

Title

Analysis of Climate change data based on World Bank data

Name

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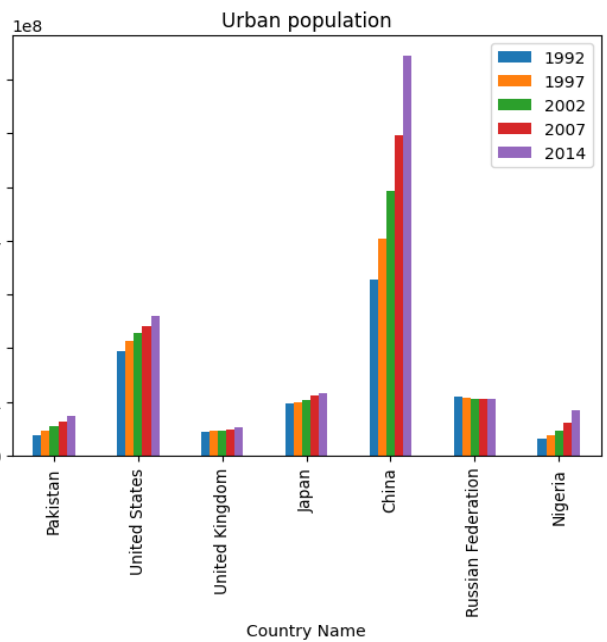
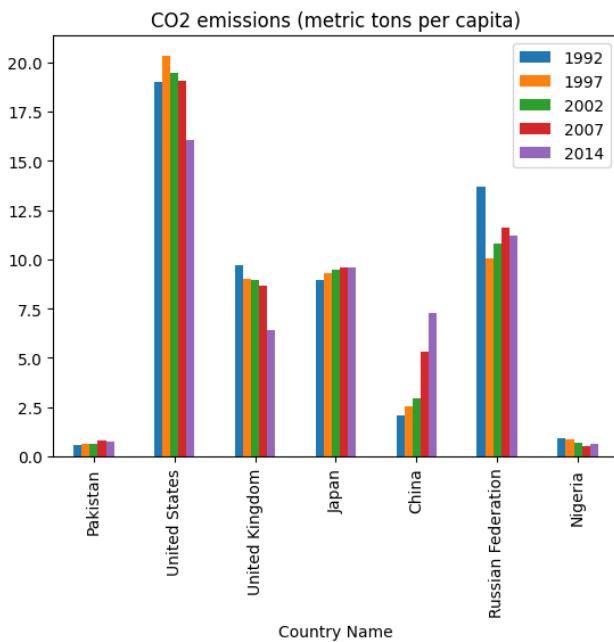
Abstract

For this analysis 7 countries were selected and the relation among following factors on climate change were seen: Electric power consumption, CO2 emission, Urban population, Forest area, Arable land, Electricity production from oil, gas and coal. In this analysis I mainly discuss how various factors of China are contributing towards climate change.

Github Repository

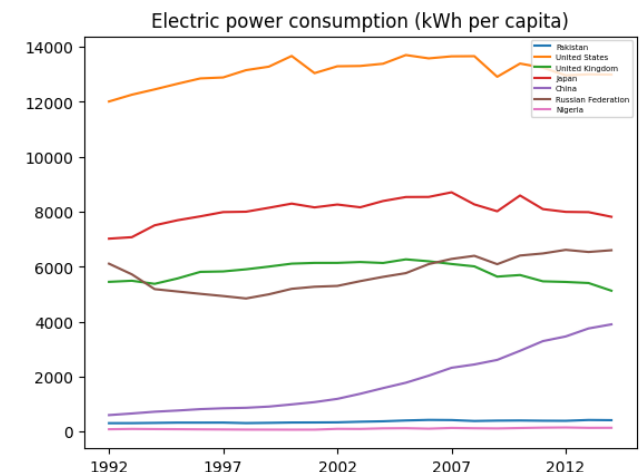
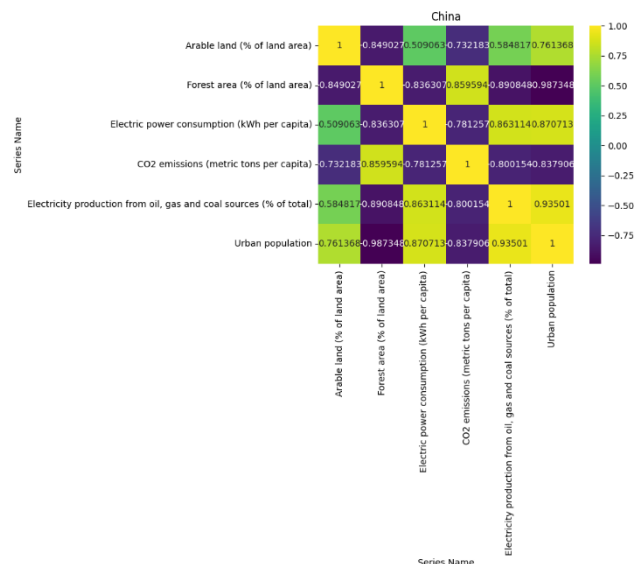
<https://github.com/mansoorkashif1997/ADS1-assignment2.git>

The analysis found some correlations between the factors and causes behind them were investigated.



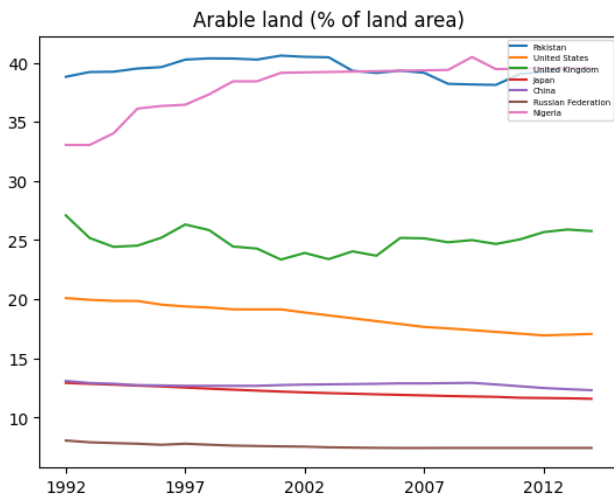
The bar graph above on CO2 emissions by the countries was constructed from 1992 to 2014 using the available data with 5 years of gap. United States is the biggest producer of CO2 emissions. While China is the only country in the graph showing an upward trend with accelerated rates which is as shown in their Urban Population as seen on the Urban Population plot on the top right. The CO2 emission is related to the Urban Population.

The 'CO2 emission' and 'Urban population' graph for Japan has same upward trend which is important at world level.



The above graph for Electric power consumption also shows that the China is the only country with countinuous increase in its electricity consumption with intern is also causing increase in its CO2 emissions and thus contributin towards climate change. Russia and Nigeria has almost the same electricity consumption over the year. Russia is more likely using renewable energy and develop energy efficient system. While nigeria due to lack of resources has not seen any change in its electricity production and thus electricity consumptions.

The above correlation heatmap of China, it is quiet obvious that the increase in Urban population is due to more opportunities of work in Cities and also contributes towards the growth of the living standards of people which inturn leds toward more CO2 emissions.



The decrease in Arable land is also having bad effect on climate change. Russia has high arable lands because of its area. The China has low percentage of less than 15% Arable land available which leads to less cultivated land and less tress. Which in turn is causing more climate changes.