensure rational management of water resources (for crops and other uses) in the delta valley of Nigeria, where run-off is predicted to be below or equivalent to the average,
- interact with National meteorological, agriculture and hydrological technicians for agro-hydro-meteorological information and advice on the varieties and techniques to be used;

2) Regarding the risk of flooding

Risks related to overflowing rivers are lower until June 2018. However, given the equivalent to above average total rainfall expected in the entire bimodal band and the probability of occurrence of intense rainfall events, localized floods might occur. To mitigate the risk of floods for people, animals, crops and properties, it is recommended to:

- avoid the uncontrolled occupation of floodable areas (both for housing and agriculture),

- maintain a strong collaboration between the national meteorological and hydrological services for the establishment of integrated systems for monitoring and early warning of flood risk;
- strengthen exchanges between the agencies in charge of monitoring floods, disaster risks reduction and those in charge of humanitarian aid.
- Support the technical services to strengthen the monitoring of the water resource for the satisfaction of the different uses, given that the hydrological forecasts characterized by the coexistence of excess and deficit flow zones.

3) Regarding the risk of diseases

In areas where the rainy season is expected to be wetter, there are risks of cholera, malaria, dengue fever, schistosomiasis and diarrhea. To reduce the development of germs and reduce the risks of diseases, it is highly recommended to:

- inform and strengthen the capacities of national health systems through civil protection, national platforms for disaster risks reduction, dissemination of monitoring bulletins on climate-sensitive diseases, sensitization of populations and decision-makers and strengthening collaboration between meteorological and health services.
- prevent diseases by vaccinating people and animals;
- Provide to population mosquito nets, antimalarial, chlorine and other water treatment products,
- monitor water quality and sanitize towns and villages, through operations of water drainage and gutter cleaning.
- prevent germ outbreaks developed by wet conditions;

III. Recommendations for taking advantage of the opportunities

For areas where it is more likely to receive average or excess rainfall amounts, early starting dates, shorter length of dry spells and excess of runoff, it is recommended for farmers, herders, authorities, projects, NGOs and farmers organizations to:

- invest more in improved seeds and develop techniques for increasing crop yields;
- apply fertilizers (organic and mineral fertilizers);
- increase vigilance against crop pests (armyworm and other pests);
- take advantage of the use of available water, through the promotion of irrigation, flood recession crops and aquaculture, particularly in the lower Volta Basin, where the expected average or above average flows should satisfy the filling of different dams, for irrigated crops in the floodplains (especially downstream of the Akossombo dam) and the satisfaction of the drinking water needs;
- put in place agricultural inputs (improved seeds, fertilizers, insecticides, fungicides, herbicides, etc.) in sufficient quantity in the different zones;
- provide the agricultural services and farmers with equipment and means for irrigation activities around water points;
- support and promote the communication of climate information, including seasonal and climate forecasts, to agricultural producers and other users;
- Organize or strength farmers supervision, monitoring and climate risks response mechanisms.

It is recommended that all those involved in the monitoring of the agricultural campaign be attentive to the updates to be made by the AGRHYMET Regional Center, ACMAD and the National Meteorological and Hydrological Services.

Lomé, 09th March 2018

The Forum

