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**Step 3 of the
MEDITERRANEAN CLIMATE OUTLOOK FORUM (MedCOF-16)
Updated 21st May 2021**

**SEASONAL OUTLOOK FOR THE SUMMER SEASON 2021 FOR THE
MEDITERRANEAN REGION**

Climate experts from WMO RA VI RCC Network Node on long-range forecasting (Météo 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-16 by developing the relevant documents and providing scientific guidance and recommendations.

The MedCOF-16 comprised of the following steps:

- Step 1: verification of the MedCOF-15 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 2021 winter season.

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

MedCOF- 16 CLIMATE OUTLOOK FOR THE 2021 SUMMER SEASON¹

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

Winter La Niña event has weakened during last months, evolving towards neutral conditions, situation that is expected to continue during summer season. Positive sea surface temperature anomalies appear over Atlantic Ocean, south of Greenland, and negative ones over North Sea. Within this general context, higher than normal pressures are expected over large parts of central Europe, and lower than normal over parts of Northern Africa and Middle East.

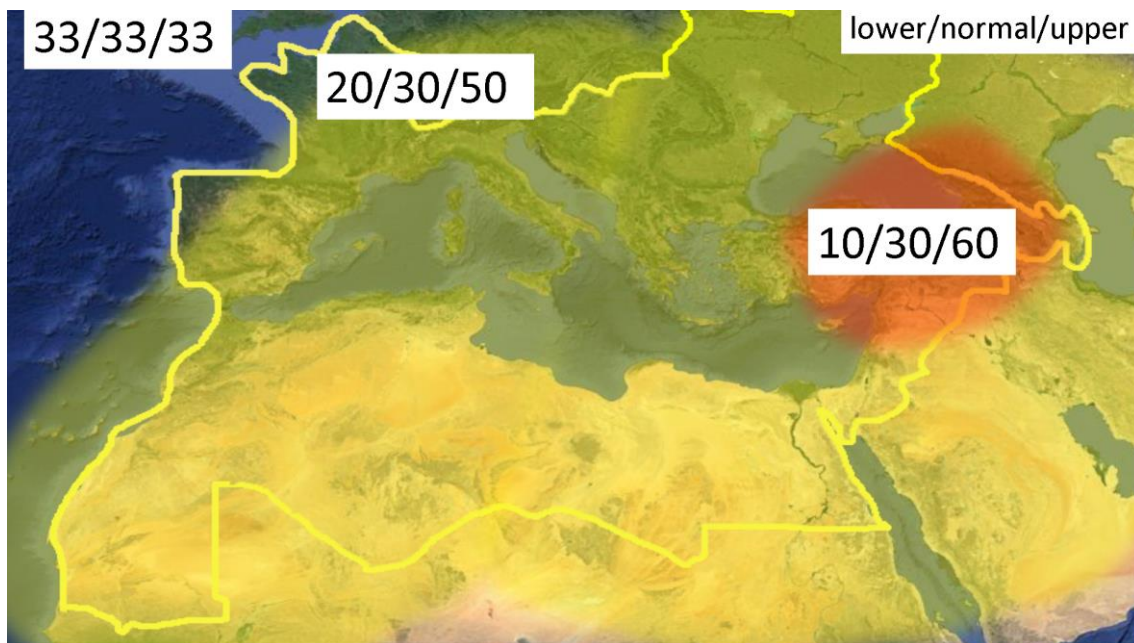


Figure 1. Graphical presentation of the 2021 summer temperature outlook. The maps show the probabilistic consensus forecast for tercile categories of anomalies for seasonal mean temperature, relative to the period 1981-2010. Due to the climate warming trend anomalies are affected by the selected reference 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.

The majority of models show warmer than normal conditions over most of the domain. Negative pressure anomalies over Eastern Mediterranean area, and low models skill over Western area (France, Iberia and Morocco) add uncertainty over those areas.

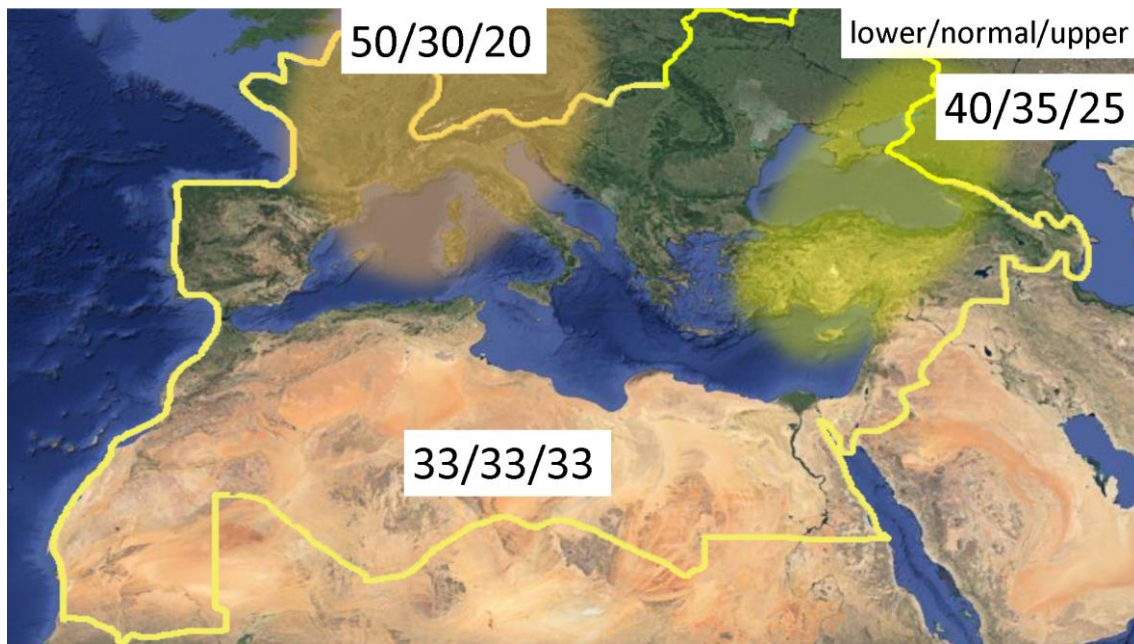


Figure 2. The same as figure 1 but for precipitation.

Precipitation forecasts shows drier than normal conditions over France and Northwestern Mediterranean Sea. A less robust dry signal appears over Turkey, Southeastern Ukraine and Western Caucasus. 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



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throughout the winter from the National Meteorological Services, along with details on the methodology and skill of long-range predictions.