

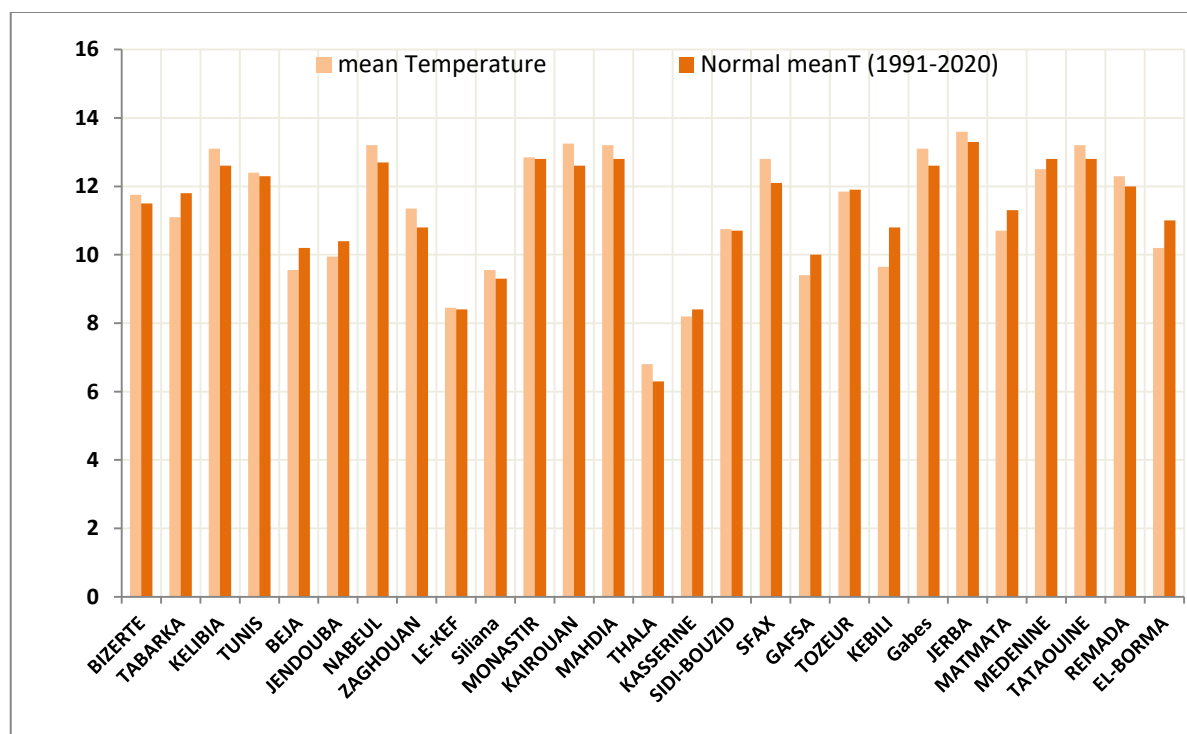
Climatological Report for the month of January 2023 in Tunisia

During the month of January 2023, most parts of the Tunisia experienced a rise in temperature until the 17th of the month and this is an extension of the weather conditions that prevailed at the end of 2022. From January 18, the temperature began to decrease significantly and winter weather continued until the end of the month with snowfall in the western highlands. The overall average (27 main stations) of the monthly average temperatures was 11.3°C and was at the level of the reference average (11.3°C).

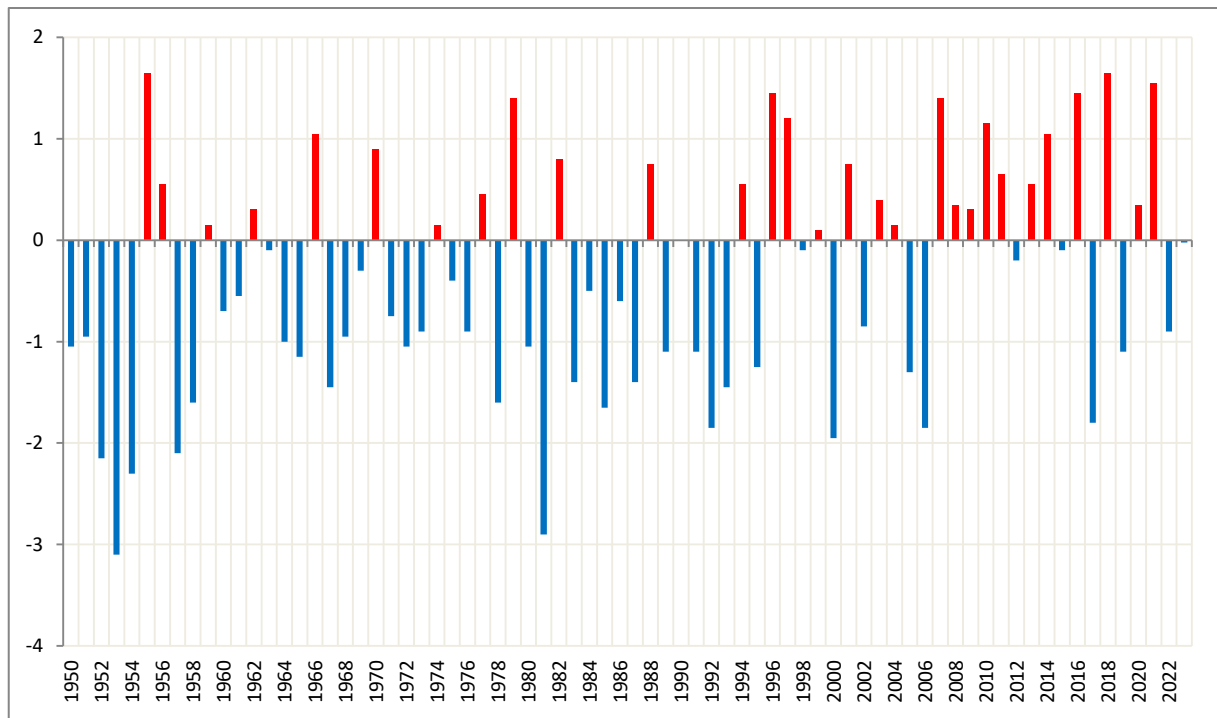
Regarding rainfall, it was very heterogeneous, lower than normal in most regions and close to the reference total in Bizerte and higher in Tabarka and Kelibia. The total accumulation (27 main stations) for the month was 580.6 mm, while the normal for the same stations was 1122.8 mm. Thus the overall deficit reached 48%.

- Mean temperature :

Average mean temperatures varied between 6.8°C in Thala and 13.5°C in Djerba, and they were very close to the reference averages (1991-2020) in most regions, with the exception of Kébili, where the average was lower than the reference average, with a difference of -1.2°C. As for the general average temperature (27 main stations), it reached 11.3°C and was at the level of the reference average (11.3°C). The month of January 2023 is considered normal.

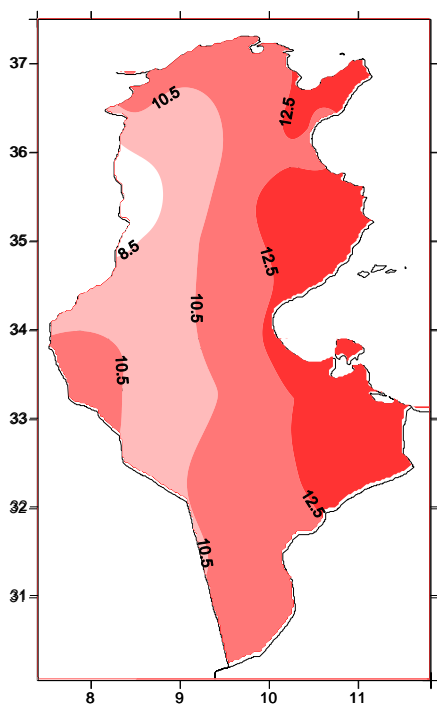


Comparison of average and normal temperatures for the month of January

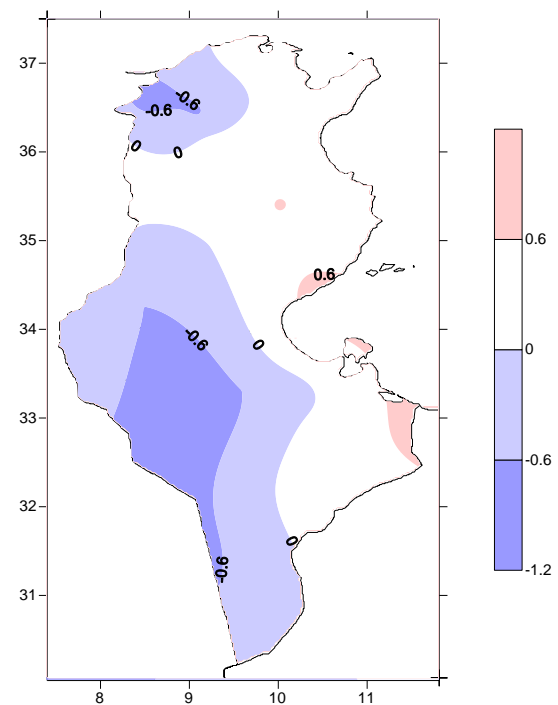


Deviation from normal (1991-2020) of average temperatures

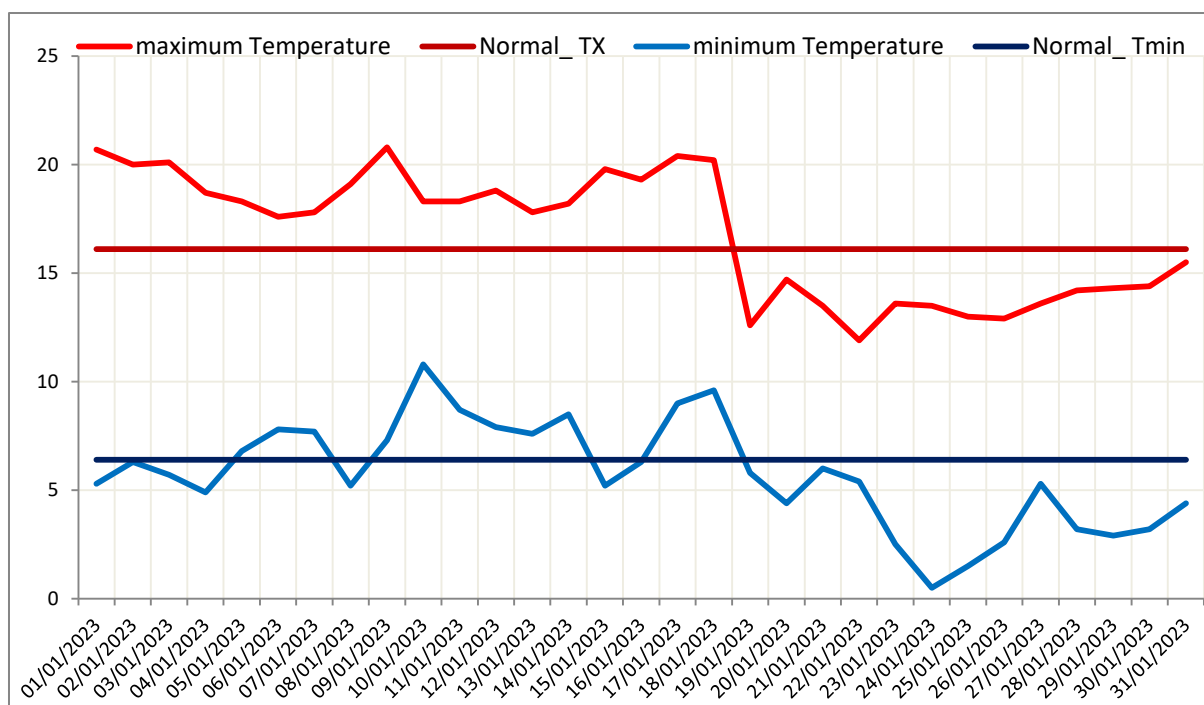
since 1950: Month of January



Mean temperature (Tmean) °C



Deviation from normal Tmean (°C)



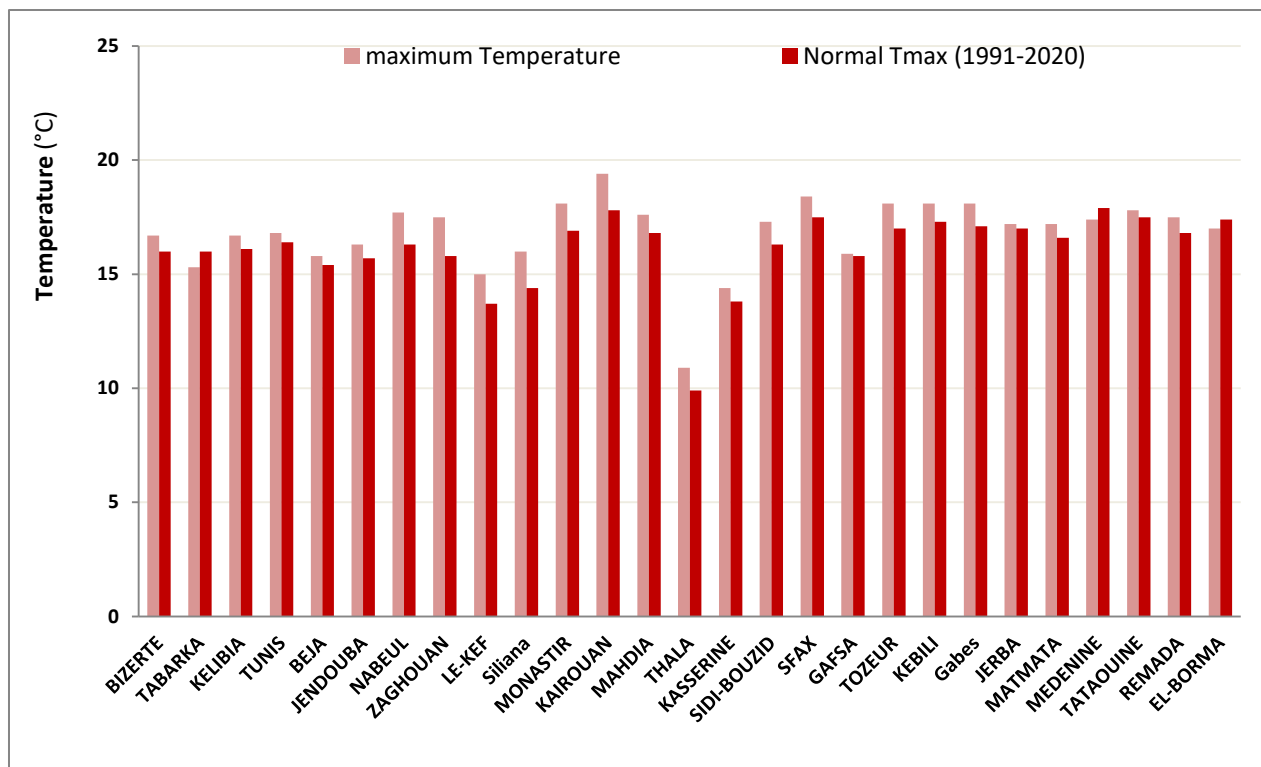
Evolution of daily temperatures in Tunisia compared to the normal for the month of January

The month of January 2023 began with remarkably high maximum temperatures. As of the eighteenth of the month, temperatures decreased and most regions witnessed a cold wave, as temperatures were much lower than the reference rates for the western regions, and snowfall was recorded in the highlands.

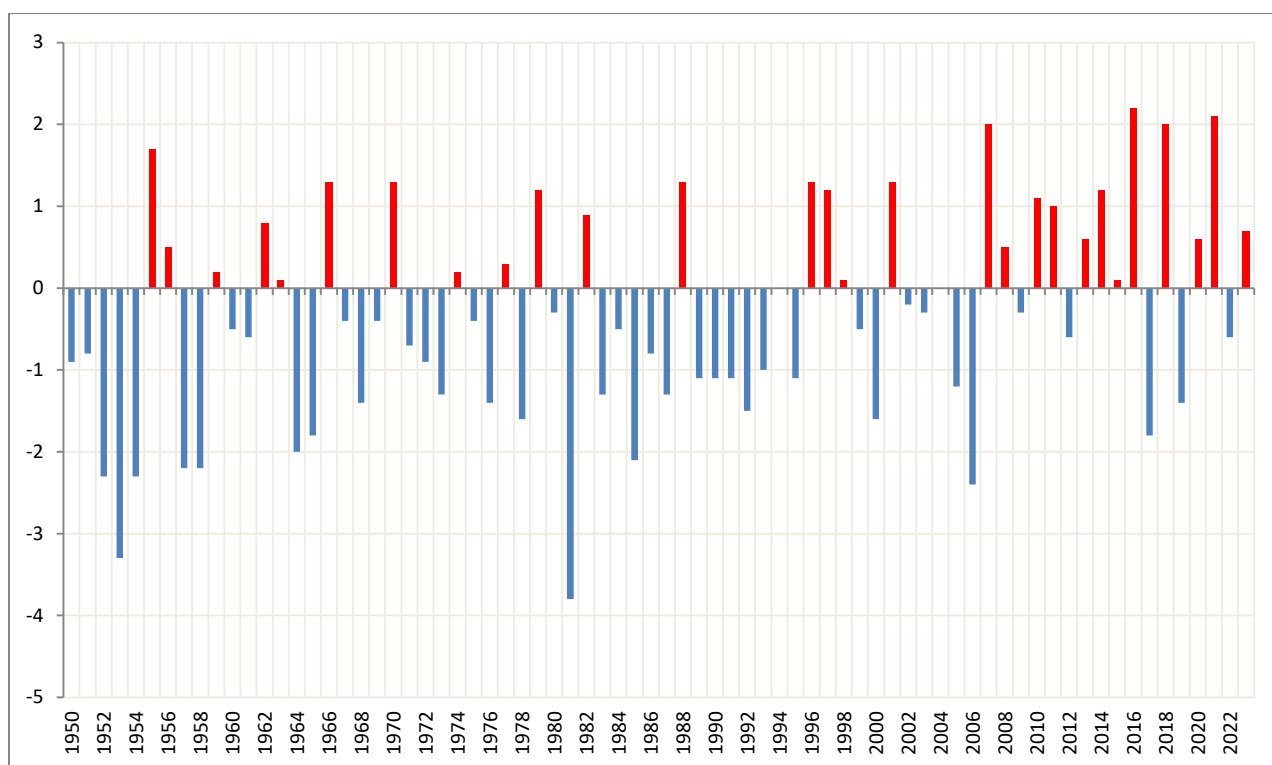
- Maximum temperature:

As for the maximum temperature rates, they ranged from 11.1°C in Thala to 19.5°C in Kairouan, and were above the reference rates in most regions, where the differences ranged from +0.3°C in Djerba to +1.7°C in Zaghouan, with the exception of Tabarka, Medenine and El-Borma, where the rates were slightly lower than the reference rates, and the differences ranged between -0.4°C in El-Borma and -0.7°C in Tabarka.. And the absolute maximum temperature reached 25.4 °C in Kairouan on January 09, 2023.

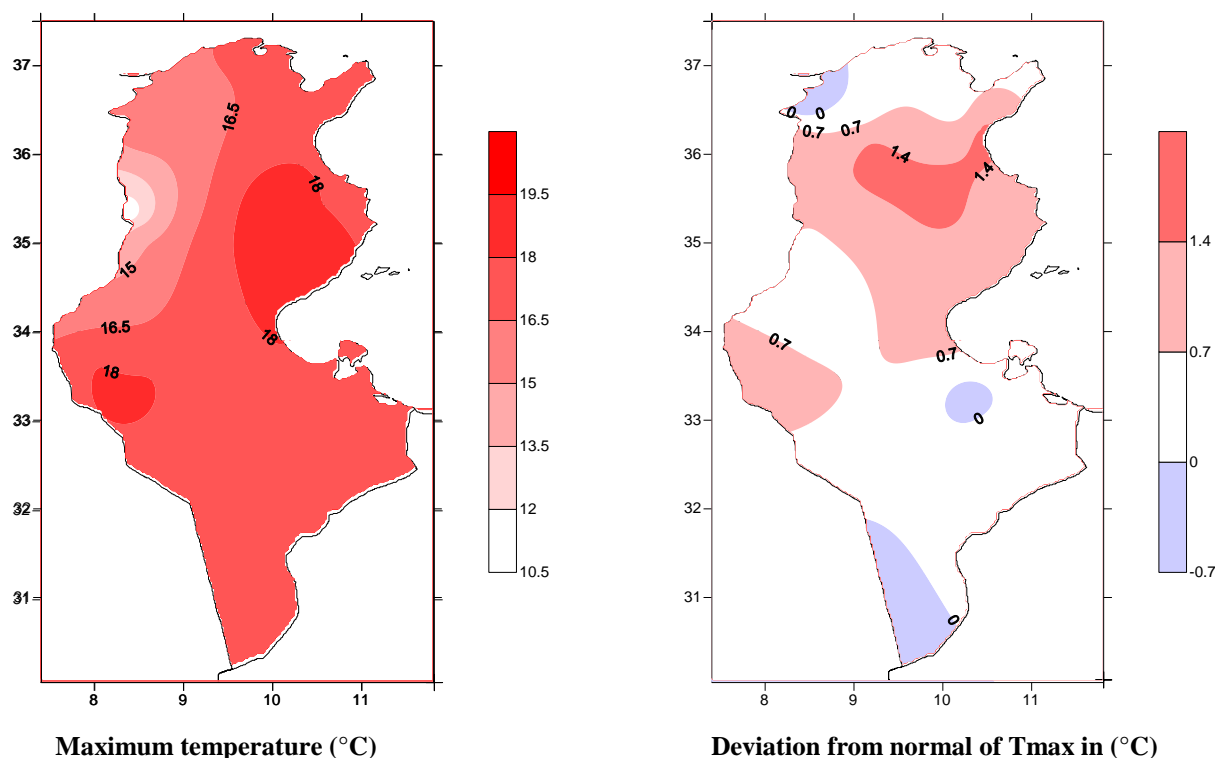
As for the general average (27 main stations) for the maximum temperature, it reached 16.8 °C and exceeded the reference average for the same stations (16.1 °C) by a difference of +0.7 °C.



Comparison of maximum and normal temperatures for the month of January



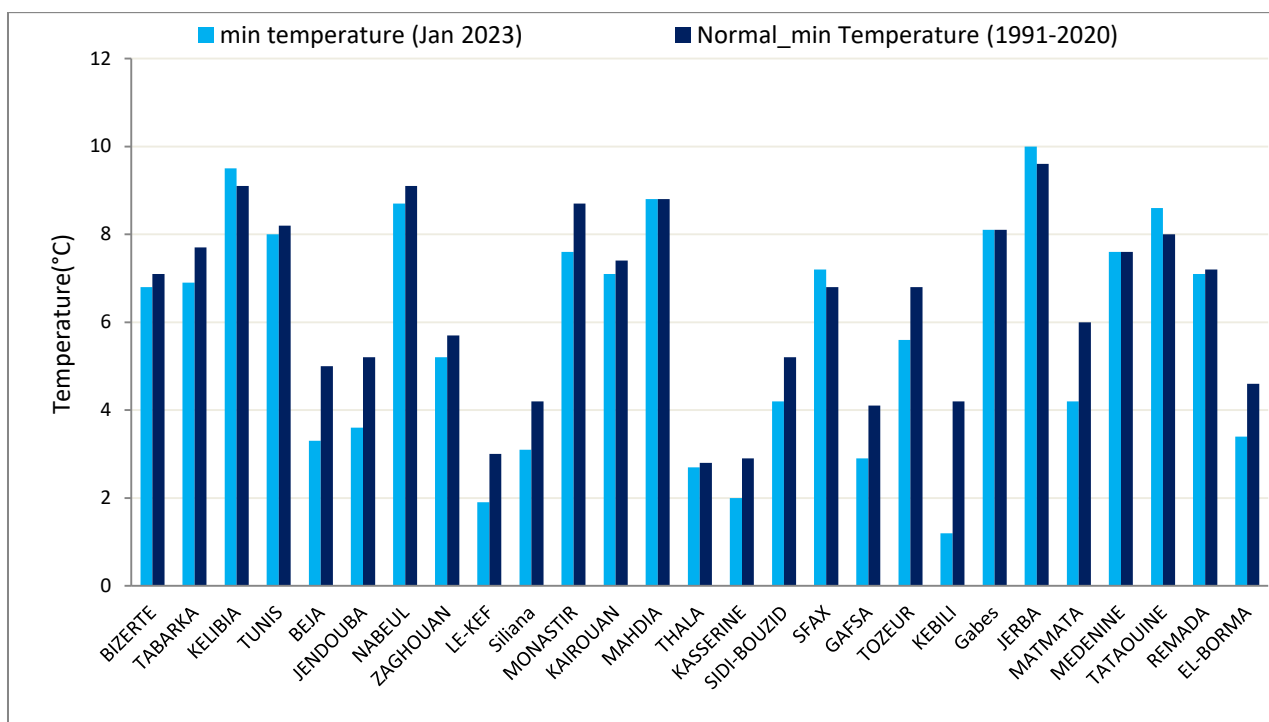
Deviation from normal (1991-2020) of maximum temperatures
since 1950: month of January



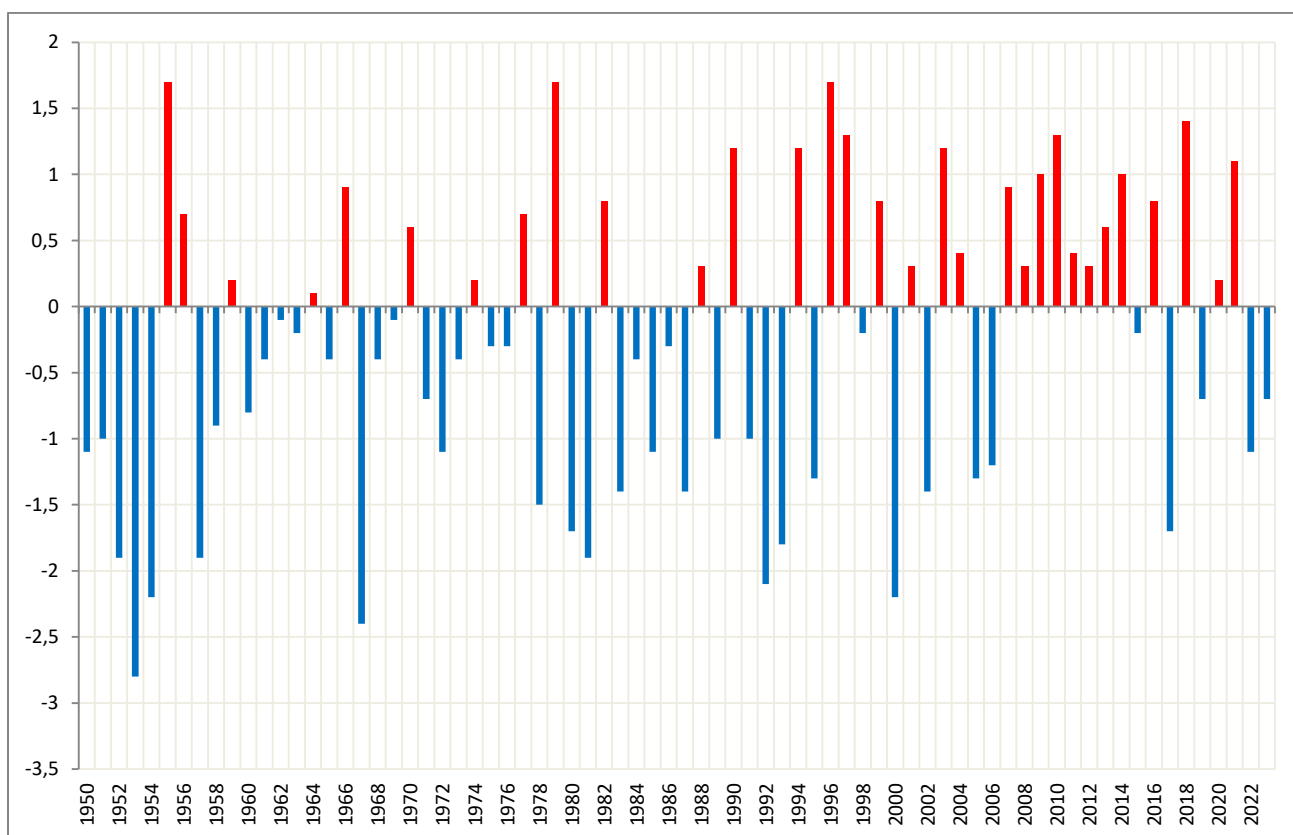
- Minimum temperature:

The minimum temperatures were falling, especially during the last ten days of January, following the infiltration of cold polar air masses towards our regions, negative temperatures were recorded on certain days, in particular in the western regions of the country, where the hoarfrost phenomenon has been observed. The absolute minimum temperature reached -6.2°C in Kasserine on January 24, 2023. Average minimum temperatures during this month ranged from 1.5°C in Kébili to 10.3°C in Djerba, and they were lower than the reference averages in most regions, the deviations ranging from -3.0°C in Kébili to -0.1°C in Thala and Remada, with the exception of Sfax, Djerba and Tataouine where the averages were slightly higher than the reference averages, with small differences between $+0.4^{\circ}\text{C}$ in Sfax and Djerba and $+0.6^{\circ}\text{C}$ in Tataouine.

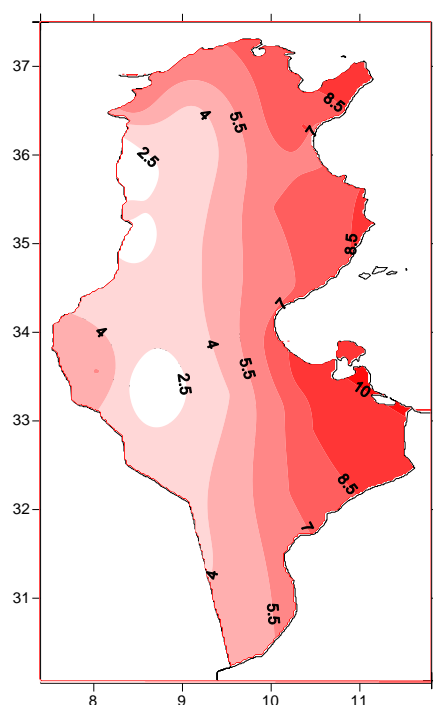
As for the general average of minimum temperatures, it was 5.7°C and it was lower than the reference average (4.6°C) with a difference of -0.7°C .



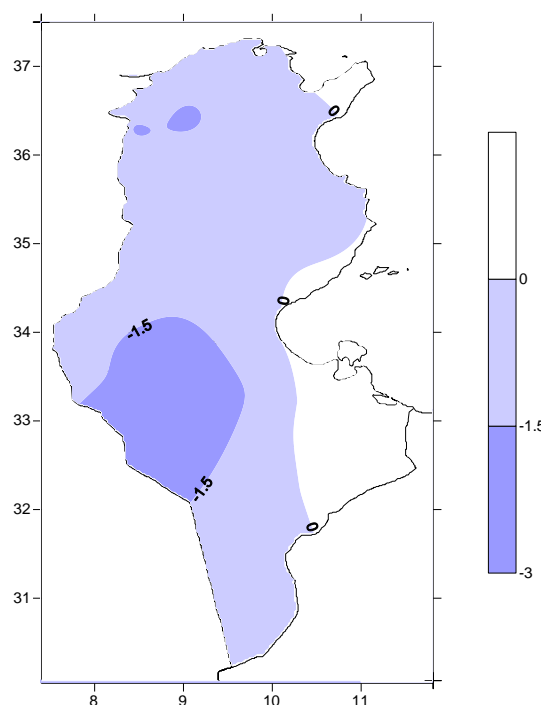
Comparison of minimum temperatures (January 2023) to normals for the month



Deviation from normal (1991-2020) of minimum temperatures since 1950: Month of January



Minimum temperature_Tmin (°C)



Deviation from normal of Tmin in (°C)

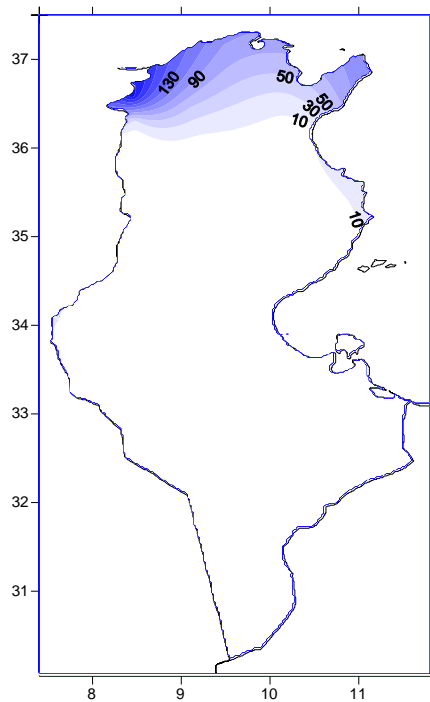
- Rainfall:

Regarding rainfall, the month of January 2023 saw an uneven decrease in rainfall amounts in most regions, and the percentage of the deficit in the northern regions varied from 1% in Bizerte to 99% in Siliana, in with the exception of Tabarka and Kelibia where the total rainfall was higher than the reference total, and the excess rate was respectively 58% in Tabarka and 21% in Kelibia.

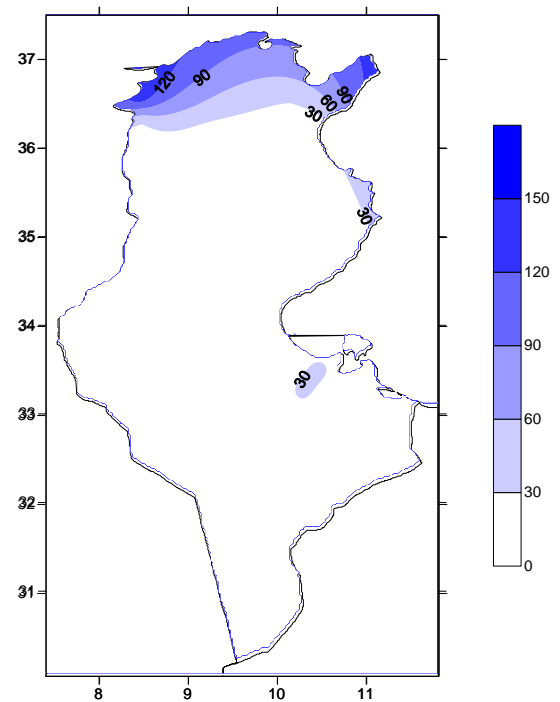
The central regions also experienced a decrease in rainfall amounts, and the deficit varied from 61% in Mahdia to 91% in Kairouan and it reached 100% in Monastir and Kasserine.

In the south of the country, the deficit was more significant since the rate varied from 74% in Médenine to 99% in Tozeur and Tataouine. Note that it did not rain throughout the month in Gafsa.

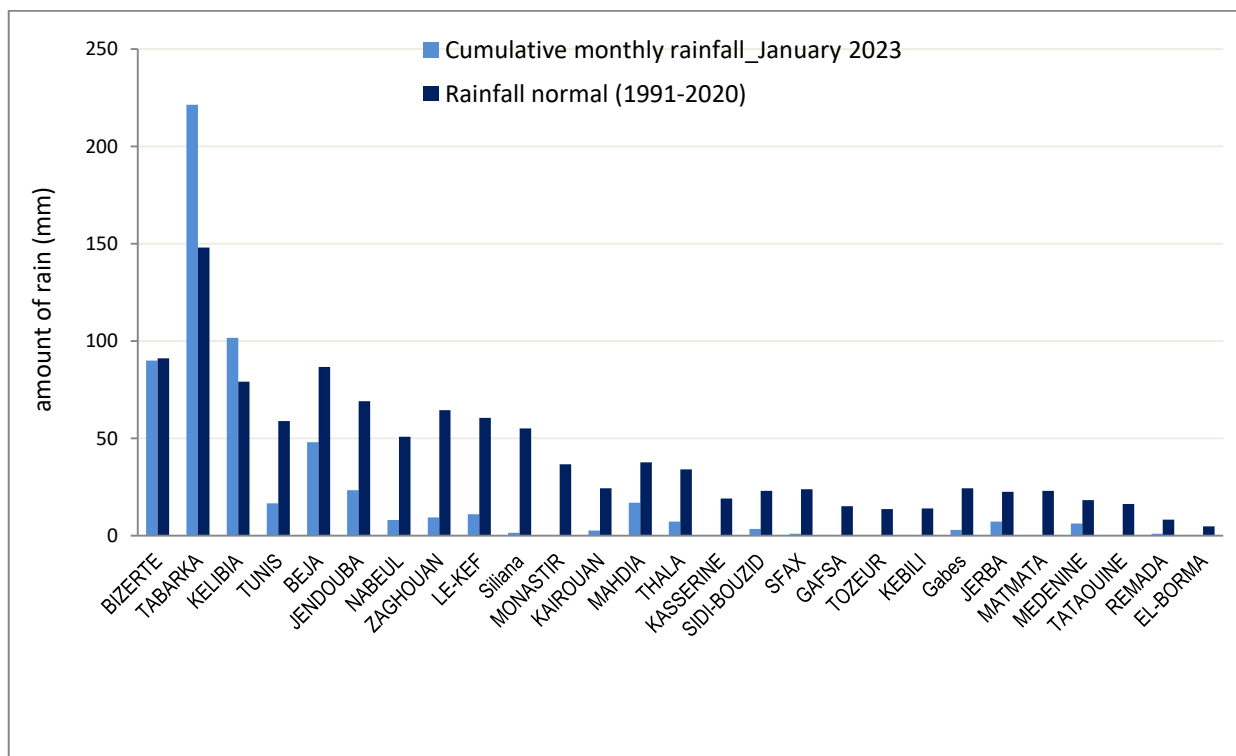
In total (27 main stations), the cumulative rainfall for the month amounted to 580.6 mm, while the reference total for the same stations was 1122.8 mm, which represents 52% of the normal for the months and therefore the total deficit rate reached 48%.



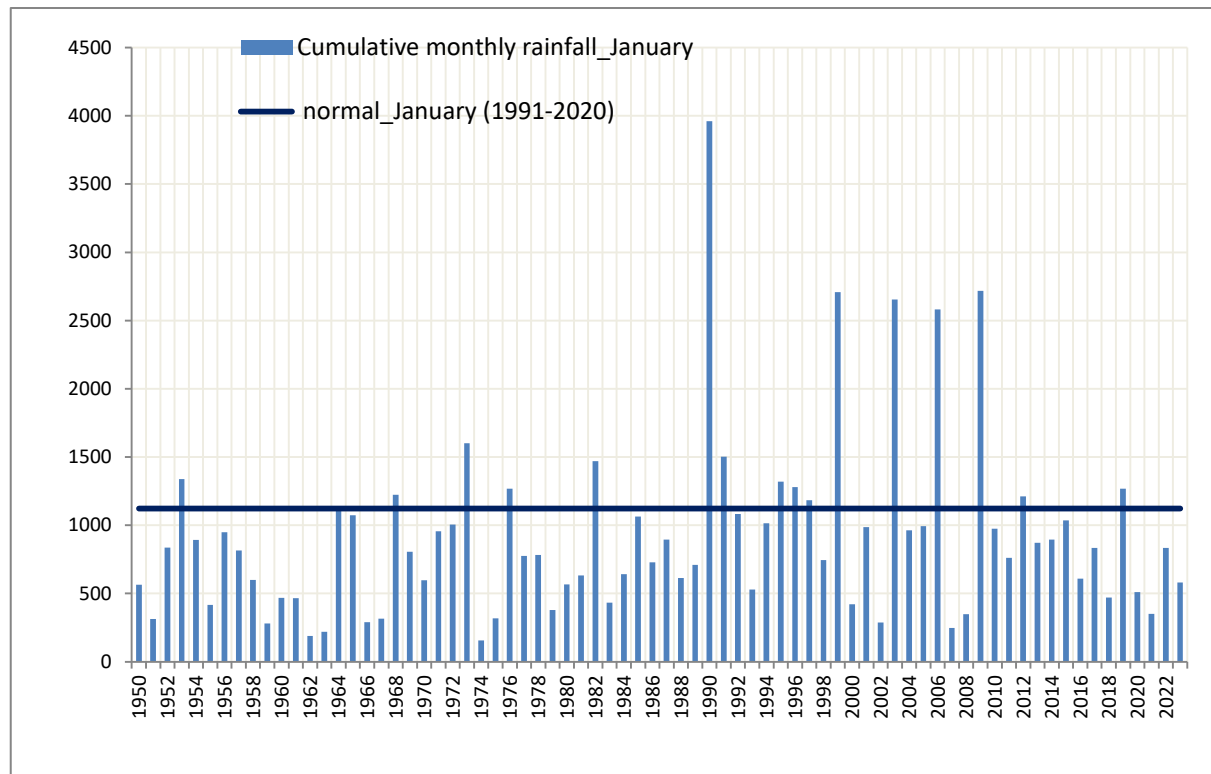
Total rainfall amounts _ January 2023 (mm)



**The ratio of the total rainfall for the month of
January 2023 to the reference**



Comparison of monthly accumulations (January 2023) of rain compared to normals for the month



Monthly rainfall total since 1950 in Tunisia: Month of January

- The winds :

The winds were generally weak to moderate, and their speed increased during the days of January 09 and 10, 2023 over the northern and central regions and locally the south and the maximum varied between 65 km / h in Mahdia and 79 km /h in Kelibia.

During the period from January 17 to 20, the winds were strong in most regions and the maximum speed varied from 61 km/h in Beja and El Borma to 94 km/h in Beja and Tataouine, and it reached a maximum of 108 km/h in Bizerte on the 19th of the month. It should be noted that these strong winds caused the formation of local sand phenomena in the southern regions.

Winds were also strong on January 27 over the Nabeul and Kasserine regions with maximum speeds between 60 km/h and 80 km/h, reaching a maximum of 108 km/h in Kasserine.

(Figure n° 01 et Figure n° 02) :



Figure n° 01

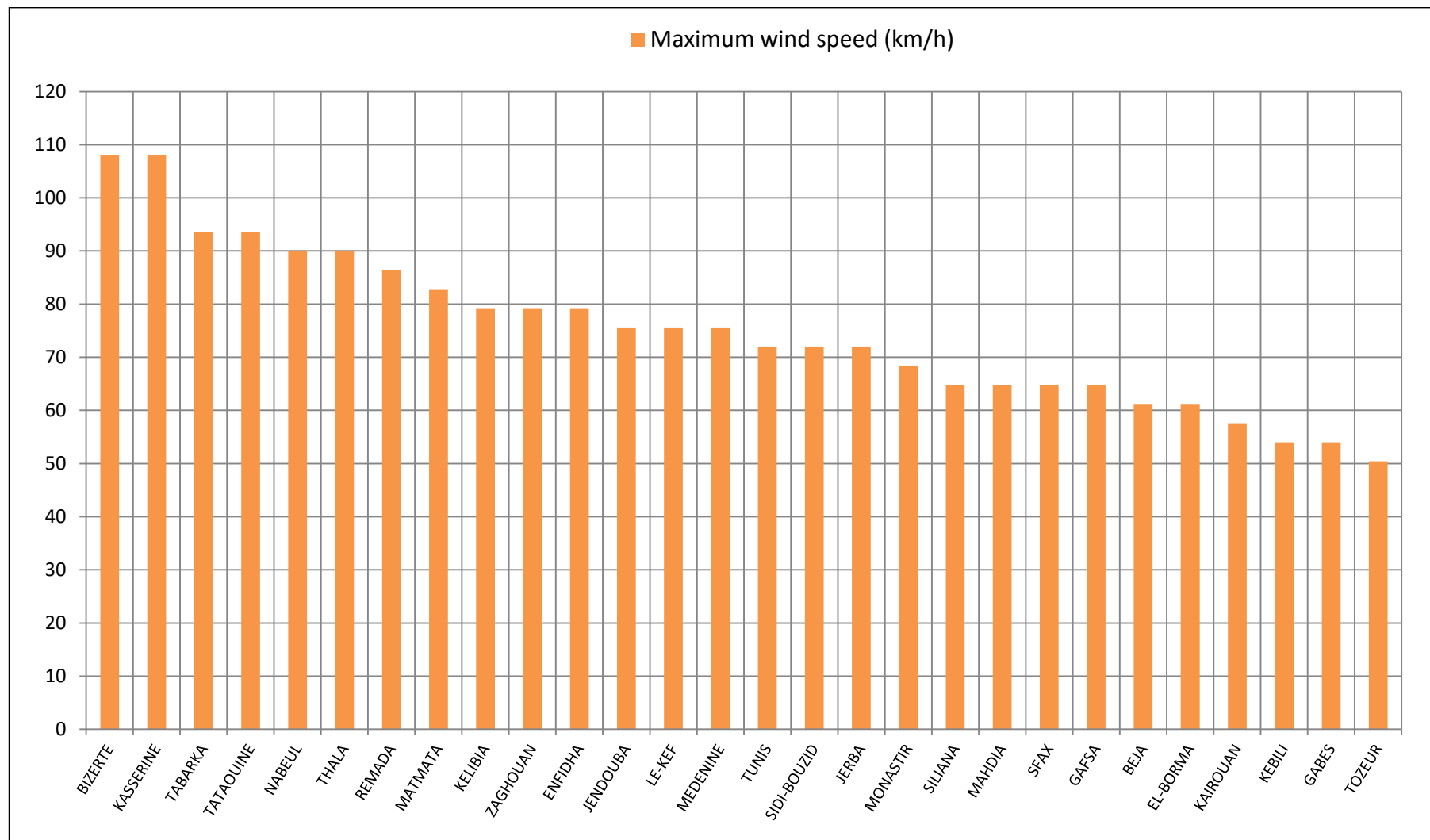




Figure n° 02

