Palestinian Central Bureau of Statistics

Palestine

Palestinian Meteorological Directorate

Issued on: 21/03/2024

The Palestinian Central Bureau of Statistics (PCBS) and the Palestinian Meteorological Directorate (PMD) jointly issue a press release on the Occasion of the World Meteorological Day (WMD), under the theme "At the Frontline of Climate Action".

Every year on March 23rd, the World Meteorological Organization (WMO) celebrate the World Meteorological Day. This year's theme is "**At the Frontline of Climate Action".**

The following are the most prominent features of the weather in Palestine

All rain metrological stations have been destroyed during the Israeli occupation aggression on Gaza Strip

There are 12 stations in Gaza Strip to monitor rainfall amounts distributed from the north of Gaza Strip to its south. With the beginning of the Israeli occupation aggression on Gaza Strip on October 7th, 2023, all of these stations were completely destroyed, and therefore these stations will not be included in this press release due to the lack of their data.

The following are the most important features of the climate that prevailed during the year 2023:

Variation in rainfall amounts during the rainy season

PMD data, during the current rainy season 2023/2024 in the West Bank, showed that rainfall was concentrated in the northern and central of the West Bank, while it clearly appears that the southern areas of the West Bank were less fortunate due to the effect of the depressions that were concentrated in the northern and northwestern parts of the West Bank. Accordingly, data showed that the highest amount of rainfall in the West Bank during the current rain season 2023/2024 was 829 mm in Tulkarm station (which represented 138% of the mean average of the station), whereas the lowest amount of rainfall during the current rain season was 60 mm in Jericho station (which represented 36% of the mean average of the station).

Cumulative Amounts of Rainfall Recorded at West Bank Stations from the Beginning of the Current Rain Season 2023/2024 till 11/03/2024 Compared with General Average by Station Location

Station Location	Quantity of Rainfall till 11/03/2024 (mm)	Mean Average (mm	% of Mean Average
Tulkarm	828.7	602.4	137.6
Qalqiliya	814.0	624.9	130.3
Nablus	754.5	660.1	114.3
Salfit	719.5	698.1	103.1
Ramallah and Al-Bireh	605.5	615.2	98.4
Jenin	561.3	468.2	119.8
Tubas	495.2	431.2	114.8
Hebron	424.5	595.9	71.2
Jerusalem	381.7	537.0	71.1
Bethlehem	378.0	518.4	72.9
Jericho	60.2	166.0	36.3

The highest annual humidity was in Hebron and the lowest was in Jericho

Data showed that the annual relative humidity in 2023 ranged between 71% in Hebron Station and 44% in Jericho Station. Noting that high humidity levels are not always an indicator of rainfall and may be in the form of other water phenomena, such as fog and

clouds touching the surface of the earth or the formation of dew.

Mean Relative Humidity (%) in 2023 and Mean Average in Some West Bank Stations

Station	Relative Humidity (%), 2023	Mean Average %	% of Mean Average
Hebron	71	62	114.5
Nablus	68	61	111.5
Ramallah and Al-Bireh	64	75	85.3
Jenin	64	69	92.8
Jericho	44	52	84.6

Total evaporation was higher than the mean average in 2023

Data showed that the total evaporation in the West Bank station during 2023 increased in the majority of available stations, where it reached its highest (2,701 mm) in Jericho Station and its lowest (1,716 mm) in Nablus Station; it is known that the amounts of evaporation are related to high temperatures as well as wind activity in the region.

Total Evaporation in 2023 and Mean Average of Evaporation in Some West Bank Stations

Station	Total Evaporation (mm), 2023	Mean Average (mm)	% of Mean Average
Jericho	2,701	2,101	128.5
Jenin	1,971	..	..
Ramallah and Al-Bireh	1,789	1,889	94.7
Nablus	1,716	1,682	102.0

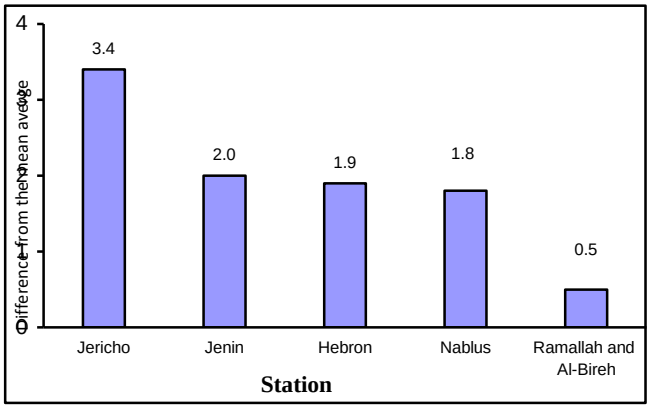
..: Data not Available

Air Temperatures in 2023 are higher than the mean average

Temperature data were analyzed by selecting stations that represent the climate system in the West Bank. The analysis sample was taken for a station representing the mountainous and semi-coastal areas and Al-Aghwar region. PMD data showed that air temperatures in 2023 were higher than the mean average by (3.4°C) in Jericho stations.

This significant rise in air temperatures is due to the West Bank being affected by heat waves during the months of July, August and October, where the effect of which was greater on the mountainous, coastal and semi-coastal areas; hence, it made the temperature rise in these areas reaching higher percentages from their mean average. Thus, those heat waves were accompanied by a marked increase in humidity levels in the same areas.

Variations in Air Temperatures (°C) in 2023 from the Mean Average in some West Bank Stations



Maximum temperatures also differed during 2023, as they were higher than the yearly average at around 0.9 °C in Ramallah and Al-Bireh station and 2.7 °C in Jericho station.

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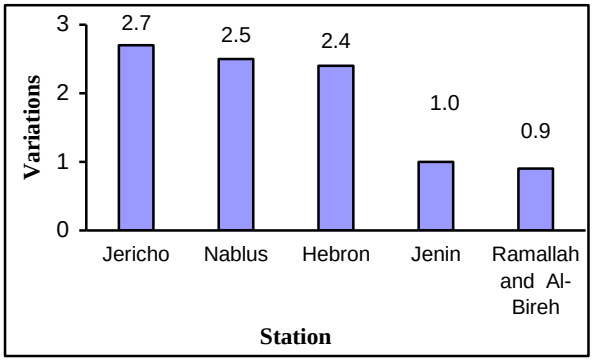
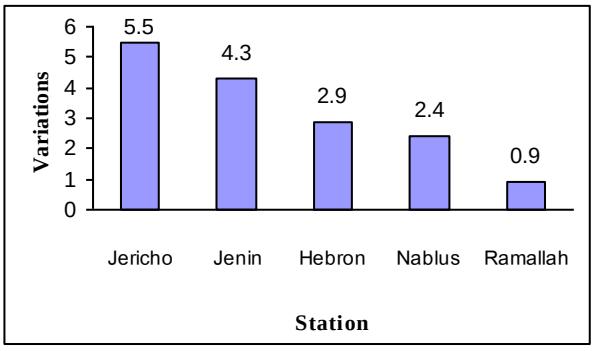
Variations in maximum air temperature during 2023 (°C) from yearly average in some West Bank stations



Also, the minimum temperatures differed during 2023, as they were higher than the yearly average at around 0.9 °C in Ramallah and Al-Bireh station and 5.5 °C in Jericho station.

Variations in minimum air temperature (°C) compared to yearly average in some West Bank stations, 2023



The highest average hours of sunlight during 2023 was in Jericho Station

During 2023, the highest average hours of sunlight was 8.6 hours per day in Jericho station, while the minimum average hours of sunlight was 8.3 hours per day, registered in Ramallah and Al-Bireh station.

For more information, please contact:

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