

**Step 3 of the
MEDITERRANEAN CLIMATE OUTLOOK FORUM (MedCOF-20)
Updated 26th May 2023**

**SEASONAL OUTLOOK FOR THE SUMMER SEASON 2023 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-20 by developing the relevant documents and providing scientific guidance and recommendations.

The MedCOF-20 comprised of the following steps:

- Step 1: verification of the MedCOF-19 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 2023 summer season.

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

MedCOF- 20 CLIMATE OUTLOOK FOR THE 2023 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 and forecast for the coming three months show above normal temperatures on the Tropical Pacific evolving towards a moderate El Niño event. Over the Indian Ocean, a positive phase of Indian Ocean dipole (IOD) is observed. However, models don't agree on showing a teleconnection towards MedCOF domain. Current above normal sea surface temperature anomalies over Tropical and Eastern North Atlantic are suggested to continue. In the atmosphere, models tend to show more frequency of high latitude blocking, with zonal regimes less favored. Below normal pressures are shown by most models, although there are spatial differences in the position of the main anomaly patterns. With this general context, above normal temperatures can be expected over most of the domain, with the exception of Northwestern Africa and Northeastern part of MedCOF domain, where normal to above temperatures are expected. The warm signal seems more intense over the rest of Northern Africa, Mediterranean Sea and parts of the Middle East.

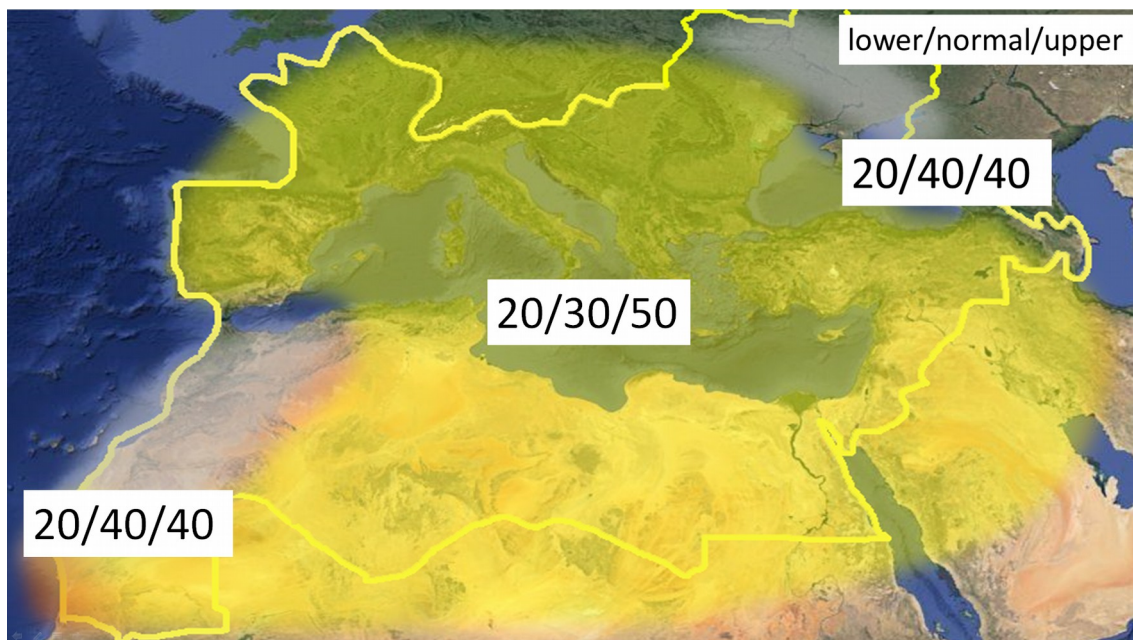


Figure 1. Graphical presentation of the 2023 summer temperature outlook. The maps show the probabilistic consensus forecast for tercile categories of anomalies for seasonal mean temperature,

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.

relative to the period 1991-2020. Due to the climate warming trend, anomalies are affected by the selected reference period.

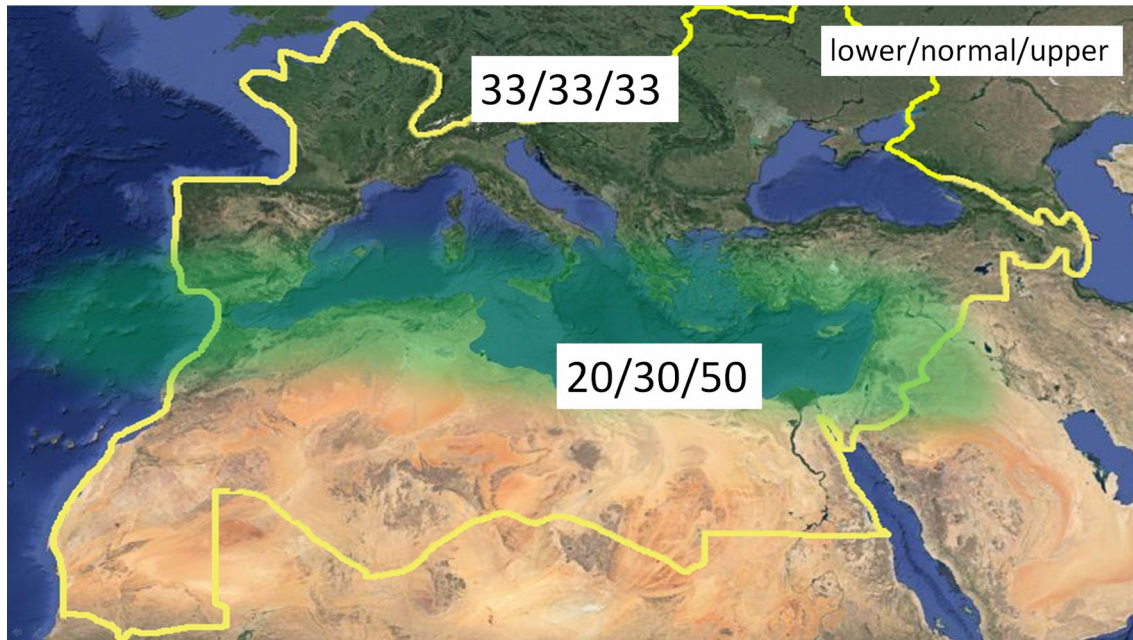


Figure 2. The same as figure 1 but for precipitation.

Precipitation forecasts show wet signal over most of the Mediterranean Sea. Although summer is climatologically very dry over Northern Africa, models show wet signal over North Africa, so some precipitation events can be expected over Mountain areas of northern Morocco, Algeria and Tunisia. The climatological forecast (33, 33, 33) over the Southern part of the domain also takes into account 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.