Data Analysis on climate change provided by World Bank Data

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Abstract:

On this report, I have taken the dataset from the World Bank Data. Based on the available dataset, I have chosen two different sets such as: “CO2 Emission (Metric_ton_per_capita)” and “Electric_Power_Consumption (kWh per capita)”. An analysis and observation done, based on the data available over the period from year 2000 to 2015 for both. A Major change observed for different countries over the years on their utilizing and releasing the Emissions and Power consumption. I have referred five different countries for my analysis (“Russia”, “United Kingdom”, “Japan”, “France”, “India”). Among all Russia and Japan tops in releasing More CO2 Emission which brings changes in climate by burning more and more fossil fuels from vehicles such as car, bus, trucks, and planes. Not only emissions, but also in using consuming Electric power too, which is in need for more coal, natural gas and energy. This report gives a visualization idea over a period of years, which country is releasing, using CO2 emissions and Electric Power in detail.

Git Hub Repository:

https://github.com/Raghavendhra-herts/statistics_and_trends_ADS

From the chosen dataset, an analysis for 5 different countries and the inter-relation of the listed factors on climate changing such as: “CO2 Emission”, “Electric Power Consumption” were observed over the period of years from 2000 – 2015.

LINE GRAPH

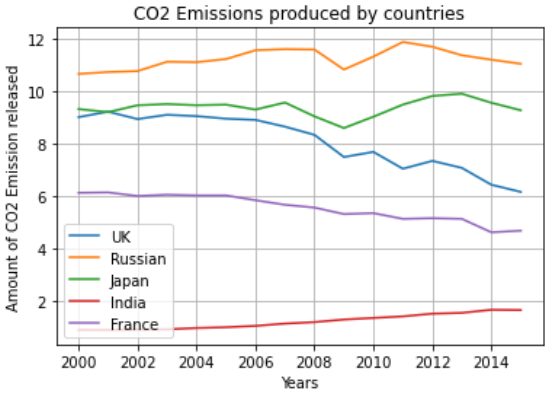

Figure (1)

The above figure represents a line graph. The graph displays the data from the year 2000-2015. I have chosen five different countries ("United Kingdom", "Russia", "Japan", "India", "France") from dataset.

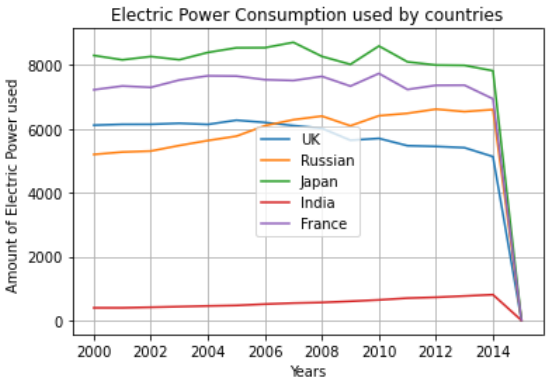

Figure (2)

From figure (1) countries like "Russia" and "Japan" are constantly high in producing CO2 Emission, which shows it is dependent more on vehicles, which also reflected in consuming more electricity power as it releases more emissions over the years as shown in Figure (2), which is more compared to "United Kingdom" & "India". As per the environmental reports it states that 0.85 amount of CO2 is produced per KWh. And both the countries "United Kingdom" and "France" as from the graph their emission rate is rapidly decreasing every year, but “France” seen to be utilizing more power consumption from 2008 to 2014.

But "India" as shown from Figure (1) & (2) it's constantly increasing their carbon emission as well as Electric Power Consumption every year which leads to major changes in climate.

BAR GRAPH

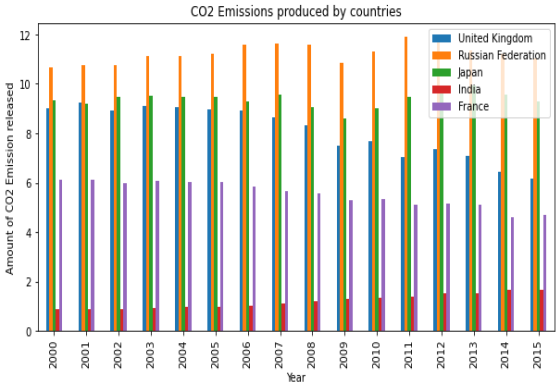

Figure (3)

From the above bar graph Figure (3) “Russia” tops in producing high CO2-Emission every year, followed by “Japan”, But from Figure (4), it shows “Japan” Uses more Electric power consumption between 2004 and 2010 than any other countries and “France” bags second after “Japan” in using Electric power every year, but less in releasing CO2 Emission than “Japan”.

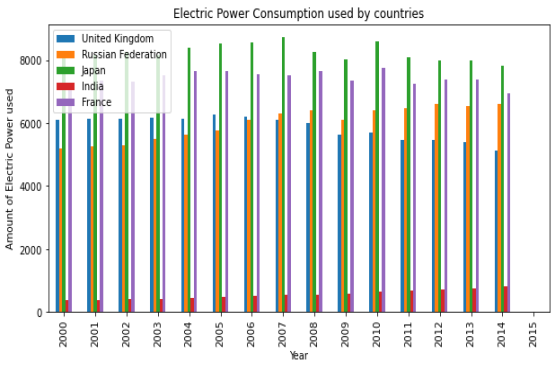

Figure (4)

Whereas “United Kingdom” and “India” focused on reducing their Co2 Emission, But as observed in the graph “United Kingdom” seen to gradually decreasing their Emission releases into air from year 2007 to 2015, also leads to less usage of Electric Power every year, which

maintain their Air-levels in better way. But “India” keeps slightly increase their part in using Emissions and More usage in Electric Power Consumption from year 2006 to 2014.

As per the above reports it is clearly shows that when there is more emissions produces such as through vehicles (ships, planes, cars, trucks, bikes), also there is more utilization of natural gas and natural energy, which also leads to changes in global warming, air pollution. Both counties “United Kingdom” and “France” plays their role in reducing CO2 Emissions.