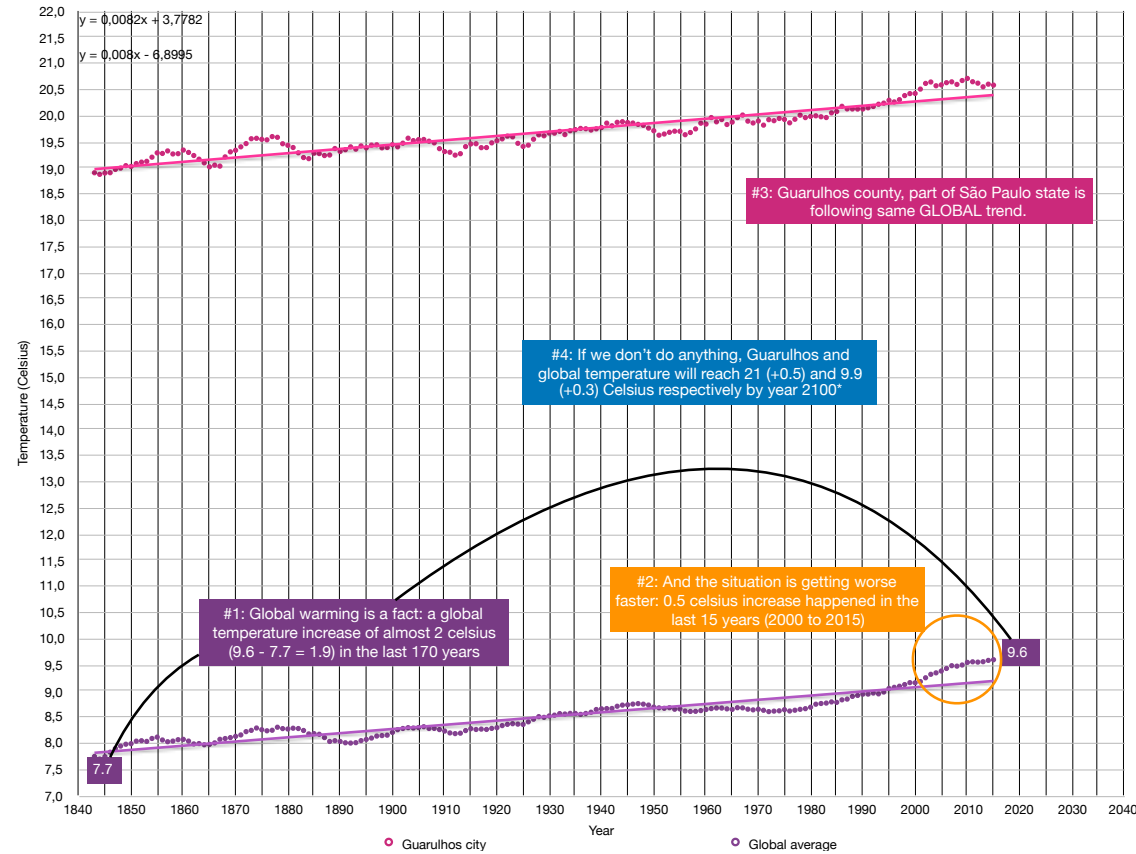


Temperatures over the years > Global warming is a reality.



OBSERVATIONS:

- We can observe (see #1 above) that the average GLOBAL temperature increase from 7.7c to 9.6c (1.9c difference) between years 1840-2015 (170 years), with a positive trend.
- The correlation GLOBAL:GUARULHOS is 0.9874 which indicates GUARULHOS is following the global trend
- We can observe (see #2 above) that in the last 15 years of data (200-2015), the increase of 0.5c, close to 25% of the increase in the last 170 years.
- The annual temperature rise in Guarulhos from 1840 to 2015 is 1.1c
- The GLOBAL annual temperature rise from 1840 to 2015 is 1.9c

Notes:

-3 SQL queries where used to extract the data:

To list all cities: >select * from city_list

To get data from my chosen city: >select * from city_data where city = 'Guarulhos'

To get global data: > select * from global_data

- There were some years without data for Guarulhos city (1844-1850, 2014-2015) and the average of previous 10 years were used.
- Years before 1843 not shown due to large difference, and moving avg could not be calculated.
- Moving average is used (previous 10 years)
- Apple Numbers software was used.
- Linear equations used to calculate 2100 temperature projections (GLOBAL: $y = 0.008x - 6.8995$; GUARULHOS: $y = 0.0082x + 3.7782$).