# Seasonal weather forecast for the months of

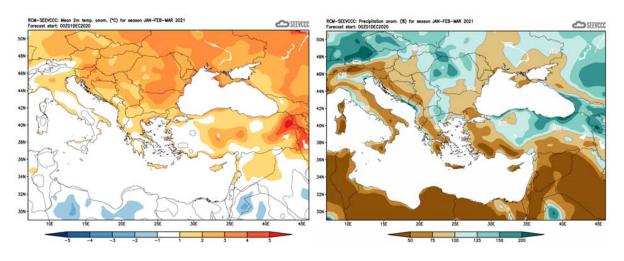
# January, February and March 2021

#### General overview of the weather expected to prevail during January, February and March 2021.

The weather for the following period consists of a part (January and February) of the traditional winter, where 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

Specifically, regarding the seasonal forecast for the period of the three first months of the year (January, February, and March 2021), the temperature is expected to be generally above normal by 1 to 2°C. The amount of the accumulated precipitation is relatively disappointing, as it will range between 50% to 75% of normal all over Cyprus, except the southwestern coasts, where the accumulated precipitation is expected to be below 50% of normal. The greater surrounding area is forecasted with almost the same characteristics as Cyprus (\*).

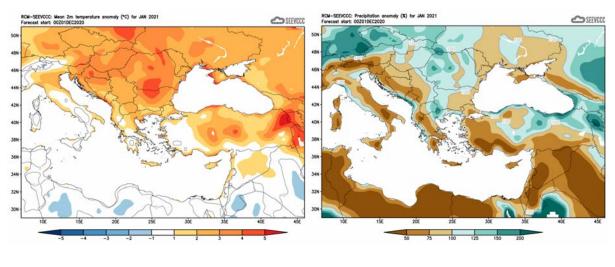


Divergence of temperature from normal from the mean seasonal temperature ( $^{\circ}$ C) for January, February and March

Percentage (%) of the mean seasonal accumulated precipitation compared to the mean normal for January, February and March

### The seasonal monthly forecast in detail

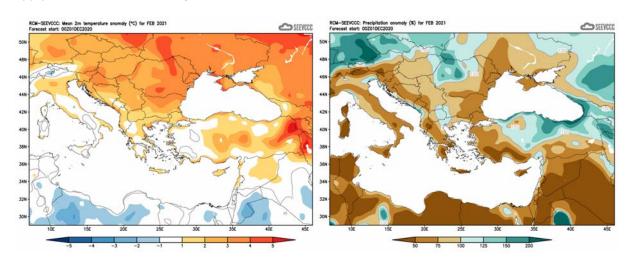
The seasonal forecast for **January 2021** suggests that temperature will be above normal (by 1°C to 2°C). The accumulated precipitation of **January** is again disappointing since the forecast suggests a mainly dry month with accumulation ranging between 50% to 75% of normal. Low accumulations are characterizing all the surrounding area (\*).



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

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

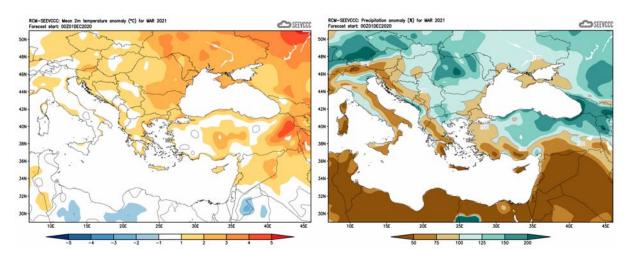
The seasonal forecast for **February 2021** is almost like the one of **January** as again it will be warmer than normal by 1°C to 2°C. The accumulated precipitation of **February** is again disappointing since the southern and eastern part of the island will not exceed 50% and over the rest of the areas will range between 50% and 75% of normal. The above temperature and accumulated precipitation characteristics apply also for the surrounding area (\*).



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

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

The seasonal forecast for **March 2021** is almost like the one of the previous months suggesting that **March** will be warmer than normal by 1°C to 2°C. The accumulated precipitation of **March** is again relatively disappointing since the forecast suggests that the accumulated precipitation will be below 50% of normal except northeast coasts that will range between 50% and 75% of normal. The above temperature and accumulated precipitation characteristics apply also for great parts of the surrounding area (\*).



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

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

# Normal values of temperature (mean maximum and mean minimum) and accumulated precipitation for January, February, and March 2021

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, 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, because 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.

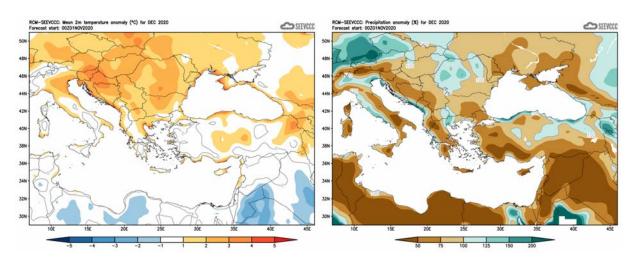
	TEM	PERATURE	AND PREC	IPITATION I	NORMAL V	ALUES FOR	THE PERIO	D 1981-20	10	
	MEAN DAILY MAXIMUM TEMPERATURE (°C)			MEAN DAILY MINIMUM TEMPERATURE (°C)			MEAN MONTHLY TOTAL PRECIPITATION (mm)			
Area Name	January	February	March	January	February	March	January	February	March	
NORTH COAST	16.3	16.3	18.3	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	

<sup>\*</sup> West Coast and Inland Values cover the period 1983-2010

<sup>\*\*</sup> East Coast Temperature Values cover the period 1981-2007

## **Evaluation of Decembers seasonal forecast for the area of Cyprus**

The seasonal forecast for **December 2020** 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 ranging only from 50% to 75% of normal, except the south eastern part 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,

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	-	18,0			-	-	9,3	-		-	74,9	93,6	-18,7
82*	PAFOS (AIRPORT)	21,4	18,9	2,5	23,3	18,7	11,9	10,0	1,9	8,6	16,4	31,8	90,1	-58,3
225	PRODROMOS (C.F.C.)	11,6	8,3	3,3	14,9	7,1	3,6	2,6	1,0	0,9	5,7	96,8	157,3	-60,5
666*	ATHALASSA (RADIOSONDE)	20,5	17,3	3,2	23,5	14,6	7,5	7,0	0,5	4,2	12,4	49,0	57,2	-8,2
731	LARNAKA (AIRPORT)	20,9	18,6	2,3	23,7	17,7	11,7	9,2	2,5	8,4	14,8	96,5	79,0	17,5
800**	ACHNA (DASAKI)	20,0	18,0	2,0	22,2	16,3	9,9	8,3	1,6	5,8	12,7	32,0	76,8	-44,8
		*					alues cover	•						

is evident that the model performed relatively well in relation with the accumulated precipitation. 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 much above normal, not only inland but also for the coastal areas and the mountainous range.

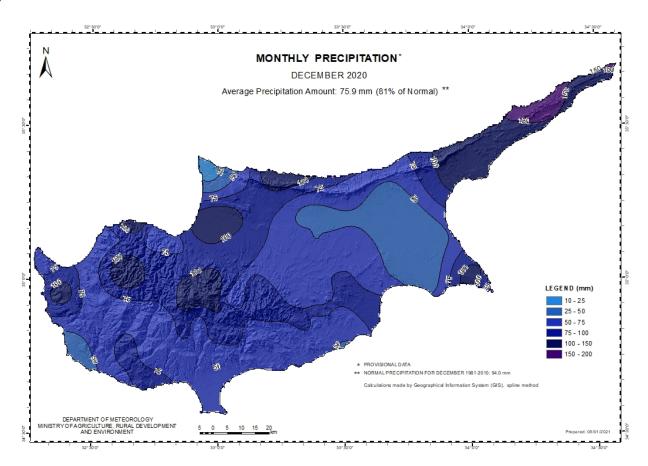
Extremes (deviating by 4°C or more from normal) were also recorded at most of the selected meteorological stations. As an example, note the recorded maximum of Prodromos that was 14.9°C (with a normal of 8.3°C) and the maximum of Athalassa that was 23.5°C (with a normal of 17.3°C). Concerning the mean daily minimum temperatures note the recorded minimum of Pafos that was 16.4°C (with a normal of 10°C) and the minimum of Larnaka that was 14.8°C (with a normal of 9.2°C).

From the distribution (provisional accumulated precipitation chart) of the accumulated precipitation of **December** is evident that the surface distribution was slightly below normal reaching 75,9mm or 71% of normal of the climatic period 1961-1990 or 81% of normal of the climatic period 1981-2010. The various climatic periods on which the accumulated precipitation is presented as a percentage must be mentioned since each climatic period has its own characteristics. During the periods 1-5, 7-11, 13-16 and on the 22nd of **December** local showers and thunderstorms were recorded.

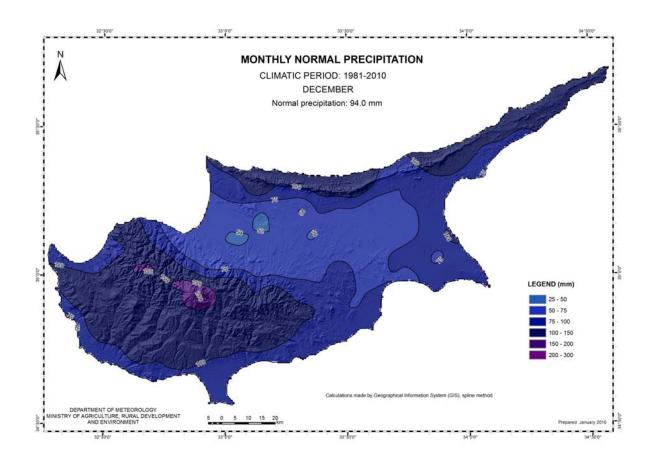
For the dates 1, 4, 5, 16 of **December**, yellow EMMA warnings were issued, whereas for the dates 14 and 15 of **December** orange warnings were issued. All of them were about showers, thunderstorms, and wind.

Based on the provisional data, hail was recorded on the 13<sup>th</sup> and on the 14<sup>th</sup> of the month. Trace of snow was recorded on the 3<sup>rd</sup> of the month at Troodos.

For the purpose of better visualization of **December** accumulated precipitation, a chart of Cyprus with the total preliminary accumulated precipitation and its percentage relative to the climatic period 1981-2010 is presented.



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



(\*) It is stated that due to the failure of the seasonal model to correctly forecast the expected precipitation (sometimes) the seasonal forecast for precipitation is given with a reserve.