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**Step 3 of the
MEDITERRANEAN CLIMATE OUTLOOK FORUM (MedCOF-10)
Last updated 25th May 2018**

**SEASONAL OUTLOOK FOR THE SUMMER SEASON 2018 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-10 by developing the relevant documents and providing scientific guidance and recommendations.

The MedCOF-10 comprised of the following steps:

- Step 1: verification of the MedCOF-9 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 2018 summer season.

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

MedCOF- 10 CLIMATE OUTLOOK FOR THE 2018 SUMMER SEASON¹

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

The tropical Pacific is returning to neutral conditions from la Niña Event. Above average temperatures appear on western and northern tropical Pacific, and below average temperatures appear on eastern and southern region. The trend of ENSO based on prediction models indicates neutral state with some slightly above average temperatures. Over the Atlantic Ocean, cold anomalies are developing over the northern tropical region, and western African Coast, trend confirmed by forecasts. Some models suggest a warm tongue could develop over the equator. In the extratropics, warm anomalies persist in the western North Atlantic and north of Europe. Over the Mediterranean sea SST is warmer than normal, particularly over the Eastern part of the basin. Most drivers are in neutral or close to neutral state. TNA seems to be developing a negative anomaly, but still close to neutral. TASI is currently below normal values, and is expected to continue like that for the summer.

There is no good agreement between models. Some of them show certain trend to more frequent than normal NAO+ pattern, which is consistent with SST anomalies over the Atlantic, so their forecast is considered more likely than others.

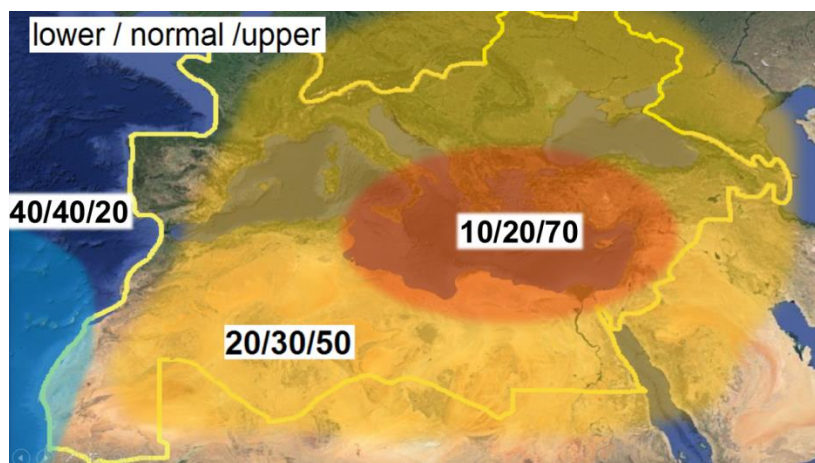


Figure 1. Graphical presentation of the 2018 summer temperature outlook. The maps show the probabilistic consensus forecast for tercile categories of anomalies for seasonal mean temperature, relative to the period 1981-2010. Due to the climate warming trend anomalies are affected by the selected reference 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.

Temperatures will probably be warmer than normal over most of Eastern MedCOF domain (see figure 1) being the warm tercile more probable over Eastern Mediterranean and Southern/SouthEastern Europe, with good agreement among most models. Models still show relatively high probability of warm tercile over the rest of MedCOF area, with less agreement for the Western End of it. On the other hand, some models forecast below normal temperatures over Atlantic Ocean and western shores of Morocco and Mauritania, which is consistent with SST anomalies.

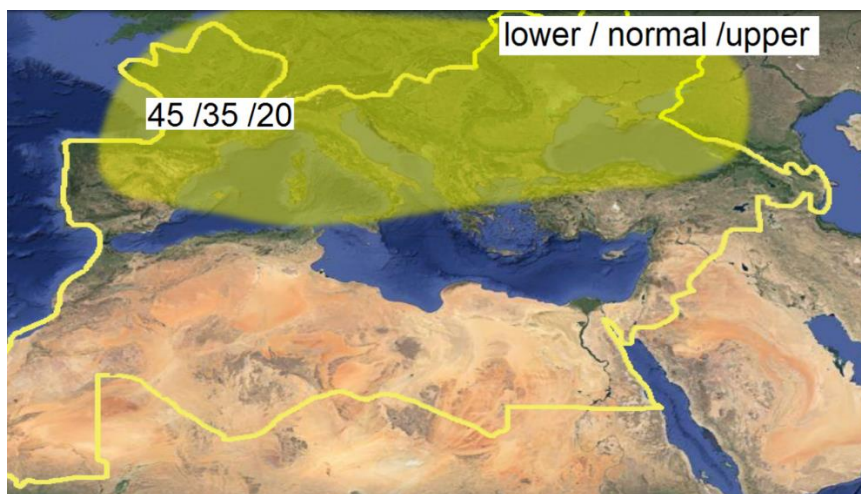


Figure 2. The same as figure 1 but for precipitation.

Precipitation forecast are in less agreement than for temperature. Some models (like ECMWF S5, EUROSIP), show trend to drier than normal summer over northernmost part of the domain, while MF S6 show drier than normal summer for Western Mediterranean, associated with NAO+ predominancy. Drivers like TASI and TNA suggest drier than normal summer over countries north of Mediterranean and Black Seas, and North Eastern Iberian Peninsula. Combining all this factors, drier than normal summer can be forecasted over northern part of MedCOF area, with moderate uncertainty.

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



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(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.