



CONSENSUAL SEASONAL OUTLOOK OVER GULF COOPERATION COUNCIL REGION (GCCCOF-3) FOR WINTER 2020/2021

**On-line session
November 30 - December 2, 2020**

Consensual seasonal forecast for winter (December-January-February) 2020/2021 over Arab Gulf countries and Yemen has been produced during the online GCCCOF session. It is based on known teleconnections of large scale and regional patterns as well as on the outputs of dynamical and statistical models.

I. RECENT CLIMATE CONDITIONS AND OUTLOOK

Most of the key atmospheric and oceanic variables in the tropical Pacific indicate La Niña conditions. The majority of dynamical and statistical models indicate more than 90% chance of continued La Niña conditions during boreal winter¹ (Figure 1). Sea-surface temperatures are expected to be normal to above normal over Tropical Atlantic Ocean and above normal over most of the Indian Ocean for DJF 2020/2021.

The Indian Ocean Dipole index (IOD) reflects near-neutral conditions and is predicted to continue being neutral from December 2020 to February 2021² (Figure 2).

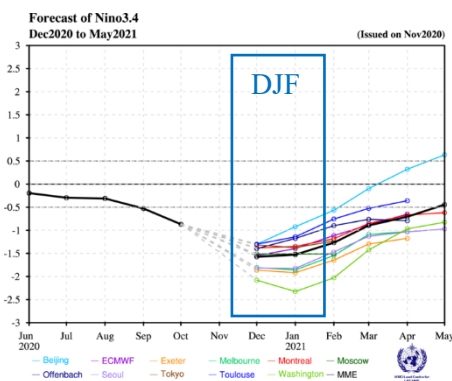


Figure1: Forecast of Nino3+4 for DJF 2020-21.

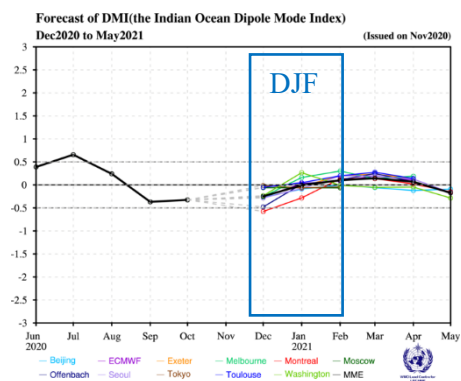


Figure2: Forecast of IOD for DJF 2020-21.

¹ [WMO El Nino/La Niña Update](#)

² WMO Global Seasonal Climate Update [DJF2020/2021](#)

II. SEASONAL OUTLOOK

Given oceanic and atmospheric patterns, knowledge and understanding of seasonal climate variability and available long-range forecasts products from Global Producing Centers of Long-Range Forecast (GPCLRF), as well as the seasonal outlook for the entire Arab region (Arab-COF), the following outlook is provided for December-January-February 2020-2021 season across Arab Gulf countries and Yemen. The following maps show the probabilistic consensus forecast for 3 categories of anomalies for seasonal average surface temperature and precipitation.

Temperature

Surface temperatures are likely to be warmer than normal over most of the Arabian Peninsula except for the southern part. Northern and central Saudi Arabia, Kuwait, Qatar, Bahrain, United Arab Emirates and Oman are expected to be near normal, whereas the southern parts of Saudi Arabia, the western part of Oman, and most of Yemen are expected to have below normal temperatures (Figure 3).

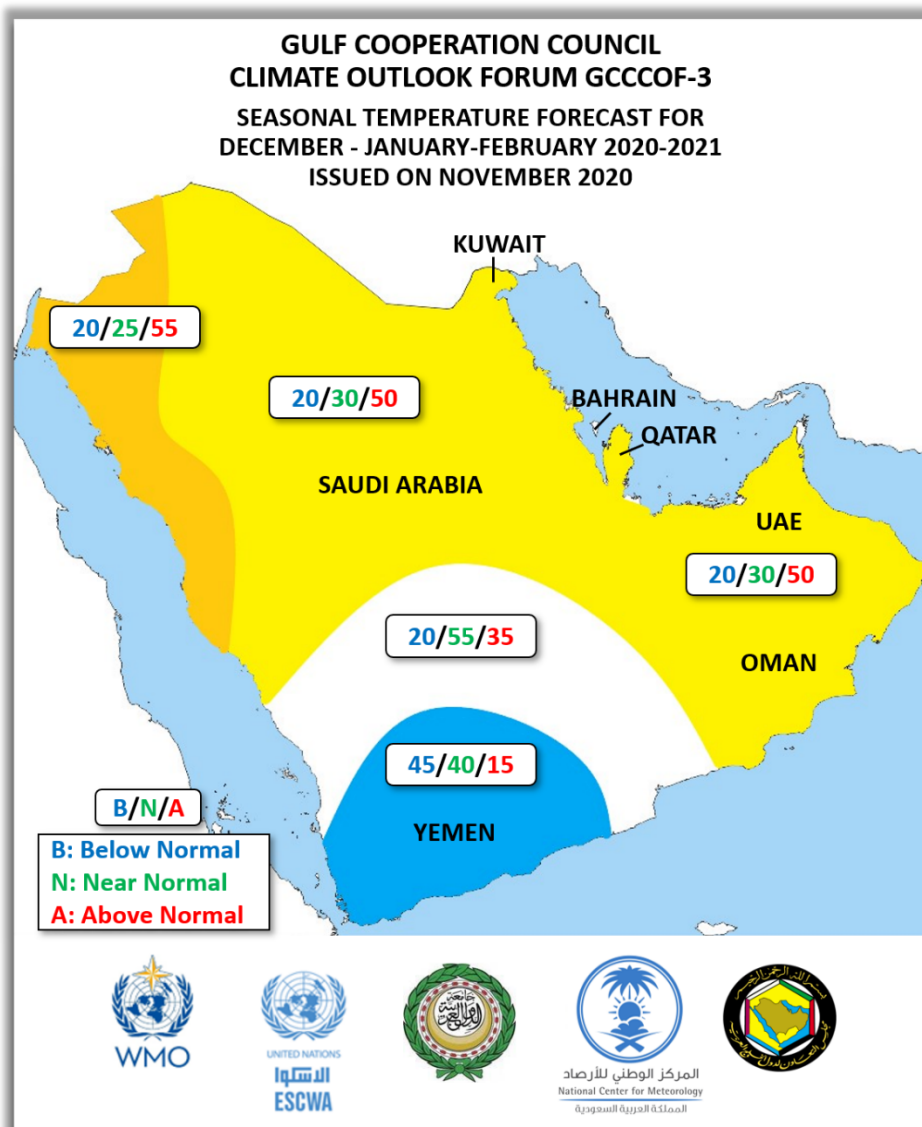


Figure 3: Seasonal Temperature Forecast over Arab Gulf countries and Yemen for DJF 2020-21.

Precipitation

Total precipitation is expected to be below normal over most parts of Saudi Arabia, Kuwait, Bahrain, Qatar, United Arab Emirates and most of regions of Oman and Yemen.

Near normal conditions are expected over the western part of Oman and the eastern parts of Yemen. (Figure 4).

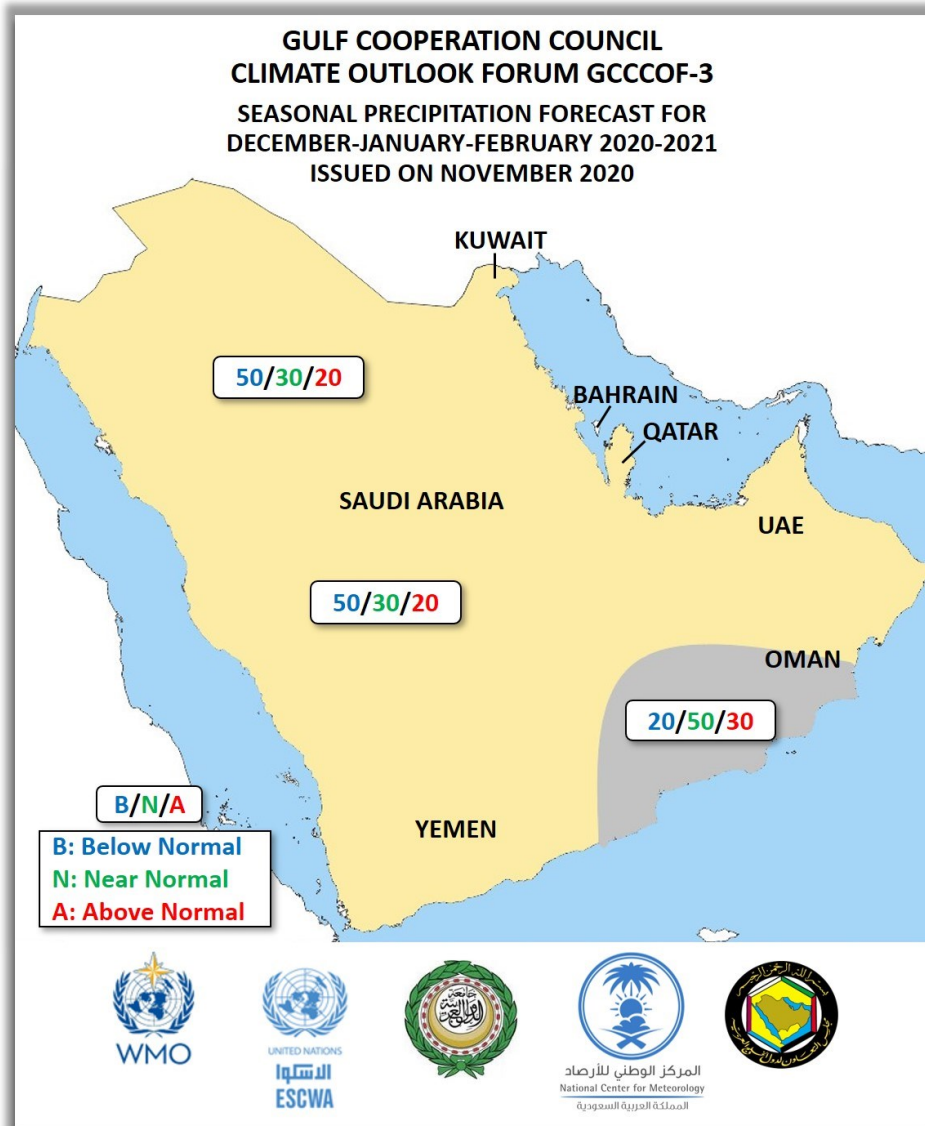


Figure 4 : Seasonal Precipitation Forecast over Arab Gulf countries and Yemen for DJF 2020-21.