

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

October-November-December 2019 issued September-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 October-November-December 2019:

- For temperature:
 - ✚ No special scenario over the Atlantic coast of Morocco and Tunisia.
 - ✚ Probably normal to above normal conditions over the remaining part of Morocco and Algeria
 - ✚ Probably above normal conditions over 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 October-November-December 2019

1. Seasonal temperature forecast

Model/multi-model	Morocco	Algeria	Tunisia	Libya	Egypt
<i>ARPEGE-Climat</i>	 Atlantic coast  Elsewhere				
<i>ECMWF</i>	 C  Elsewhere	 CE  Elsewhere	 S  Elsewhere	 Almost Libya	
<i>UK Met-Office</i>					
<i>EUROSIP</i>					
<i>LRF-NMME</i>	 Almost Morocco				
<i>IRI</i>	 SW  Elsewhere	 NE  Elsewhere		 N  Elsewhere	 NW  Elsewhere
Synthesis	No special scenario over Atlantic coast Probably normal to above normal conditions elsewhere	Probably normal to above normal conditions	No special scenario	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>					 Ext NE  Elsewhere
<i>ECMWF</i>	 Almost Morocco			 N  Elsewhere	
<i>UK Met-Office</i>		 S  Elsewhere		 Almost Libya	
<i>EUROSIP</i>	 S & CW  Elsewhere	 Ext N  Elsewhere	 Ext N  Elsewhere		
<i>LRF-NMME</i>	 S  Elsewhere	 S  Elsewhere		 S  Elsewhere	 S  Elsewhere
<i>IRI</i>	 NW  Elsewhere	 S  Elsewhere	 N  Elsewhere	 NW  Elsewhere	 N  Elsewhere
Synthesis	No special scenario	No special scenario	No special scenario	No special scenario	No special scenario

Legend



Below-Normal



Normal



Above-Normal



No special scenario

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