

Seasonal weather forecast for the months of

January, February and March 2020

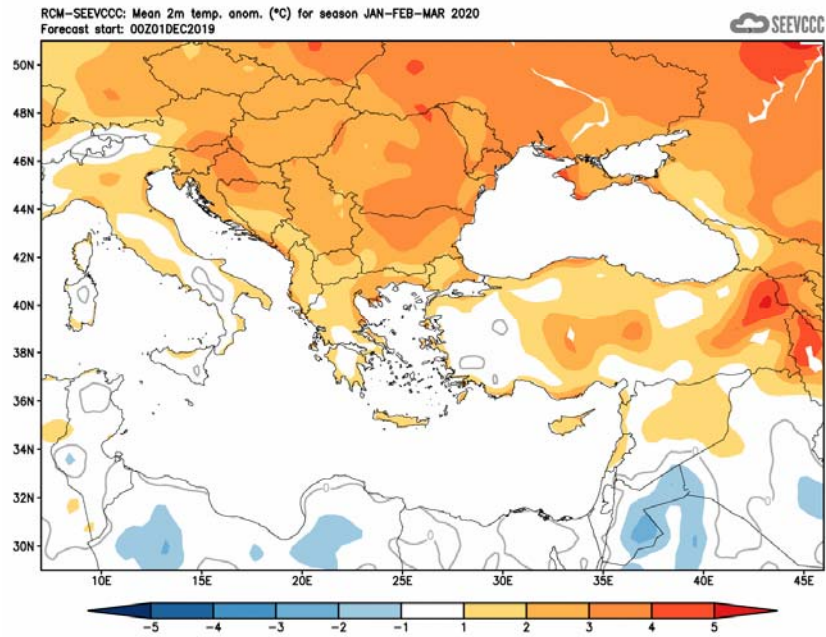
General overview of the weather expected to prevail during January, February and March 2020.

The weather for the following period consists of a part (January and February) of the traditional winter, where the most of the annual accumulated precipitation is climatologically expected, while in the period in focus normal temperatures (both maximum and minimum) are significantly lower than the other months of the year and the first month (March) of the traditional Spring, which is also a part of the period of forecast. During the period the frequency of baroclinic depressions affecting the area is at its most resulting in higher accumulated precipitation amounts.

Seasonal forecast for the next three months

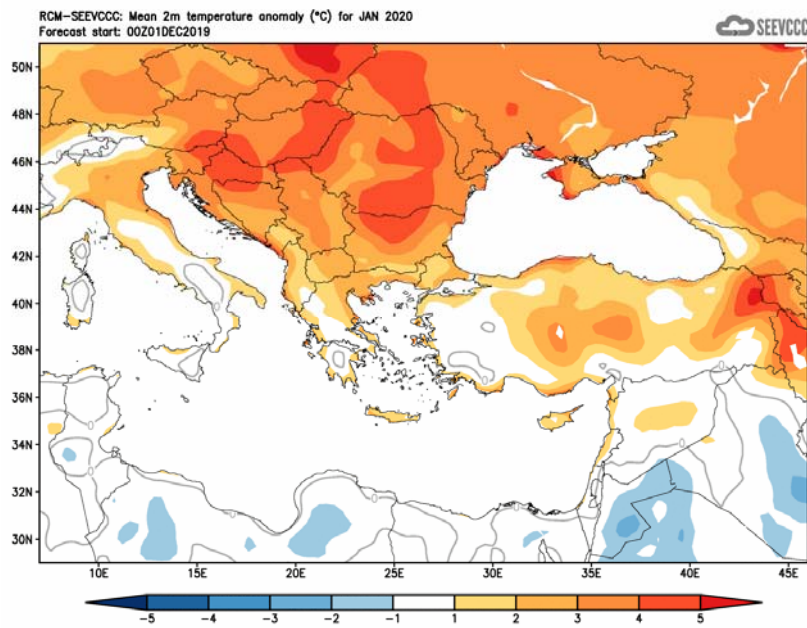
It is observed that the behaviour of the seasonal forecast is problematic since the accumulated precipitation, has a significant deviation from the observed values. For this reason, in this seasonal forecast, the seasonal accumulated precipitation will be omitted for reasons of compatibility with observed data. The Department of Meteorology has informed the Serbian Hydrometeorological Service, which the authority responsible for the issuance of the seasonal forecast for all the countries of Southeastern Europe, about the problem and suggested specific proposals. During the last hydrometeorological year the Department had to face the same problem with the seasonal forecast. It is reasonable to say that all the seasonal forecasts have limited abilities in various areas of the world among them the area of the eastern Mediterranean. The main problem seems to be the changes of the global climate drivers such as Sea Surface Temperature, Global ice/snow covered areas, North Atlantic Oscillation etc.

Specifically, regarding the seasonal forecast for the period of the three first months of the year (**January, February and March 2020**), the temperature is expected to be generally above normal by 1 to 2°C. The greater surrounding area is forecasted with almost the same characteristics as Cyprus.



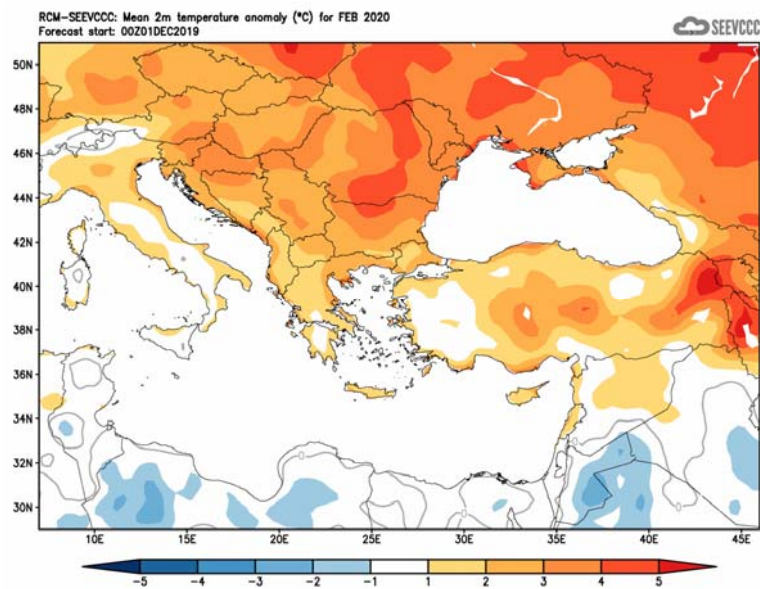
4 Divergence of temperature from normal from the mean seasonal temperature (°C) for January, February and March

The seasonal forecast for **January 2020** suggests that temperature will be slightly above normal (by 1°C to 2°C). The greater surrounding area is forecasted with almost the same characteristics as Cyprus.



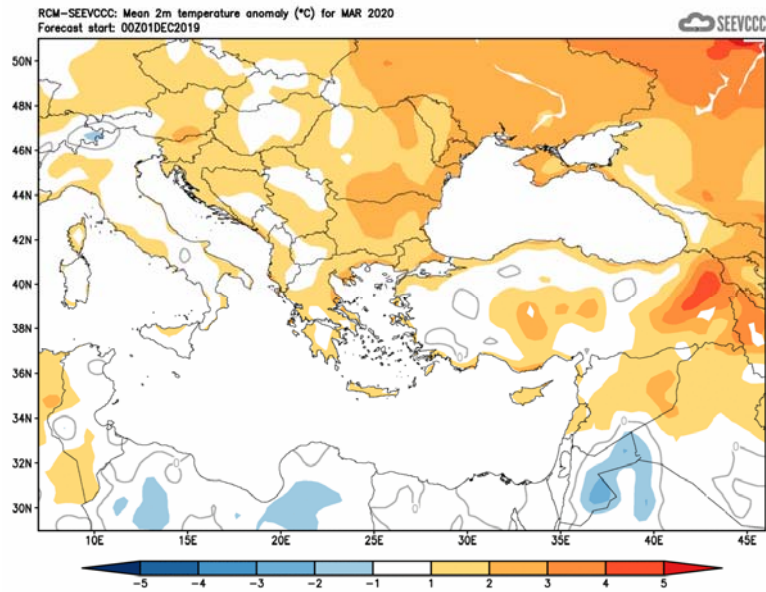
Divergence of the mean monthly temperature (°C) from normal during January

The seasonal forecast for **February 2020** is almost similar to the one of January. So it will be warmer than normal by 1°C to 2°C. The above temperature characteristics apply also for the surrounding area.



Divergence of the mean monthly temperature (°C) from normal during February

The seasonal forecast for **March 2020** is almost similar to the one of the previous months suggesting that **March** will be warmer than normal by 1°C to 2°C. The above temperature characteristics apply also for great parts of the surrounding area.



Divergence of the mean monthly temperature (°C) from normal during March

Normal values of temperature (mean maximum and mean minimum) and accumulated precipitation for January, February and March 2020

The normal values of mean maximum, mean minimum temperature and accumulated precipitation are presented below for sample stations, concerning the three months the period of forecast is covering, in order to gain a better view of the normal seasonal climate. The temperatures, both maximum and minimum, of **January** and **February** are the lowest climatological temperatures of the year while the accumulated precipitation has the greater amount of the year during **January**, as a result of the increased frequency of reoccurrence/redeveloping of depressions over the area of the east Mediterranean. During **March** a transitional month from winter to summer an increase of both mean maximum and mean minimum temperature is noted with a simultaneous drop of the accumulated precipitation over all sample stations.

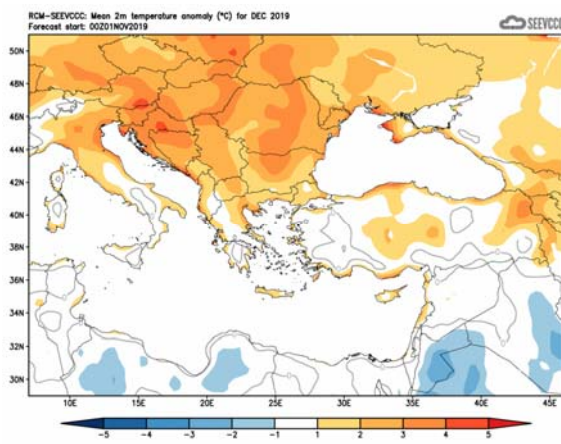
TEMPERATURE AND PRECIPITATION NORMAL VALUES FOR THE PERIOD 1981-2010									
Area Name	MEAN DAILY MAXIMUM TEMPERATURE (°C)			MEAN DAILY MINIMUM TEMPERATURE (°C)			MEAN MONTHLY TOTAL PRECIPITATION (mm)		
	January	February	March	January	February	March	January	February	March
NORTH COAST	16.3	16.3	18.3	7.6	7.3	8.3	85.3	68.5	45.7
WEST COAST*	17.1	17.1	18.6	8.3	8.1	8.9	78.8	59.8	34.4
MOUNTAINOUS AREAS	6.3	6.7	10.4	0.7	0.5	2.8	150.0	128.7	92.1
INLAND*	15.5	16.0	19.2	5.4	5.3	6.9	48.8	44.5	31.9
SOUTH COAST	16.8	17.0	19.3	7.5	7.1	8.6	73.7	50.3	35.8
EAST COAST**	16.3	16.5	19.1	6.6	6.3	7.8	67.3	50.7	35.2

* West Coast and Inland Values cover the period 1983-2010

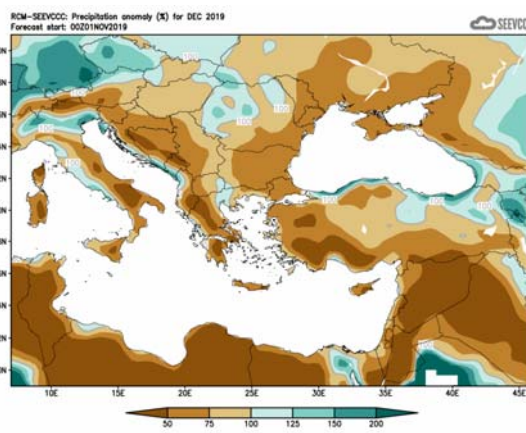
** East Coast Temperature Values cover the period 1981-2007

Evaluation of Decembers seasonal forecast for the area of Cyprus

The seasonal forecast for **December 2019** suggested that temperature would be above normal (by 1°C to 2°C) mainly over coastal areas. The accumulated precipitation of **December** was forecasted to be disappointing since it suggested a mainly dry month with accumulation ranking only from 50% to 75% of normal, except the south eastern coastal parts where the accumulation would range below 50% of normal. Low accumulations characterized all the surrounding area.



Divergence of the mean monthly temperature (°C)
from normal during December



Percentage of the mean monthly precipitation (%)
compared with the normal of December

From the provisional data recorded by the Department of Meteorology, for the selected portion of the meteorological stations, which are presented in the table below, is evident that the model did not perform well, since it did not forecast correct the accumulated precipitation

TEMPERATURE AND PRECIPITATION PROVISIONAL DATA FOR DECEMBER 2019														
St. No.	Station Name	Mean Daily Maximum Temperature (°C)	Normal Value (1981-2010)	Difference from Normal Value	Highest Daily Maximum Temperature (°C)	Lowest Daily Maximum Temperature (°C)	Mean Daily Minimum Temperature (°C)	Normal Value (1981-2010)	Difference from Normal Value	Lowest Daily Minimum Temperature (°C)	Highest Daily Minimum Temperature (°C)	Monthly Total Precipitation (mm)	Normal Value (1981-2010)	Difference from Normal Value
41	POLIS CHRYSOCHOUS	19.6	18.0	1.6	23.3	16.0	10.4	9.3	1.1	7.9	14.8	-	93.6	
82*	PAFOS (AIRPORT)	19.9	18.9	1.0	23.1	16.5	11.3	10.0	1.3	8.8	16.3	175.9	90.1	85.8
225	PRODROMOS (C.F.C.)	10.0	8.3	1.7	18.7	3.0	2.6	2.6	0.0	-1.0	7.7	331.0	157.3	173.7
666*	ATHALASSA (RADIOSONDE)	20.1	17.3	2.8	25.8	15.8	7.5	7.0	0.5	4.7	11.8	116.5	57.2	59.3
731	LARNAKA (AIRPORT)	19.8	18.6	1.2	24.3	16.0	10.9	9.2	1.7	8.0	14.7	239.2	79.0	160.2
800**	ACHNA (DASAKI)	18.5	18.0	0.5	22.2	15.2	8.8	8.3	0.5	5.3	13.3	156.8	76.8	80.0

* Pafos' and Athalassa's Station Normal Values cover the period 1983-2010
** Achna's Temperature Normal Values cover the period 1981-2007

= VALUES FROM AUTOMATIC WEATHER STATION

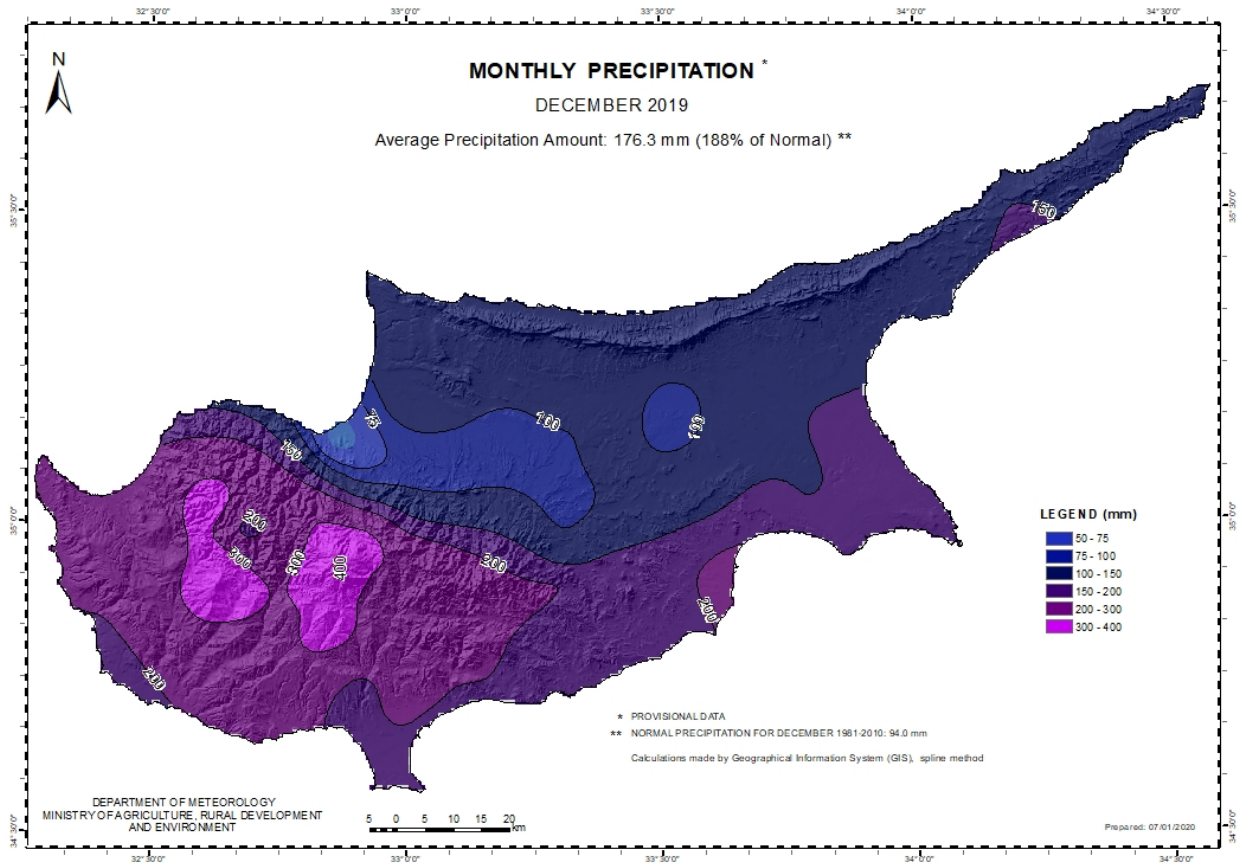
The seasonal forecast for **December** suggested that temperature would be normal inland and slightly above normal in most of the coastal areas. From the recorded data is shown that mean daily maximum and most of the mean daily minimum temperatures were near and above normal, not only inland but also for the coastal areas.

Extremes (deviating by 4°C or more from normal) were also recorded at a numerous of selected meteorological stations. As an example note the recorded maximum of Prodrornos that was 18.7°C (with a normal of 8.3°C) and the maximum of Athalassa that was 25.8°C (with a normal of 17.3°C). Concerning the mean daily minimum temperatures note the recorded minimum of Pafos that was 16.3°C (with a normal of 10°C) and the minimum of Larnaka that was 14.7°C (with a normal of 9.2°C).

As regarding the accumulated precipitation, **December** was a very wet month, as presented from the table above. From the distribution (provisional accumulated precipitation chart) of the accumulated precipitation of **December** is evident that the surface distribution was well above normal reaching 176,3mm (188% of normal). On the 1st, 4th, 6th and during the periods 8-15 and 23-31 of **December** local showers and thunderstorms were recorded. Also, for the periods 13-14, 23-26 and 29-30 of **December** EMMA yellow warning for showers, thunderstorms and wind were issued.

Based on the provisional data, hail was recorded on the 13, 14 and 29th of the month. Snowfall was recorded on the 9th and during the period 24-31 of the month.

For the purpose of better visualization of **December** accumulated precipitation, a chart of Cyprus with the total preliminary accumulated precipitation is presented.



A Cyprus chart with the normal (period 1981 to 2010) accumulated precipitation for the month of **December** is also presented.

