## WINTER 2019/2020 CLIMATE OUTLOOK FOR

## THE REPUBLIC OF NORTH MACEDONIA

According to measurements and observations at main meteorological stations in the Republic of North Macedonia, the average winter air temperature was in the range from 0,5°C in Mavrovo to 7,0°C in Gevgelija.

This winter season in the Republic of North Macedonia air temperature deviations from the long term average 1981-2010 were positive in the range from 1,0°C to 2,2°C.

According to percentile calculation method, the entire territory of the country was classified with warm winter temperature and the east and southeast part from very warm to extremely warm (Table1).

Minimum air temperatures for winter 2019/2020 were with possitive deviation up to 1,7°C than the average, while the maximum air temperatures are also higher up to 3,3°C.

The absolute minimum temperature for winter 2020 was observed on 7<sup>th</sup> of February, in the eastern mountainous part of the country (Berovo -13,3°C) and highest daily winter air temperature was observed on 11<sup>th</sup> of February in southeast sub-mediterranean region (Demir Kapija 21.7°C).

Rainfall totals during winter season 2019/20 were in the range from 66mm in Stip up to 303mm in Mavrovo. These values are around (from 59% up to 105%) of the average values for winter season precipitations.

The wettest day was 23<sup>rd</sup> of December in Mavrovo with 60mm.

According to percentile calculation method, the winter 2019/2020 precipitation on the territory of Republic of North Macedonia were classified as normal for most of the territory (Table1).

Hydrometeorological Service of Republic of North Macedonia Meteorology Department

Climatological analysis for winter 2019/2020

Meteorological station	Temperature	Precipitation
Berovo	warm	normal
Kriva Palanka	warm	normal
Stip	very warm	dry
Strumica	very warm	normal
Demir Kapija	very warm	normal
Gevgelija	extremely warm	normal
Skopje	very warm	normal
Prilep	warm	normal
Bitola	warm	dry
Ohrid	warm	normal
Mavrovo	warm	normal

Table1: Air temperature and precipitation classification in the Republic of North Macedonia for winter 2019/2020 using percentile method compared to 1981-2010 base period

The values for the air temperature and the precipitation sums for this season and the distribution of tercile are shown in the Table 2 and 3, respectively.

HMS	Tavg (°)	1981-	2010
station	2019/2020	33	67
Berovo	1.1	-1.2	0.6
Kriva Palanka	2.3	0.4	1.4
Stip	4.3	1.8	3.2
Strumica	4.2	1.4	3.2
Demir Kapija	5.1	2.3	4.1
Gevgelija	7.0	4.5	5.6
Skopje	4.2	1.6	2.7
Prilep	3.0	0.5	2.3
Bitola	2.9	-0.5	2.0
Ohrid	3.7	2.1	3.1
Mavrovo	0.5	-2.7	-0.5

Table 2: Winter season 2019/2020 air temperature and tercile values for period 1981-2010

HMS	R (mm)	1981	-2010
station	2019/2020	33	67
Berovo	107.5	109.5	662.9
Kriva Palanka	110.1	106.9	665.4
Stip	65.9	71.3	500.0
Strumica	98.5	120.9	602.8
Demir Kapija	138.1	125.7	597.7

The SEECOF-22 forecast for the mean winter temperature placed Republic of North Macedonia in zone 2, which means to have more chances for above normal conditions (Figure 1). Forecast for the precipitation for DJF 2019/2020 categorized our country in zone 2 (Figure 2), which means that there are higher possibility for bellow normal precipitation this winter.

1064.5

## Hydrometeorological Service of Republic of North Macedonia

Meteorology Department

Climatological analysis for winter 2019/2020



Figure 1: Graphical presentation of the winter 2019/2020 temperature outlook



Figure 2: Graphical presentation of the winter 2019/2020 precipitation outlook