

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

September-October-November 2019 issued August-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 September-October-November 2019:

- For temperature:
 - ✚ No special scenario over the Atlantic coasts of Morocco.
 - ✚ Probably normal to above normal conditions over the remaining part of Morocco, Libya and Egypt.
 - ✚ Probably above normal conditions over Algeria and Tunisia.
- For precipitation:
 - ✚ No special scenario is given 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 September-October-November 2019

1. Seasonal temperature forecast

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