Climate Monitoring:
**RA1 : RCC-NA CM node**

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ARABCOF5 Climate Monitoring

The following ARABCOF monitoring summary is based on climate monitoring working reports from:

WMO RA I North Africa RCC-CM Node; National Institut of Meteorology (INM), Tunisia

WMO RA VI RCC-CM Node; Deutscher Wetterdienst (DWD), Germany

WMO RA VI RCC-LRF Node, Meteo- France (M-F), France
Over the Pacific Ocean:
Neutral "El Niño" conditions
Present ENSO indicators still show neutral ENSO conditions. However, the notable cooling of the equatorial Pacific, particularly in the subsurface, gives some potential for a beginning La Niña development, and also some model forecasts show this. However, for summer 2020, neutral conditions are still likely.
Tropical Pacific has been neutral since July 2019
SST were near to above average from October 2019 to April 2020 and return to near average levels in May.
During June, July, and August, model prediction and expert opinion indicate a 60% chance of ENSO neutral condition during this summer.
The probability of La Niña is near 30% and for the EL Niño development is 10%.
Oceanic Analysis

Over the Maritime Continent and the Indian Ocean:
The IOD was still neutral in April 2020. However, some models forecast a negative IOD at least temporarily for July and August 2020.

Over the Atlantic:
From March to April 2020, there was a cooling in the northern tropics, especially close to the African coast.
Outside the tropics, a dipole of anomalies existed with negative anomalies over the middle latitudes (north of 45°N) and positive anomalies over the subtropics. This pattern, which continued in May 2020, tends to favour an East Atlantic (EA) circulation pattern (Duchez et al., 2016) and blocking regimes (Guemas et al., 2010).
Over the Mediterranean and Black Sea:

The western Mediterranean had above-normal temperatures in April, while the eastern Mediterranean temperatures were around normal. The Black Sea was warmer than normal.
Monthly SOI for April 2020 was close to zero and means mainly neutral ENSO conditions,

**MJO (Madden Julian oscillation)**
MJO became active in April 2020 and moved from the western Pacific over Africa to the Indian Ocean. It could have contributed to some of the upward motion anomalies during the month.

**Geopotential height at 500 hPa**
An anticyclonic anomaly extended from eastern parts of North Africa to Middle East but also some western parts (Morocco) were under above-normal cyclonic influence on monthly average.
Sea level pressure and circulation types

• Low pressure influence also over the eastern Mediterranean region including Middle East and Egypt.

• During the whole winter 2019-2020 a long NA+ positive phase, that changed in late March 2020 to negative.

• The north Atlantic oscillation was neutral or slightly in a positive phase in April 2020
Monthly precipitation totals in April 2020 in the Arab domain were mostly below 20 mm. In some parts of northern Morocco, the coastal zone of Algeria and north of Tunisia, rainfall amounts exceeding 40 mm were registered. In the Southern Arabian Peninsula, south of Soudan, Ethiopia and the extreme north of Irak, precipitation has exceeded 100 mm.

Anomalies (1981-2010 reference) were mostly below normal during this month of the year with less than 20% of the normal. In some parts of the North west of Algeria, south of Saudi Arabia, Ethiopia, anomalies were above normal. These regions received between 75% and 125% of the normal.
TEMPERATURE

Average Temperature (°C)
April 2020

Anomaly Temperature in °C (Base period: 1981-2010)
April 2020

Temperature Terciles for April 2020
Data source: NCEP/NCAR-Reanalysis

- Below normal
- Near normal
- Above normal
Temperature in Arab Region

For April 2020, the land mean temperature of the Arab region was above the normal 1981-2010, it has reached +2°C in some area, like south of north Africa domaine, and the south of Arabian peninsula, Yemen, South of Soudan an Ethiopia.

Monthly mean temperature in April 2020 mostly ranged from 15°C to 28 °C, in small parts reaching 10°C, especially in northern part of North Africa domaine and Middle East. In some parts of the southern Morroco, Algeria, Lybia , Soudan Ethiopia and the south of Saudi Arabia , the mean temperature was above 30°C . Compared to 1981-2010 reference, temperature anomalies were mostly above normal. They were in a range between +1 and +2°C in Tunisia, most part of Morocco and Algeria, the west part of Libya, between +2 and +3 °C in the center of Libya and in the south east of Algeria, The temperature anomaly exceeded 2 ° C in a large area of the Arabian peninsula, south of Soudan and Ethiopia.
Thanks for you attention