

FOURTEENTH SESSION OF THE ARAB CLIMATE OUTLOOK FORUM

SEASONAL FORECAST FOR DECEMBER-JANUARY-FEBRUARY 2024/2025

Online session

November, 28th ,2024

SEASONAL OUTLOOK FOR WINTER 2024/2025

Consensual seasonal forecast for the boreal winter (December-January-February 2024/2025) over the Arab region has been produced during the fourteenth session of the Arab Climate Outlook Forum (ArabCOF-14) conducted online on November, 28th in conjunction with the twenty-second session of North Africa Climate Outlook Forum (PRESANOD-22) and the eleventh session of the Gulf Cooperation Council Climate Outlook Forum (GCCCOF-11). 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

The latest ENSO forecast suggests that La Niña conditions will emerge during September–November (60% chance) and persist through January–March 2025. Both dynamical and statistical models indicate that this La Niña event will likely be weaker and shorter in duration compared to previous years. The Indian Ocean Dipole (IOD) index is expected to remain neutral, while sea surface temperatures in the North Tropical Atlantic and the Mediterranean are projected to be above average. A positive North Atlantic Oscillation (NAO) is anticipated during DJF 2024/2025, supported by a cooler and stronger polar vortex, along with a robust signal of above-normal sea-level pressure over the Mediterranean and below-normal conditions in high latitudes;

It is worth noting that seasonal forecasts provide average tendencies for a season, but in some cases, sub-seasonal fluctuations may dominate

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 2024/2025 across Arab region.

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



Figure 1: Seasonal forecast of mean temperature for DJF 2024/2025

During DJF 2024/2025, temperatures are likely to be above normal across the entire Arab region, including Morocco, Mauritania, Algeria, Tunisia, Libya, Egypt, Sudan, Palestine, Jordan, Lebanon, Syria, Iraq, Kuwait, Saudi Arabia, Qatar, Bahrain, the UAE, Oman, Yemen, Somalia, and Djibouti (Fig. 1).

• **PRECIPITATION**



Figure 2: Seasonal forecast of precipitation for DJF 2024/2025

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 2024/2025 is expected to be below normal across most of Morocco, northern Algeria, northeastern Egypt, Palestine, Jordan, Lebanon, Syria, Iraq, most of Saudi Arabia, Kuwait, Qatar, the UAE, and Bahrain. Near-normal conditions are predicted over the rest of Saudi Arabia, Yemen, and Oman. There is uncertainty about the predominant precipitation state in northern Libya, northern Egypt, Djibouti, and Somalia (Fig.2).