Climate Monitoring and Assessment of the Current State of Climate
- October 2023 -

WMO RA I North Africa RCC Tunisian Node
National Institute of Meteorology (INM)
Tunis, Tunisia

Hanene Mairech & Soumaya Ben Rached

ArabCOF, 28 November 2023
Ocean Analysis for October 2023

- **Equatorial Pacific**: Large positive SST anomalies can be seen over the eastern equatorial Pacific, reaching the central equatorial Pacific. El Niño has developed over the summer and has strengthened to reach moderate to strong intensity level. The SST anomaly for the Nino3.4 region increased to +1.5 °C for the 3-month period August-October 2023.

- **North Pacific**: Warmer than normal in central parts. PDO- pattern is still present.

- **Indian Ocean**: An east-west gradient can be clearly detected south of the equator. Positive value of DMI (positive phase of IOD).
Ocean Analysis for October 2023

- **Atlantic Ocean**: Warm anomaly over the tropical Atlantic, more pronounced over the African coasts. In the central North Atlantic, SST was mostly close to normal, but clearly higher close to the European coasts.

- **Mediterranean Sea**: The western Mediterranean Sea was much warmer than normal and has further warmed since September 2023. The eastern Mediterranean shows a cooling trend since last month and October temperatures were closer to normal.
Assessment of Regional Land Temperature Over the Arab Region

Temperature anomaly is up to +0.7 °C for October 2023 (compared to 1991-2020 reference)
October 2023 ranks the 11th warmest October among the 20 warmest October on record
Assessment of October 2023 Temperature Over the Arab Region

- Monthly mean temperature in October 2023 ranged between 5°C and 40°C.
- The lowest values are over Northern Morocco and Algeria.
- The highest values are over Mauritanie, east of Soudan, Somalia and Saudi Arabia.
Assessment of October 2023 Temperature Over the Arab Region

- Above normal temperature over almost all the domain. Near normal temperatures are over the south-east of Algeria, Libya and the west of Somalia.
- Anomaly up to +4 °C especially over west coastlines of north Africa, over the east of Soudan, north of Somalia, south of Yemen.
- Terciles: Near to below normal temperature over south-east of Algeria, center and north east of Libya. Above normal temperature elsewhere.
Assessment of October 2023 Precipitation Over the Arab Region

- Precipitation are mainly located over the south of Soudan and over Somalia.
- Precipitation are below 300mm and the highest values are over the South of Somalia.
- Precipitation are below 40mm elsewhere. Most part of Sahaha is known as a dry zone.
Assessment of October 2023 Precipitation Over the Arab Region

- Below normal precipitation over the west part of the domain including Mauritania, Morocco, most of Algeria, Tunisia and west of Libya.
- Above normal precipitation over the east of Libya, Egypt, north of Soudan, Somalia and almost all the Arabian Peninsula.
- Near normal precipitation elsewhere.