

## 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

*May-June-July 2019 issued April-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:




































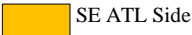














The analysis of current circulation, sea surface temperature, ENSO phenomenon and dynamical/statistical models outputs show probably for May-June-July 2019:

- For temperature:
  - ✚ Near normal conditions over Atlantic coast of Morocco, Northern Algeria and coasts of Tunisia.
  - ✚ Normal to above normal conditions over the remaining part of Morocco.
  - ✚ Above normal conditions over Libya, Egypt and the remaining part of Algeria and Tunisia.

**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 May-June-July 2019**

**1. Seasonal temperature forecast**

Model/multi-model	Morocco	Algeria	Tunisia	Libya	Egypt
<i>ARPEGE-Climat</i>	 C  Elsewhere		 S  Elsewhere	 NW  Elsewhere	 NE  W  Elsewhere
<i>ECMWF</i>	 N & E  Elsewhere	 NW  Elsewhere		 N & W  Elsewhere	 Almost Egypt
<i>UK Met-Office</i>	 NW  S  Elsewhere	 to 	 S  Elsewhere	 to 	
<i>EUROSIP</i>		 C & S  Elsewhere	 S  Elsewhere		
<i>LRF-NMME</i>	 SE ATL Side  Elsewhere	 Almost Algeria			
<i>IRI</i>	 E  Elsewhere	 Almost Algeria	 N & E  Elsewhere	 N & C  Elsewhere	 N & E  Elsewhere
<b>Synthesis</b>	<b>Probably normal conditions over Atlantic coast and normal to above normal elsewhere</b>	<b>Probably normal conditions over the North and above normal conditions elsewhere</b>	<b>Probably normal conditions over the Coasts and above normal conditions elsewhere</b>	<b>Probably above normal conditions</b>	<b>Probably above normal conditions</b>

**Legend**

 Below-Normal       Normal       Above-Normal

 No special scenario

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