

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

February-March-April 2019 issued January-2019

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 February-March-April 2019:

- For temperature:
 - ✚ Above normal condition over Morocco, Algeria, Tunisia, Libya and Egypt.
- For precipitation:
 - ✚ Normal to below normal conditions over Northwestern Morocco and Northern Egypt.
 - ✚ No special scenario is given over Algeria, Tunisia and Libya.




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 February-March-April 2019

1. Seasonal temperature forecast

Model/multi-model	Morocco	Algeria	Tunisia	Libya	Egypt
<i>ARPEGE-Climat</i>					
<i>ECMWF</i>	 S & Anti-ATL  Elsewhere	 NE & C  Elsewhere			
<i>UK Met-Office</i>	 S  Elsewhere				
<i>EUROSIP</i>					
<i>LRF-NMME</i>					
<i>IRI</i>	 SE ATL side & NE  Elsewhere			 W & SE  Elsewhere	 Ext N  Elsewhere
Synthesis	Probably above normal conditions	Probably above normal conditions	Probably above normal conditions	Probably above normal conditions	Probably above normal conditions



















































Legend

 **Below-Normal**
  **Normal**
  **Above-Normal**

 **No special scenario**

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>					
<i>ECMWF</i>	 S & Anti-ATL side  Elsewhere	 SW  Elsewhere		 Almost Libya	 N  Elsewhere
<i>UK Met-Office</i>	 Almost Morocco	 N  Elsewhere	 N  Elsewhere	 Almost Libya	 Almost Egypt
<i>EUROSIP</i>		 W  Elsewhere		 NE  Elsewhere	 N  Elsewhere
<i>LRF-NMME</i>	 S & C  SE ATL side  Elsewhere	 S & C  NE  Elsewhere	 N  Elsewhere	 N  Elsewhere	 N  Elsewhere
<i>IRI</i>	 C  MED side  Elsewhere	 N & SW  Elsewhere		 C  Elsewhere	 CE  Elsewhere
Synthesis	Probably normal to below normal over the NW. No special scenario elsewhere	No special scenario	No special scenario	No special scenario	Probably normal to below normal over the North. No special scenario elsewhere

Legend



Below-Normal



Normal



Above-Normal



No special scenario

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