



## SEASONAL FORECAST OUTLOOK FOR NORTH AFRICA

*February-March-April 2021 issued January 2021*

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 February-March-April 2021:




































- For temperature:
  - ✚ No special scenario over Western Morocco.
  - ✚ Probably normal to above normal conditions over the remaining part of Morocco.
  - ✚ Probably above normal conditions over Algeria, Tunisia, Libya and Egypt.
- For precipitation:
  - ✚ Probably normal to below normal conditions over Libya and 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.**

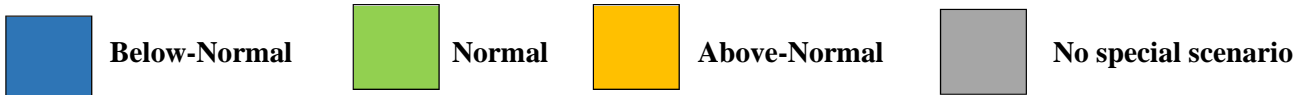
## TABLES SUMMARIZING SEASONAL FORECAST

### FEBRUARY-MARCH-APRIL 2021

#### 1. Seasonal temperature forecast
















































Model/multi-model	Morocco	Algeria	Tunisia	Libya	Egypt
<i>ARPEGE-Climat</i>					
<i>ECMWF</i>	 SE ATL side & SE  Elsewhere	 Almost Algeria		 Almost Libya	 Almost Egypt
<i>UK Met-Office</i>		 Almost Algeria		 to 	
<i>C3S</i>					
<i>LRF-NMME</i>					
<i>IRI</i>	 SW  Elsewhere	 Almost Algeria		 W  Elsewhere	 S & E  Elsewhere
<b>Synthesis</b>	No special scenario over Western Morocco. Probably normal to above normal conditions elsewhere.	Probably above normal conditions.	Probably above normal conditions	Probably above normal conditions.	Probably above normal conditions.

#### Legend



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

## 2. Seasonal precipitation forecast

Model/multi-model	Morocco	Algeria	Tunisia	Libya	Egypt
<i>ARPEGE-Climat</i>		 Ext N  Elsewhere	 N  Elsewhere	 Almost Libya	
<i>ECMWF</i>	 S  Elsewhere	 S & C  Elsewhere	 Almost Tunisia	 Almost Libya	 Almost Egypt
<i>UK Met-Office</i>	 Almost Morocco	 Almost Algeria		 Almost Libya	
<i>C3S</i>	 Ext N  Elsewhere	 N  Elsewhere	 Ext N  Elsewhere	 Almost Libya	
<i>LRF-NMME</i>	 S  Elsewhere	 N  SW  Elsewhere		 N  SE  Elsewhere	 N  S  Elsewhere
<i>IRI</i>	 Almost Morocco	 N  Elsewhere	 Ext N  Elsewhere	 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 normal to below normal conditions.</b>	<b>Probably normal to below normal conditions.</b>

### Legend



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