PROJECT: EXPLORING WEATHER TRENDS

The local city chosen is Bangalore. I have used Microsoft Excel to complete the project.

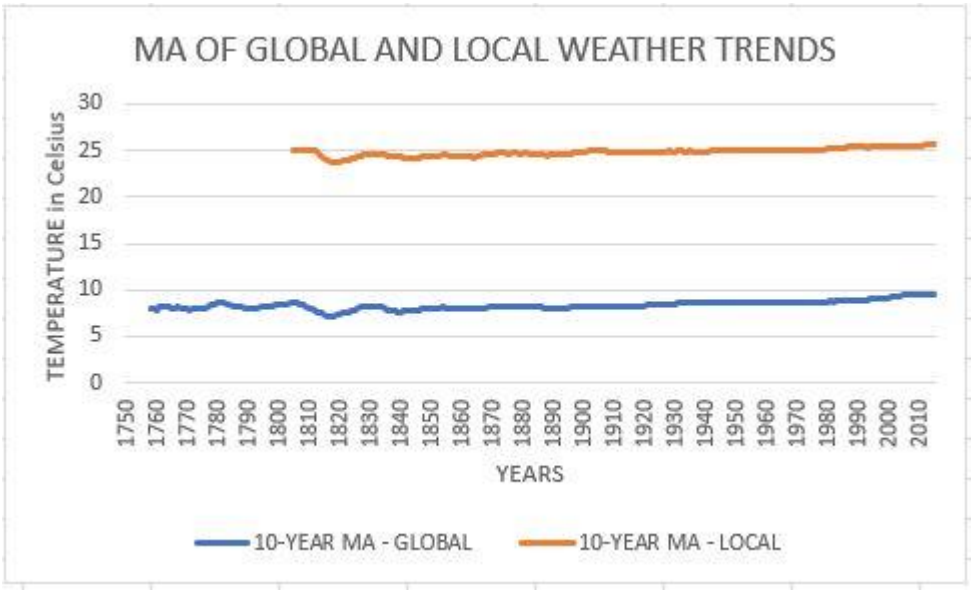
The Line graph is plotted between Temperature and Years.

The moving averages were taken for both Local and Global data to smoothen out the lines and make the trends more observable.

A 10-Year moving Average has been taken for both the Local and the Global data.

That is, for every element the average of the 10 elements (including the current element) before has been taken. This has been done for all the elements.

LINE CHART FOR LOCAL AND GLOBAL TRENDS:



OBSERVATIONS:

1) In both the cases, there has been an increase in the temperature over the years by approximately 1.3 degrees Celsius.

2) In both the cases, the temperature has decreased by a small value around the 1820s.

3) For the Global temperature range Minimum is 7.15 Celsius and Maximum is 9.60 Celsius.

4) For the Local temperature range Minimum is 23.76 Celsius and Maximum is 25.71 Celsius.

5) When we observe the minimum and Maximum values of Global and Local Trends the difference between them is greater in the Global trends.

6) The Correlation Coefficient of the two trends is 0.9. That is, it has a positive correlation.

SQL QUERIES USED TO RETRIEVE DATA FROM THE DATABASE:

Firstly, the list of Cities has to be obtained for me to choose the nearest City to my locality.

```
SELECT *
FROM city_list;
```

Secondly, the data for the nearest City should be obtained. For this, a WHERE clause is used to narrow down the search for the required city. In my case, Bangalore.

```
SELECT *
FROM city_data
WHERE city = 'Bangalore';
```

Finally, to compare the nearest City to the Global data, the data should be obtained for the Global weather trends as well:

```
SELECT *
FROM global_data;
```