

## Exploring Weather Trends

In this project, local and global temperature data has been analyzed and the temperature trends in Abu Dhabi, United Arab Emirates has been compared to overall global temperature trends. Data extraction has been done by writing SQL queries then exported to Excel has been used to calculate moving average over decades of years in order to get the best visualized line chart comparing data of Abu Dhabi vs. Global.

- 1- To Select the city, I do below Query: [ See Figure 1].

```
1  SELECT *
2    FROM CITY_LIST
3    WHERE COUNTRY LIKE 'United Arab Emirates'
```

Success!

EVALUATE

[ Figure 1]

- 2- To know more data about Abu Dhabi Like Year and Avg temp: [ See Figure 2].

```
1  SELECT *
2    FROM CITY_DATA WHERE CITY LIKE 'Abu Dhabi' AND
   COUNTRY LIKE 'United Arab Emirates'
```

Success!

EVALUATE

[ Figure 2].

3- To know more data about global: [ See Figure 3].

1

SELECT \* FROM GLOBAL\_DATA

Success!

EVALUATE

[ Figure 3].

I calculated the moving average of 10 years by using command =AVERAGE(cell2:cell11) and then dragging down till the last value as shown in Below Figures.

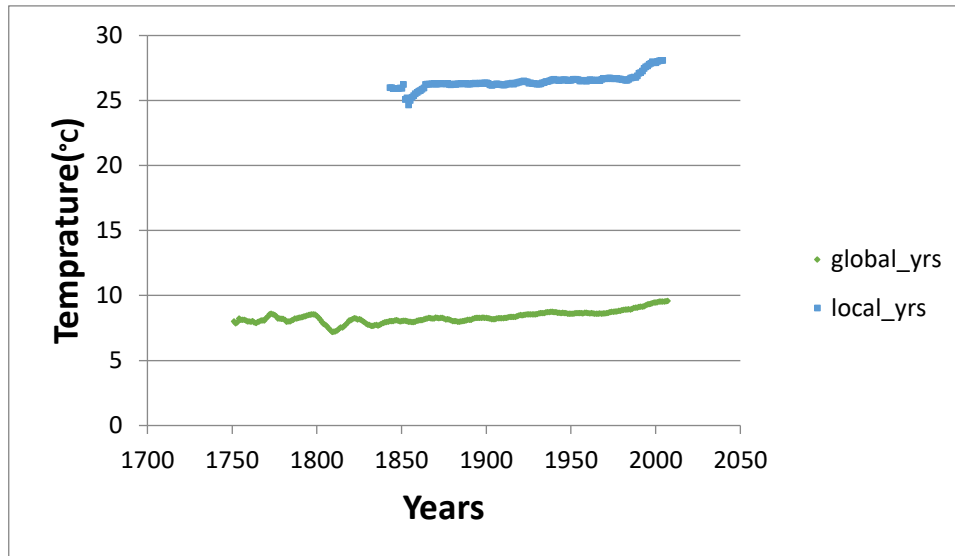
<i>fx</i>	=AVERAGE(E2:E11)		
	D	E	F
	LOCAL_YRS	AVG_TEMP	10_YR_MA
	1843	26.04	
	1844	26.26	
	1845		
	1846		
	1847		
	1848	25.83	
	1849	26.01	
	1850	25.69	
	1851	26.25	
	1852		26.01333333

LOCAL MOVING AVERAGE

<i>fx</i>	=AVERAGE(E2:E11)		
	D	E	F
	GLOBAL_YRS	AVG_TEMP	10_YR_MA
	1750	8.72	
	1751	7.98	
	1752	5.78	
	1753	8.39	
	1754	8.47	
	1755	8.36	
	1756	8.85	
	1757	9.02	
	1758	6.74	8.03

GLOBAL MOVING AVERAGE

My goal was to observe an increase decrease in moving average temperature. I observed that there some similarities and differences between global and local “Abu Dhabi” moving average temperature data.



[ Figure 4].

4- My Observations from [ Figure 4]:

- Overall trend of Abu Dhabi's averages shows that Abu Dhabi is much hotter than world averages.
- Overall trends look like world is consistently getting hotter over the last years.
- Global moving average temperature is increasing at faster rate in comparison to local moving average temperature Abu Dhabi.
- The Global moving average experiences fewer fluctuation then the local moving average in Abu Dhabi.