



## SEASONAL FORECAST OUTLOOK FOR NORTH AFRICA

*December-January-February 2020/2021 issued November 2020*

Seasonal forecast outlook for North Africa RCC domain is based on the ARPEGE-Climat coupled model output jointly with seasonal forecasts issued from ECMWF, UK Met-Office and IRI. The ARPEGE-Climat v5.2 coupled model is running at MAROC-METEO super-computer each month to elaborate seasonal ensemble forecasts. Sets of 27 forecasts are initialized by 9 atmospheric analysis, taken from ECMWF database, and 3 ocean analysis (PSY2G3R4) issued from MERCATOR center.

We also try to exploit the sources of predictability contained in the sea surface temperature (SST) by statistical methods when it is possible. We note, however, that this influence is not the same from one region to another or throughout all the year.

**NB:**

- 1. New:** Multi-model probabilistic forecasts from Copernicus C3S and WMO LC-LRFMME
- 2.** All dynamical forecasts are experimental.

## SYNTHESIS





































The analysis of current circulation, sea surface temperature, ENSO phenomenon and dynamical/statistical models outputs show probably for December-January-February 2020/2021:

- For temperature:
  - ✚ Probably above normal conditions over the Extreme North of Morocco, Northern Algeria and Tunisia, Eastern Libya, Egypt.
  - ✚ No special scenario elsewhere.
- For precipitation:
  - ✚ Probably below normal conditions over Northeastern Libya and Northern Egypt.
  - ✚ No special scenario elsewhere.

**NB:** Precipitation forecasts are given for September to May (the main rainy season). Temperature forecasts are given for January to December.

## TABLES SUMMARIZING SEASONAL FORECAST DECEMBER-JANUARY-FEBRUARY 2020/2021

### 1. Seasonal temperature forecast
















































Model/multi-model	Morocco	Algeria	Tunisia	Libya	Egypt
<i>ARPEGE-Climat</i>					
<i>ECMWF</i>	 NW & Ext S  Elsewhere	 Almost Algeria		 S  Elsewhere	 Almost Egypt
<i>UK Met-Office</i>	 Almost Morocco	 Almost Algeria		 N & W  C  Elsewhere	 Almost Egypt
<i>C3S</i>	 NW & S  Elsewhere	 NE & S  Elsewhere		 Almost Libya	
<i>LRF-NMME</i>					
<i>IRI</i>					
<b>Synthesis</b>	<b>Probably above normal conditions over the Extreme North. No special scenario elsewhere.</b>	<b>Probably above normal conditions over the North. No special scenario elsewhere.</b>	<b>Probably above normal conditions over the North. No special scenario elsewhere.</b>	<b>Probably normal to above normal conditions over the East. No special scenario elsewhere.</b>	<b>Probably above normal conditions.</b>

### Legend



N: North; S: South; W: West; E: East; C: Center; ATL: Atlas

## 2. Seasonal precipitation forecast

Model/multi-model	Morocco	Algeria	Tunisia	Libya	Egypt
<i>ARPEGE-Climat</i>				 Almost Libya	 Almost Egypt
<i>ECMWF</i>	 Almost Morocco	 NW  Elsewhere		 E & S  Elsewhere	 S  Elsewhere
<i>UK Met-Office</i>		 Almost Algeria	 S  Elsewhere		
<i>C3S</i>		 W & SE  Elsewhere		 CW & E  Elsewhere	 Almost Egypt
<i>LRF-NMME</i>	 Ext S  NW  Elsewhere	 CW  S  Elsewhere	 S  Elsewhere	 N  Elsewhere	 N & E  Elsewhere
<i>IRI</i>	 C & SE ATL side  NW  Elsewhere	 C  Elsewhere	 Almost Tunisia	 Ext N  Elsewhere	 Almost Egypt
<b>Synthesis</b>	<b>No special scenario.</b>	<b>No special scenario.</b>	<b>No special scenario.</b>	<b>Probably below normal conditions over the Northeast. No special scenario elsewhere.</b>	<b>Probably below normal conditions over the North. No special scenario elsewhere.</b>

### Legend



N: North; S: South; W: West; E: East; C: Center; ATL: Atlas