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PRESANORD-07

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THEME: "Seasonal forecast: Climate Service for better management of risks and opportunities related to climate variability and change for sustainable development"

SEASONAL CLIMATE OUTLOOK BULLETIN VALID FOR DECEMBER–JANUARY-FEBRUARY 2014 OVER NORTH AFRICA, (ANTALYA, 20th NOVEMBER 2014)

Produced by

The African Centre of Meteorological Applications for development (ACMAD) in collaboration with National Meteorological and Hydrological Services of north African countries with support of WMO designated Global Producing Centers for Long Range Forecasts and the International Research Institute for Climate & Society at Columbia University in New-York USA.

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EXECUTIVE SUMMARY

Given the current circulation, sea surface and sub-surface Temperature patterns and trends, models outputs and expert judgment, the precipitation and temperature outlooks for December-January-February 2014/15 are as follows:

- Near to below average precipitation is very likely over northern Morocco and coastal parts of Western Algeria;
- > Near average precipitation is more likely over the remaining parts of the region;
- Above average near surface air temperature is very likely over much of north Africa particularly over its eastern part where mild winter is expected;
- ➤ Given the expected stronger than usual sub seasonal variability notably of the north Atlantic Oscillation, monitoring and forecasting days to weeks in advance are strongly recommended to anticipate abrupt changes on weather patterns which may occur. ACMAD/RCC with the developing north Africa RCC climate monitoring node are requested to consider issuing climate watch advisories if significant regional climate anomalies occur during the period of validity of this consensus forecast.

RECENT CLIMATE CONDITIONS AND OUTLOOK

I- STATE OF THE GLOBAL CIRCULATION OCEANS AND TRENDS

- In October 2014, near average Sea Surface Temperatures (SSTs) were observed over most of the Equatorial Pacific (ENSO region). Models outputs and experts judgments are favorable for a start of a weak to moderate El Nino during the next 1 to 2 months. It is expected to last into northern hemisphere spring of 2015.
- Above average SSTs developed over the tropical north Atlantic in October 2014. Most
 models outputs and expert judgment are favorable for a persistence of this pattern with
 less warming conditions during the coming few months.
- Below average Sea Surface Temperatures characterize the mid latitude Atlantic ocean in October and early November 2014. This pattern is expected to persist and expand southward towards the subtropical Atlantic during the coming few months.
- The tropical south Atlantic waters have been mostly below average in October and early November 2014. This pattern is expected to evolve toward near average conditions during the coming few months.
- Seas surface temperatures of the western equatorial Indian Ocean and the tropical southern Indian Ocean have been mostly above average in October and early November 2014. Models outputs and experts assessments support a persistence of these patterns from December to February 2014.
- The Seas surface temperatures of the Mediterranean Sea have been above average during
 the past few months favoring development of storms and heavy precipitation in parts of
 southern Europe. Models outputs and expert judgment are favorable for above average
 sea surface conditions with warming lower than that of October 2014 for the coming
 months.

II- PRECIPITATION AND TEMPERATURE OUTLOOK

Given these circulation, SST anomalies, sub-surface temperature patterns and trends, knowledge and understanding of seasonal climate variability over North Africa, and available long range forecasts products, the following outlooks are provided for December-January-February (DJF) 2014/15 season in the region (see figures 1 and 2 below):

- > Near to slightly below average precipitation is likely over northern Morocco and northwestern parts of Algeria;
- > Near average precipitation is more likely over the remaining parts of the region;
- Above average near surface air temperature is very likely over much of north Africa particularly over its eastern part where mild winter is expected;
- Fiven the expected stronger than usual sub seasonal variability notably for the north Atlantic Oscillation, monitoring and forecasting days to weeks in advance are strongly recommended to anticipate abrupt changes on weather patterns which may occur.

ACMAD/RCC with the developing north Africa RCC climate monitoring node are requested to consider issuing climate watch advisories if significant regional climate anomalies occur during the period of validity of this consensus forecast.

NB: Users are advised to seek more detailed climate information on the distribution of precipitation during the season, impacts and action options from National Meteorological and Hydrological Services and ACMAD website (www.acmad.org).

VALID FOR DECEMBER-JANUARY-FEBRUARY 2014/2015 NORTH AFRICA ISSUED ON NOVEMBER, 20 2014 35 30 25 20 -15 -10 0 10 20 25 30 35 -5 15 Green color indicates above average precipitation more likely Yellow color indicates below average to near average precipitation more likely Grey color indicates climatology A Above average

SEASONAL PRECIPITATION FORECAST

Figure 1: Seasonal forecasts for precipitation valid for December-January-February 2014/15.

Below average

Climatology or desert area

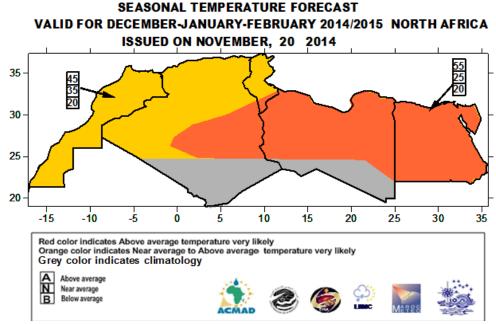


Figure 2: Seasonal forecasts for near surface air temperature valid for December-January-February 2014/15.

This outlook is produced at the regional scale. Thus, its interpretation should be for regional use. For local and/or country adaptation and applications needs, it is highly recommended to consult the National Meteorological and Hydrological Services for local details.