

**CENTRE AFRICAIN POUR LES APPLICATIONS DE  
LA METEOROLOGIE AU DEVELOPPEMENT**



**AFRICAN CENTRE OF METEOROLOGICAL  
APPLICATIONS FOR DEVELOPMENT**

**Institution Africaine parrainée par la CEA et l'OMM**

**African Institution under the aegis of UNECA and WMO**

## **SECOND GENERATION SEASONAL CLIMATE OUTLOOK PROGRAMME**

**Seasonal Climate Outlooks valid for June-July-August and  
July-August-September 2011 in west Africa, Chad and  
Cameroon**

Made in Niamey on May 25, 2011

## FOREWORD

The African Centre for Meteorological Applications for Development (ACMAD) initiated the implementation of the second generation seasonal climate outlook programme (PRESAO\_SG) in 2010. This product was developed in the framework of this activity.

Global Producing Centres for Long Range Forecasting (GPC-LRF) of the World Meteorological Organization (e.g. UKMetoffice, Meteo-France, ECMWF), International climate centres and institutes (e.g. IRI at Columbia University in New-York), and National Meteorological Services of West African Countries, Chad and Cameroon are contributing partners.

A Web based conference is used to discuss and build consensus statements in this document.

Seasonal forecasts for July-August-September 2011 will be refined and updated during the 14<sup>th</sup> Regional Climate Outlook Forum for West Africa, Chad and Cameroon to be held in Abuja-Nigeria from June 22 to 23, 2011. Seasonal forecast for March-April-May, April-May-June and May-June-July 2011 were prepared and are available on ACMAD website ([http :www.acmad.org](http://www.acmad.org)).

## SUMMARY

The moderate to strong La Nina conditions that prevailed since August 2010, weakened in March-April 2011 and dissipated to ENSO neutral conditions by the end of May 2011. ENSO neutral conditions are expected to persist from June to September 2011.

The above normal sea surface temperature observed over tropical eastern north Atlantic off the coast of West Africa in March weakened in April 2011. In May 2011, a localized area of normal to below normal sea surface temperatures developed over the coast of Guinea-Conakry. However, analysis of observations and model products suggests a slightly above normal sea surface temperatures on average over the eastern tropical North Atlantic Ocean from June to September 2011.

Above normal sea surface temperatures prevailed until May 2011 over much of the eastern tropical south Atlantic. A cold tongue developed over the Coasts of Equatorial Guinea, Gabon and Congo and extended westward along the equator in May 2011. Recent trends and model products support a transition from above normal to normal sea surface temperatures on average over eastern tropical South Atlantic Ocean.

Given current global sea surface temperature patterns and related trends, analysis and interpretation of global seasonal forecasting systems products, the following precipitation patterns are expected for May-June-July 2011:

- Above normal precipitation very likely over Southern parts of Mauritania and Niger, Southern and central Mali, Senegal, Gambia and Burkina Faso;
- Slightly below normal precipitation very likely over the northern parts of Sahelian countries from Chad to Mauritania;
  
- Normal precipitation is more likely over coastal countries of the domain and southern Chad.

From July to September 2011, above normal precipitation is very likely over Western Sahel mainly over south and central Mali, southern Mauritania, Senegal and Burkina Faso. Slightly below normal precipitation is expected over much of Guinea-Conakry, Liberia, Sierra Leone and the westernmost part of Ivory Coast. Normal precipitation is more likely from Ghana to Cameroon, in Niger and Chad, over northern Mali and Mauritania. An update of the July to September 2011 Seasonal forecasts will be made available during the 14<sup>th</sup> Regional Climate Outlook Forum for West Africa, Chad and Cameroon from June 22 to 23, 2011 in Abuja-Nigeria.

## **A- STATE OF THE OCEANS AND TRENDS**

This part describes the most recent state of the global oceans and related trends.

### **A1- ATLANTIC OCEAN**

Above normal sea surface temperatures observed east of the tropical north Atlantic off the coast of West Africa in April persisted in May 2011. Localized cold anomalies were observed off the coast of Senegal, Guinea and Sierra Leone during April 2011. Recent observed trends and forecasts models are favorable for slightly above normal sea surface temperatures over eastern north tropical Atlantic from June to September 2011.

Over tropical South Atlantic off the coasts of Gabon, Congo and Angola, below normal sea surface temperatures developed in May 2011 and extended westward. However, on average over eastern tropical south Atlantic, sea surface temperatures were above normal up to May 2011. Observed trends and models products are favorable for a weakening of the warming leading to normal sea surface temperatures on average over eastern tropical south Atlantic from June to September 2011.

### **A2 - PACIFIC OCEAN**

The cold phase of ENSO (LA NINA) has been observed since August 2010. A weakening LA NINA was observed from March to May 2011 signaling a transition to ENSO neutral conditions. Observed trends and models outputs are favorable ENSO neutral conditions over the region from June to September 2011.

### **A3 - INDIAN OCEAN**

Normal sea surface temperatures observed during the past months over eastern tropical Indian Ocean off the coasts of East Africa is expected to persist from June to September 2011.

## **B- FORECAST**

The current state of the oceans and trends indicated above, the existing knowledge on the impacts of sea surface temperature on rainfall in Africa and the outputs of global seasonal forecasting systems have been used to provide precipitation Outlook for May-June-July 2011 ( figure 1) and July-August-September 2011 (figure 2) in West Africa as follows:

- over zone I covering southern Chad and coastal countries from Guinea-Conakry to Cameroon, normal precipitation is very likely;
- over zone II encompassing the agricultural belt of western Sahel including Senegal, Burkina Faso, southern and central Mali, southern parts of Mauritania and Niger, northernmost part of Nigeria, above normal rainfall is very likely;
- Slightly below normal precipitation is very likely over the northern part of Sahelian countries from Chad to Mauritania.

Figure 2 shows seasonal forecasts valid for July-August-September 2011. It suggests that above normal precipitation is very likely over much of Mauritania, Mali, Senegal and Burkina Faso (Zone I). Slightly below normal precipitation is very likely over much of Guinea Conakry, Sierra Leone and Liberia. The

remaining coastal countries from Ghana to Cameroon, northern parts of Mali and Mauritania, much of Chad and Niger are expected to experience normal precipitation.

**RAINFALL OUTLOOK FOR WEST AFRICA, CHAD AND CAMEROON**

**VALID FOR JUNE- JULY - AUGUST 2011  
 ISSUED ON MAY 25 2011**

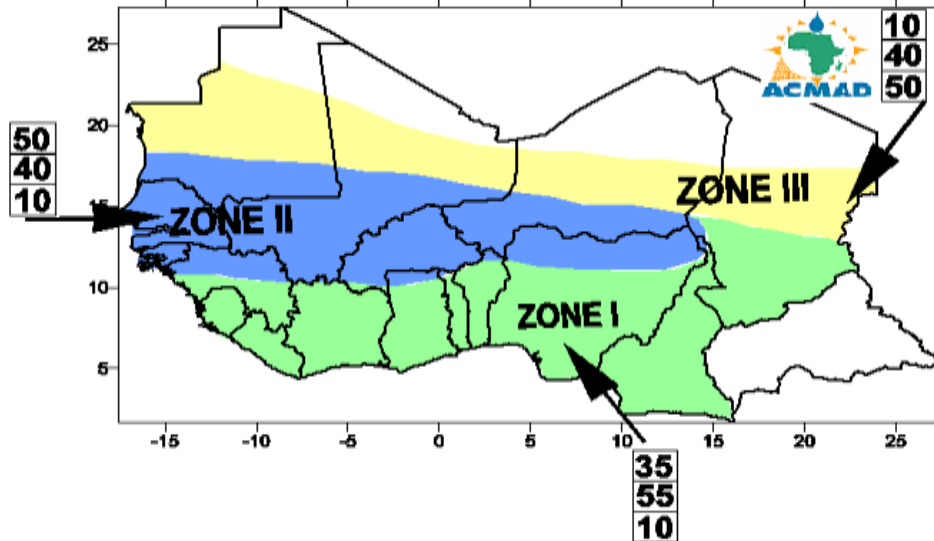


Figure1: Precipitation Outlook Valid for June-July-August 2011 over West Africa, Chad and Cameroon.

**RAINFALL OUTLOOK FOR WEST AFRICA, CHAD AND CAMEROON**

**VALID FOR JULY - AUGUST-SEPTEMBER 2011  
 ISSUED ON MAY 25 2011**

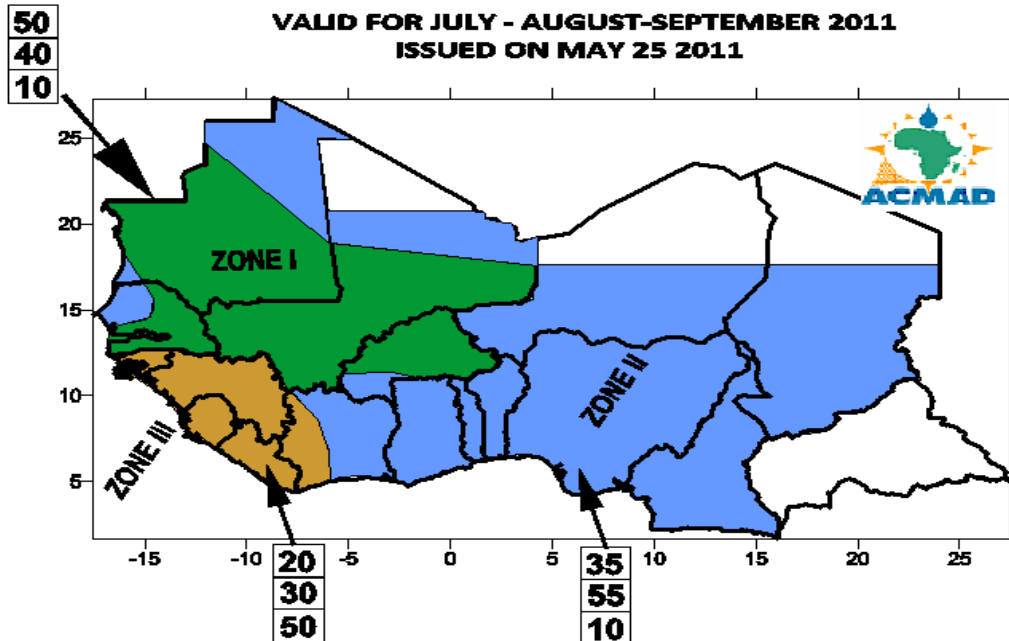


Figure 2: Precipitation Outlook Valid for July-August-September 2011 over West Africa, Chad and Cameroon.

**NB: Users of this product are encouraged to contact National Meteorological and Hydrological Services for more detailed advices at country level. Figure 2 will be updated during the 14<sup>th</sup> Regional Climate Outlook Forum from June 22 to 23, 2011 in Abuja-Nigeria.**