

ROYAUME DU MAROC

Ministère de l'Équipement,
du Transport, de la Logistique et de l'Eau
Département de l'Eau

DIRECTION DE LA METEOROLOGIE NATIONALE



المملكة المغربية
وزارة التجهيز والنقل
واللوجستيك والماء
قطاع الماء
مديرية الأرصاد الجوية الوطنية

SEASONAL FORECAST OUTLOOK for North Africa

January-February-March 2019 issued December 2018

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 EUROSIP 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 January-February-March 2019:

- For temperature:
 - ✚ Near normal conditions over Morocco except the NW where no special scenario is given.
 - ✚ Near normal conditions over Algeria, Tunisia, Libya and Egypt.
- For precipitation:
 - ✚ No special scenario over Morocco, Algeria, Tunisia, Libya and Egypt.





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 for January-February-March 2018

1. Seasonal temperature forecast








































Model/multi-model	Morocco	Algeria	Tunisia	Libya	Egypt
<i>ARPEGE-Climat</i>					
<i>ECMWF</i>	 SE&SE ATL side  Elsewhere			 Almost Libya	 Almost Egypt
<i>UK Met-Office</i>	 W  Elsewhere				
<i>EUROSIP</i>	 W  Elsewhere				
<i>LRF-NMME</i>					
<i>IRI</i>	 SE ATL side  Elsewhere	 N & SC  Elsewhere	 S  Elsewhere	 CW  Elsewhere	 Ext N  Elsewhere
Synthesis	Probably near normal conditions except the NW	Probably near normal conditions	Probably near normal conditions	Probably near normal conditions	Probably near normal conditions

Legend

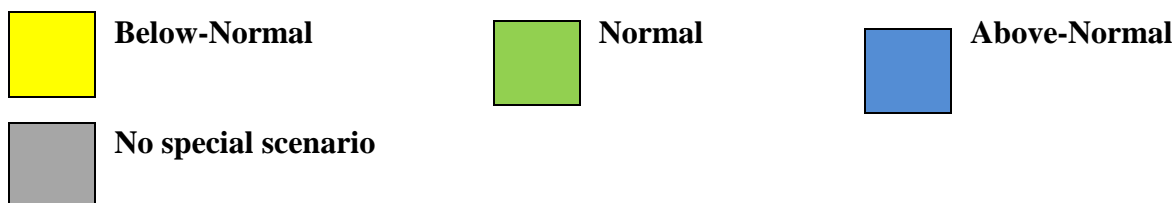
 **Below-Normal**
  **Normal**
  **Above-Normal**
 **No special scenario**

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

2. Seasonal precipitation forecast

Model/multi-model	Morocco	Algeria	Tunisia	Libya	Egypt
<i>ARPEGE-Climat</i>					
<i>ECMWF</i>		 Almost Algeria		 Almost Libya	
<i>UK Met-Office</i>	 NW  Elsewhere				 C  Elsewhere
<i>EUROSIP</i>					
<i>LRF-NMME</i>	 N  Elsewhere	 N  Elsewhere	 E  Elsewhere	 N  Elsewhere	 S  Elsewhere
<i>IRI</i>	 NE  Elsewhere	 Almost Algeria	 Almost Tunisia	 NW  Elsewhere	 Almost Egypt
Synthesis	No special scenario	No special scenario	No special scenario	No special scenario	No special scenario

Legend



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