

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 2020 issued December 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 January-February-March 2020:

- For temperature:
 - ▣ Probably normal to above normal conditions over almost all of Morocco, Algeria, Tunisia, Libya and Egypt.
- For precipitation:
 - ▣ Probably normal to below normal conditions over North of Morocco, of Algeria and of Egypt.
 - ▣ No special scenario elsewhere

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 2020

1. Seasonal temperature forecast

Model/multi-model	Morocco	Algeria	Tunisia	Libya	Egypt
ARPEGE-Climat				 Almost Libya	
ECMWF	 N&W  Elsewhere	 NW  Elsewhere			
UK Met-Office			 N  S	 W  Elsewhere	 Almost Egypt
LRF-NMME					
IRI	 ATL&SE ATL Side  Elsewhere	 Almost Libya except S	 Almost Tunisia	 Almost Libya	 Almost Egypt
Synthesis	Probably normal to above normal conditions over almost Morocco	Probably normal to above normal conditions	Probably normal to 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>				 NE  Elsewhere	 SW  Elsewhere
<i>ECMWF</i>	 Almost N  Elsewhere	 Ext N & NW  Elsewhere		 NE  Elsewhere	 N  Elsewhere
<i>UK Met-Office</i>	 C  Elsewhere	 Almost Algeria	 N  Elsewhere	 Almost Libya	 Almost Egypt
<i>LRF-NMME</i>	 S  Elsewhere	 N  Elsewhere  S	 N  Elsewhere	 Ext N  S  Elsewhere	 Ext N  Elsewhere
<i>IRI</i>	 Almost N  Elsewhere	 Almost N  Elsewhere	 Almost Tunisia	 Almost Libya	 Almost Egypt
Synthesis	Probably normal to below normal conditions over the North. No special scenario elsewhere.	Probably normal to below normal conditions over the North. No special scenario elsewhere.	No special scenario elsewhere.	No special scenario elsewhere.	Probably normal to below normal conditions 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; ATL: Atlas