



WMO Northern Africa
RCC Network

WMO RA VI
RCC Network



**Step 3 of the
MEDITERRANEAN CLIMATE OUTLOOK FORUM (MedCOF-12)
Updated 29th May 2019**

**SEASONAL OUTLOOK FOR THE SUMMER SEASON 2019 FOR THE
MEDITERRANEAN REGION**

Climate experts from WMO RA VI RCC Network Node on long-range forecasting (Meteo France), WMO RA VI RCC Network Node on climate monitoring (Deutscher Wetterdienst, Germany), WMO Northern Africa RCC Network Node on long-range forecasting (Directorate of National Meteorology, Morocco), WMO Northern Africa RCC Network Node on climate monitoring (National Institute of Meteorology, Tunisia), South East Europe Virtual Climate Change Centre (SEEVCCC, Serbia), National Hydrometeorological Services and Research Institutes of MedCOF region provided their valuable contribution to the successful implementation of MedCOF-12 by developing the relevant documents and providing scientific guidance and recommendations.

The MedCOF-12 comprised of the following steps:

- Step 1: verification of the MedCOF-11 seasonal forecast
- Step 2: assessment of the current state of the climate including large-scale climate patterns worldwide and assessments of its likely evolution in the course of the next months;
- Step 3: building the consensus forecast for 2019 summer season.

All relevant documentation is posted and updated in MedCOF web site:
<http://www.medcof.aemet.es> .

MedCOF- 12 CLIMATE OUTLOOK FOR THE 2019 SUMMER SEASON¹

This prediction is based on output from dynamical models, statistical models and known teleconnections of large-scale climate features.

Observed sea surface temperatures in the east-central tropical Pacific exhibited weak El Niño conditions during February-April 2019. The sea surface temperatures in the Niño 3.4 and Niño 3 regions, both of which are often used to characterize El Niño/Southern Oscillation (ENSO) conditions, are predicted to be approximately 0.7 to 0.9 °C above average during the June-August 2019 season, and hence, remain at weak El Niño levels. This tendency towards weak El Niño conditions is consistently predicted by a majority of dynamical models. However, the spread between models is rather high, with a considerable number of simulations overpassing the +1°C anomaly: hence, the ENSO situation must be monitored in the months to come.

No extra-tropical connections are visible, and consequently the signal seems to be trapped in low latitudes. Differences between models are noticeable for the North Atlantic and Europe circulation, however a blocking pattern and relative low geopotential over Central Atlantic are foreseen by most of them.

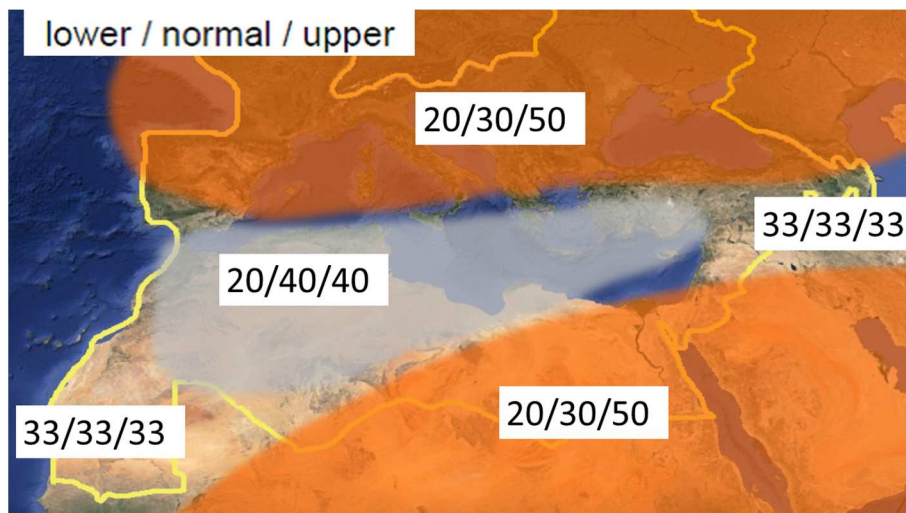


Figure 1. Graphical presentation of the 2019 summer temperature outlook. The maps show the probabilistic consensus forecast for tercile categories of anomalies for seasonal mean temperature, relative to the period 1981-2010. Due to the climate warming trend anomalies are affected by the selected reference period.

¹The graphical representation of climate outlook in this statement is only for guidance purposes, and does not imply any opinion whatsoever concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

Within this general context, temperature should be warmer than normal for most of the European continent. Over North Africa, a west-east temperature gradient is expected by majority of models, with consensus for upper tercile over its northeastern part. South eastern Levantine Sea and Arabian Peninsula show a consistent warm signal too. A less clear signal appears over northwestern Africa and the rest of the Mediterranean Sea, with similar probabilities for upper and medium tercile, and lower chances for the colder one.

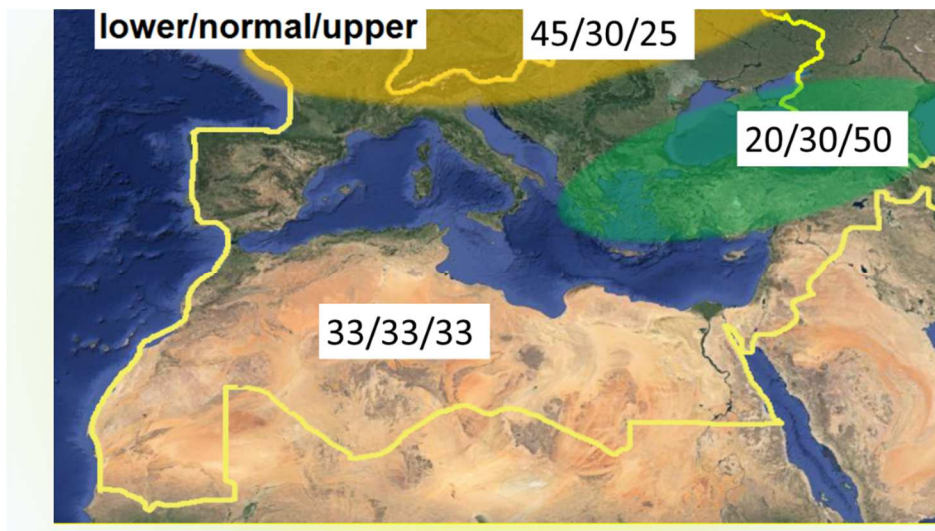


Figure 2. The same as figure 1 but for precipitation.

Precipitation shows drier than normal conditions over North-Central Europe affecting the Northern Balkans and wetter than normal over the Eastern part of the domain. For the rest of the region no large-scale precipitation signal is present in the forecasts (see figure 2). The climatological forecast (33, 33, 33) over the Southern part of the domain also implies the fact that no meaningful forecast can be provided for these seasonally dry areas.

Sub-seasonal variations, not predictable a long time in advance, may dominate at times, so regular updates to the forecast are strongly recommended. In addition, local factors (for example SSTs in the smaller basins of the region) may shape local variability at a regional level.

Note that it is necessary to express seasonal forecasts in terms of probability due to inherent uncertainty. Notice that the sub-Regional Climate Outlook Forums (SEECOF and PRESANORD) can provide smaller scale details. Any further advice on the forecast signals, smaller scales, shorter-range updates and warnings will additionally be available throughout the summer from the National Meteorological Services, along with details on the methodology and skill of long-range predictions.