

Explore Weather Trends Project

By Afnan Alabdan

Executive Summary:

In this project, I will analyze local and global temperature data and compare the temperature trends where I live to overall global temperature trends.

The Project goal:

The goal is to create a visualization and prepare a write up describing the similarities and differences between global temperature trends and temperature trends in Riyadh city where I live.

An Outline of the project steps that a I have been working on:

- What tools did I use for each step?

I have used SQL to extract the data and download as csv, then worked with Excel to calculate the moving average and visualizing the data.

- How did I calculate the moving average?

I calculate the moving average in excel by using average function on each 5 years, so that the chart be smoother.

- What were the key considerations when deciding how to visualize the trends?

Is to have a consistent data in both global/local temperature.
And to calculate the moving average to prevent the noise in the chart

The SQL query used to extract the city and global data by using join:

Input

HISTORY ▾

MENU ▾

SCHEMA ↻

city_data ▾

city_list ▾

global_data ▾

1 SELECT city_data.year,city_data.avg_temp AS
city_temp, global_data.avg_temp AS global_temp
2 FROM city_data
3 JOIN global_data
4 ON city_data.year = global_data.year
5 AND NOT city_data.avg_temp IS NULL
6 AND city_data.city = 'Riyadh';
7

Success!

EVALUATE

Output 169 results

Download CSV

year	city_temp	global_temp
1843	24.74	8.17
1844	15.45	7.65
1845	20.82	7.85
1848	24.56	7.98
1849	24.80	7.98
1850	24.34	7.90
1851	25.03	8.18
1852	24.85	8.10

Line chart:

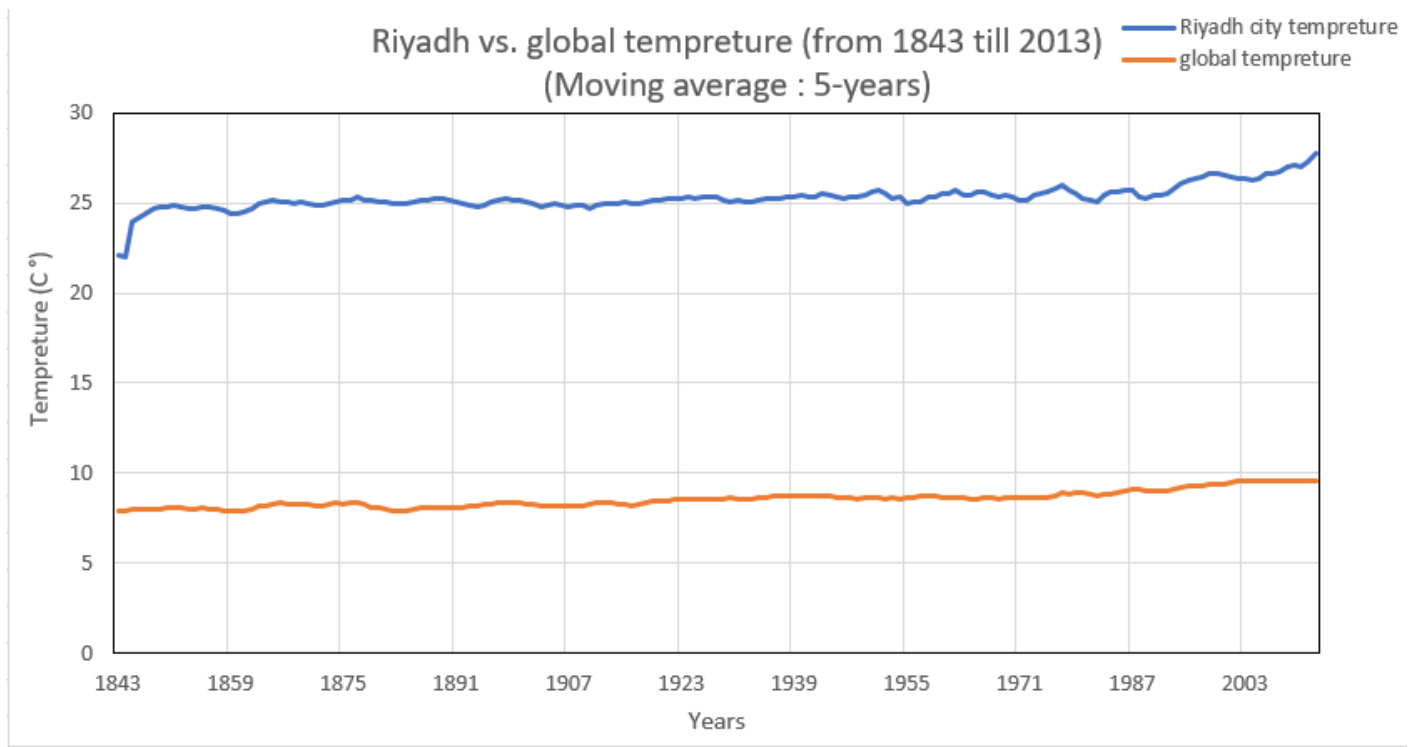


Figure 1: Riyadh Vs. Global temperature Line Chart

Observations:

I have notice that my city (Riyadh) is much hotter than the global temperature. And the major difference between them was that Riyadh increased a little bit more than the global.

I also notice that the changes over these years in the temperature is slightly deferent with no big changes. But compared to the global temperature we can say from the above chart that the last 20 years the temperature in Riyadh has increased a little bit near to the 30 ° degree.

The overall trend looks like it is being hotter but still there is no big changes in the weather and the lines shows that the weather minor changes is going to continue to increase over the years based on the line chart.