



TWELFTH SESSION OF THE ARAB CLIMATE OUTLOOK FORUM

**SEASONAL FORECAST FOR DECEMBER-JANUARY-
FEBRUARY 2023/2024**

Online session

November, 28th ,2023

SEASONAL OUTLOOK FOR WINTER 2023/2024

Consensual seasonal forecast for the boreal winter (December-January-February 2023/2024) over the Arab region has been produced during the twelfth session of the Arab Climate Outlook Forum (ArabCOF-12) conducted online on November, 28th in conjunction with the twentieth session of North Africa Climate Outlook Forum (PRESANOD-20) and ninth session of the Gulf Cooperation Council Climate Outlook Forum (GCCCOF-9). It is based on known teleconnections of large and regional patterns as well as on dynamical and statistical model outputs.

ArabCOF operates as an overarching entity in support of two other sub-regional COFs in the region, PRESANORD (RCOF for North Africa) and the Gulf Cooperation Council Climate Outlook Forum (GCCCOF) and, it focuses on the large-scale forcings, such as the North Atlantic Oscillations (NAO), El Niño–Southern Oscillation (ENSO) and Indian Ocean Dipole (IOD), that affect the whole region.

I. RECENT CLIMATE CONDITIONS AND OUTLOOK

Most of the key atmospheric and oceanic variables in the tropical Pacific indicate El Niño conditions. A set of dynamical and statistical models suggests the continuation of El Niño conditions throughout the boreal spring of 2024. There is a 100% probability of these conditions during the boreal winter, and over a 80% during the boreal spring. The IOD index reflects the positive phase and is predicted to shift to neutral conditions by the end of the boreal winter. Sea-surface temperatures over North Tropical Atlantic are expected to be above normal for DJF 2023/2024.

It is worth noting that seasonal forecast gives average tendencies for a season and in some cases sub-seasonal fluctuations can prevail.

II. SEASONAL OUTLOOK

Given the current oceanic and atmospheric patterns, knowledge and understanding of seasonal climate variability and available long-range forecasts, the following seasonal outlook has been developed for DJF 2023/2024 across Arab region.

The maps show the probabilistic consensus forecast for 3 categories of anomalies for seasonal mean temperature and total precipitation.

- **TEMPERATURE**

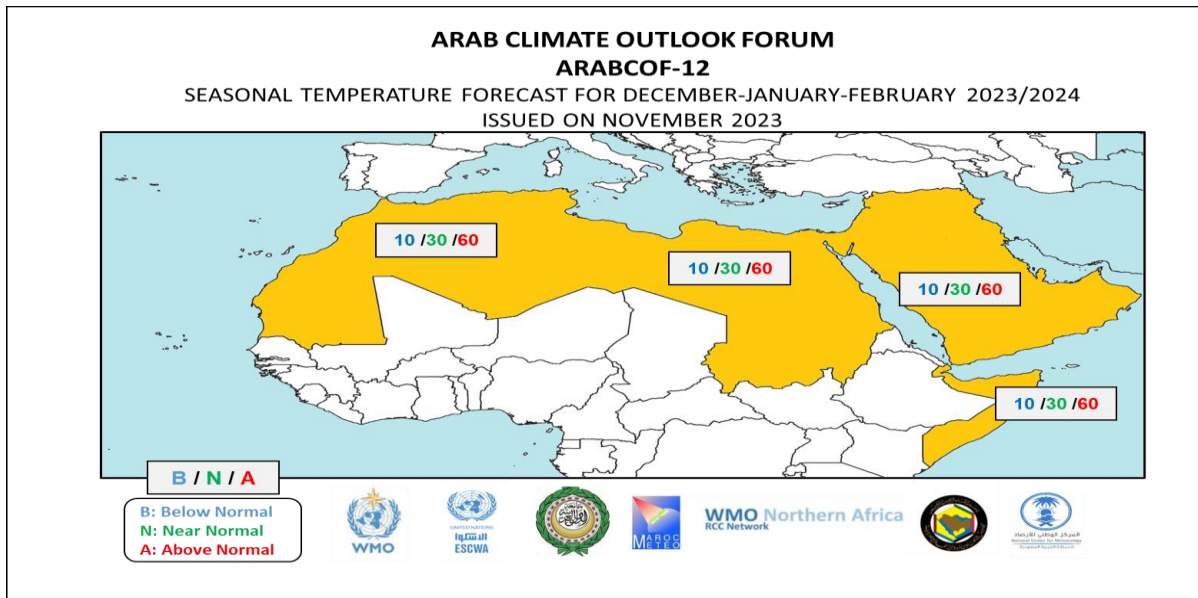


Figure 1: Seasonal forecast of mean temperature for DJF 2023/2024

During DJF 2023/2024, temperatures are likely to be above normal over the entire Arab region. (Fig.1).

- **PRECIPITATION**

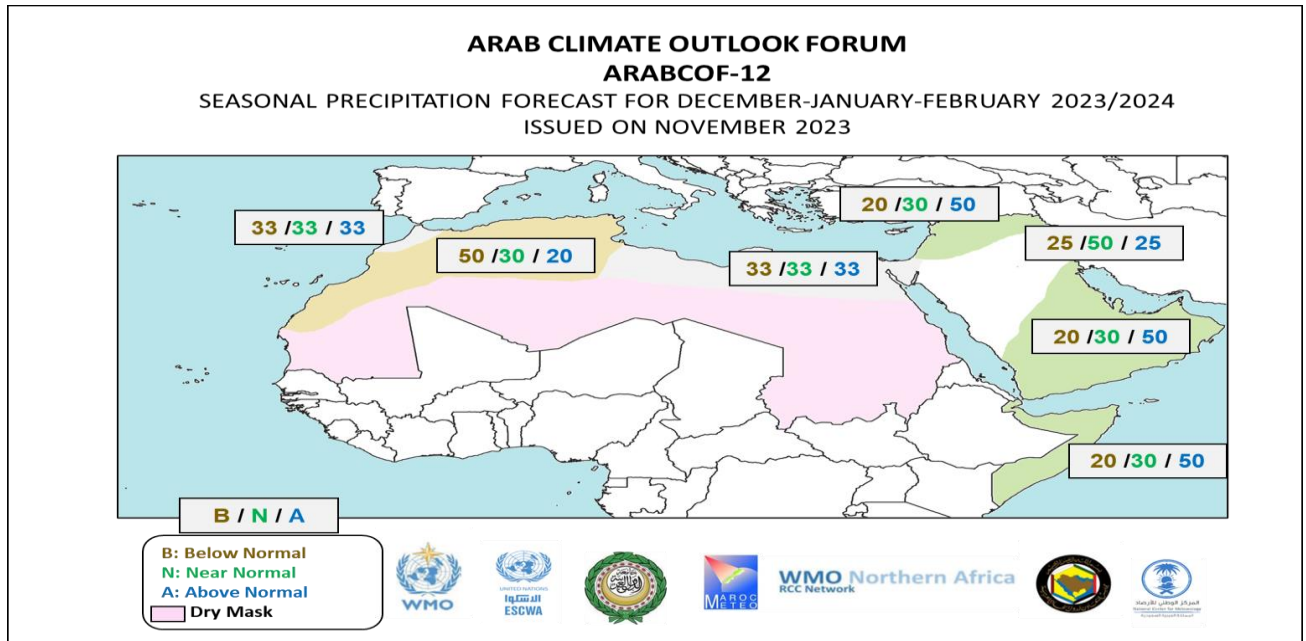


Figure 2: Seasonal forecast of precipitation for DJF 2023/2024

A dry mask (Fig.2) is applied over most of Mauritania, southern Algeria, southern Libya, Southern Egypt and Sudan (shaded pink) given that DJF over these areas is climatologically dry season.

For the remaining areas, total precipitation during DJF 2023/2024 is expected to be normal to below normal over most of Morocco, Northern Algeria, Tunisia. Normal to above normal conditions are predicted over the Levant, most of the Gulf and Horn of Africa countries including Palestine, Jordan, Lebanon, Syria, Northern Iraq, Kuwait, South and East of Saudi Arabia, Qatar, the UAE, Bahrain, Oman, Yemen, Somalia and Djibouti. Near normal conditions are expected over the remaining parts of Saudi Arabia with no special scenario favored elsewhere (Fig.2).