







GLOBAL SEASONAL CLIMATE UPDATE

TARGET SEASON: April-May-June 2021

Issued: 24 March 2021























Summary

Observed sea surface temperatures (SSTs) in the central tropical Pacific were in a La Niña condition during December-January-February 2020/21. The below-normal sea-surface temperature anomalies in the Niño 3.4 and Niño 3 regions, both of which are used to characterize ENSO conditions, are predicted to return towards normal during the April-June 2021 season. SST anomalies in other tropical ocean basins are generally predicted to be in near normal conditions.

For April-June 2021, above-normal air temperatures over land are expected to be strongest in the maritime continent, over the southern half of North America, northern regions of central America, Caribbean, western Asia (including Arabian Peninsula), and far eastern coastal regions of central Asia around 40°N. Above-normal temperatures are also likely over much of the northern high latitudes (except over north-western North America). In the Northern Hemisphere, other areas where above-normal temperatures are most likely include much of south Asia, southern Europe and North Africa. Below-normal temperatures are predicted for the north-western part of South America and southern regions of the Indian Peninsula. In the Southern Hemisphere, there is more uncertainty about the expected air temperatures, although there is a higher chance that the southern and north-eastern parts of South America will be above-normal. Central Africa above 15°S, is also predicted to be above-normal. Over Australia, in general, there is no clear signal while New Zealand is expected to have above-normal temperature.

Many of the predicted rainfall anomalies for April-June 2021 represent a lingering influence of decaying La Niña conditions. These impacts include increased chances of unusually wet conditions over parts of the maritime continent, Australia, north-western North America, and northern South America, plus dry conditions over parts of the Greater Horn of Africa, subtropical latitudes of North America, and some parts of south-eastern South America. Probabilities for below-normal rainfall also extend through western Asia (including Arabian Peninsula). Equatorial central Africa is also predicted to be dry. There are increased probabilities of above-normal rainfall (and possibly as snow) over much of the Northern Hemisphere north of about 45 °N, and over the Indian subcontinent. There is a weak signal in rainfall over southern Africa.

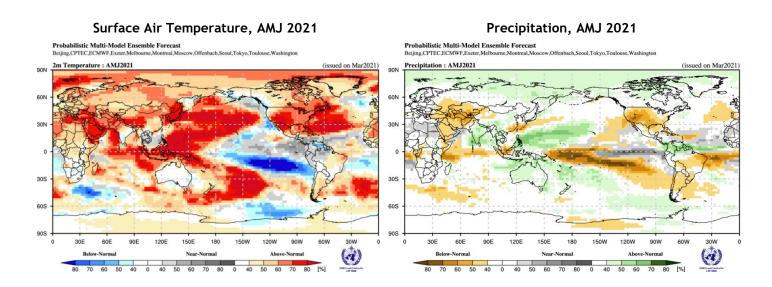


Figure 1. Probabilistic forecasts of surface air temperature and precipitation for the season April-May-June 2021. The tercile category with the highest forecast probability is indicated by shaded areas. The most likely category for below-normal, above-normal and near-normal is depicted in blue, red and grey shadings respectively for temperature, and orange, green and grey shadings respectively for precipitation. White areas indicate equal chances for all categories in both cases. The baseline period is 1993-2009.

Obs Surface Temperature Anomaly (C) DJF2020/2021 (with respect to the 1981—2010 base period)

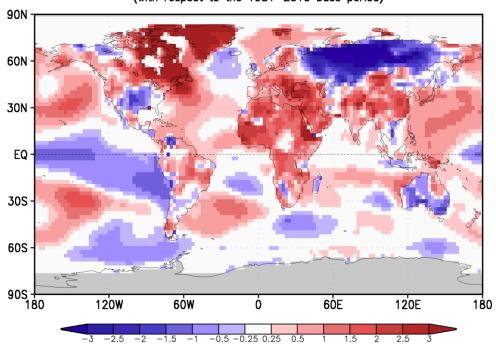


Figure 2. Observed December-January-February 2020/21 near-surface temperature anomalies relative to 1981-2010. (Source: U.S. Climate Prediction Center).

Obs Precipitation Anomaly (mm/day) DJF2020/2021 (with respect to the 1981–2010 base period) 90N 60N 30N EQ 30S 60S 90S 180 120W 60W 0 60E 120E 180

Figure 3. Observed precipitation anomalies for December-January-February 2020/21, relative to 1981-2010 base period (top). (Source: U.S. Climate Prediction Center).