COMPARISM OF GLOBAL vs LOCAL TEMPERATURE TREND

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To fully explore the Weather trends, comparison between the global and local temperature trend was done by extracting data from multiple cities chosen at random from the database provided.

Steps taken:

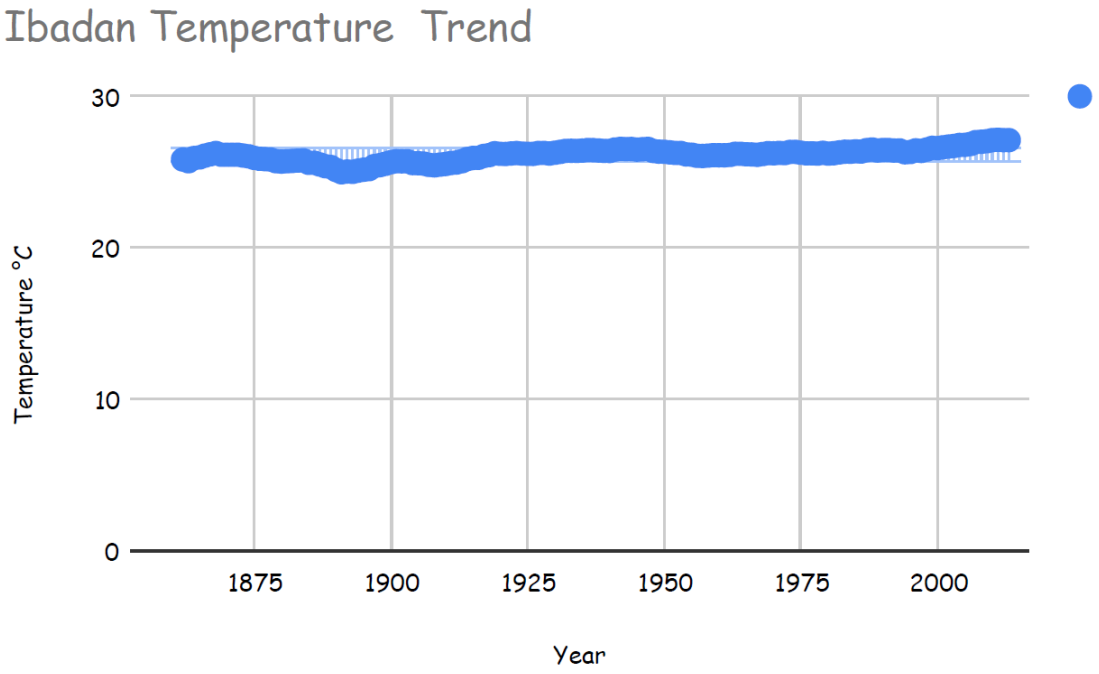
Extraction of Global data from database using SQL: SELECT * global_data

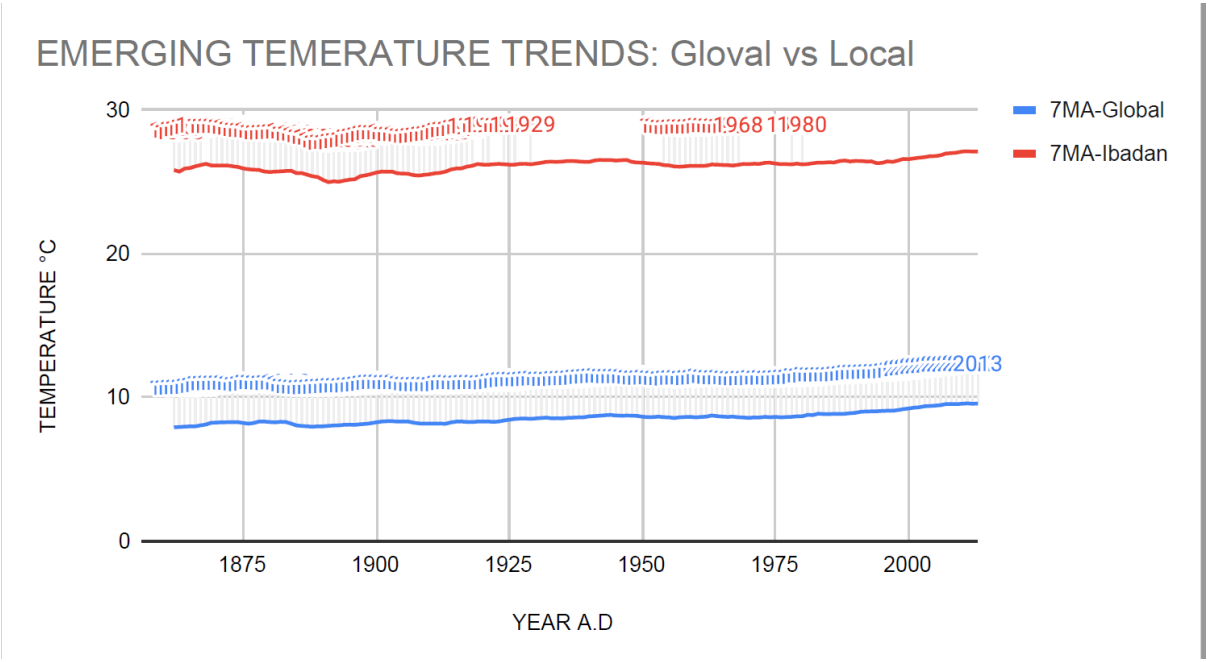
1. The output (266 result) was downloaded as a CSV file
2. Extraction of City data using SQL Query: SELECT * FROM city_data
   WHERE country = 'Nigeria'
   This was further narrowed down to particular cities:

```
SELECT year,avg_temp FROM  city_data
WHERE city = 'Ibadan'
SELECT year,avg_temp FROM city_data
WHERE city = 'Kaduna'
SELECT year,avg_temp FROM city_data
WHERE city = 'Kano'
SELECT year,avg_temp FROM city_data
WHERE city = 'Abuja'
```

   The data extracted were downloaded as CSV files and uploaded to Google Drive.
3. The files were opened with Google Sheet.

4. Messy data(blanks on the column) were detected using(=COUNTBLANKS) and (=AVERAGE(B2:B159)) was used to get the mean average of the data and this was imputed into the blanks.
5. The moving average was then calculated in 7MA column using 7 years average and dragging the cursor down to get the progressive 7 yearly moving average.
6. The year column and the 7MA column are highlighted. Click on insert chart to bring out the chart
7. Click on 3 dots on right hand corner of the chart, select 'Edit Chart', select customize. Go ahead and customize Chart Title, Vertical Axis, Horizontal Axis, place Legends on Right etc.
8. Download chart as PNG, PDF, svg.





From the chart, one can notice that

The chart portrays a steadily upward trend both on the global and local scene.

It shows that as the Centuries go by, the temperature got steadily warmer and warmer . the global temperature tend to have a more inclined trend than the local version. This is more apparent at the start of the 20th century where the local had a convulated dip, the global seems to have a straight line inclination from beginning to end. The two trend however became similar as the year goes by especially at the start of the 21st century till the turn of millennium.

From the observations above one can conclude that

1.The chart portrays a steadily upward trend both on the global and local scene. But the global seems cooler than the local as the local has maintained a steady higher temperature than the global but this might be attributed to the clime of the local which seems nearer to the equator hence the higher temperature

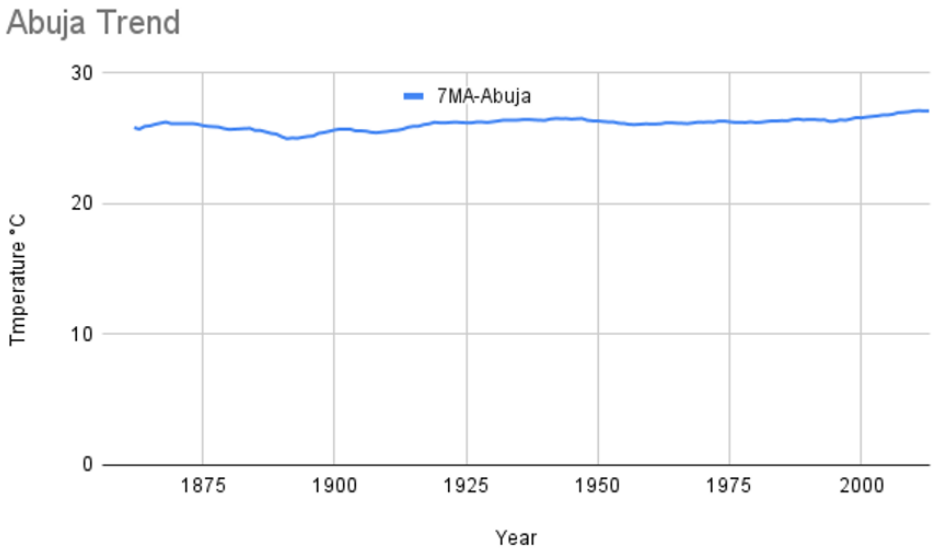
2.It shows that as the time goes by, the temperature consistently increase thereby getting warmer and warmer

3. the global temperature tend to have a trend than seems to be slightly horizontal or closer to a straight line chart than the local which has many gradients and inclines portraying the high and low period where the trend wasn't quite defined .

4. however, as the years goes by the local version which was like a wave became more defined and straighter thereby trending toward upward inclination. The local got hotter

4. This is upward incline trend has become consistent on the local and the global thereby showing that the world is getting hotter both at the local and the global stage.

5. this incremental trend has been consistent as the centuries goes by



Thank You.

Tunde Fadina