Climate change data analysis based on World Bank data

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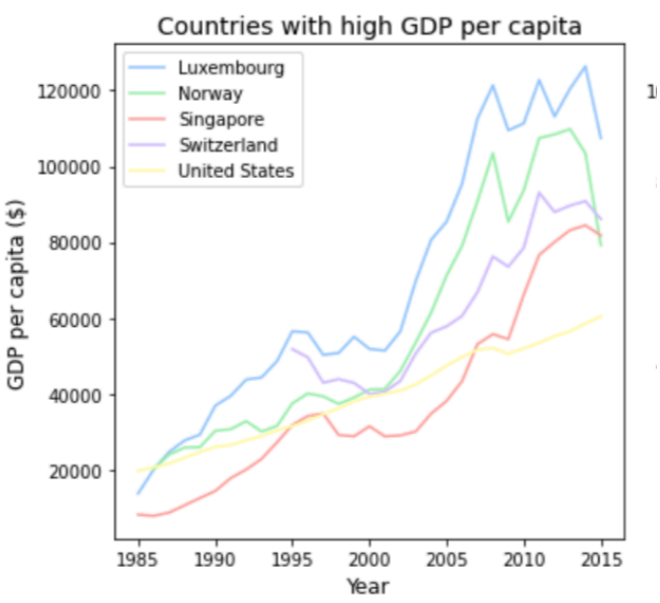
Data set:

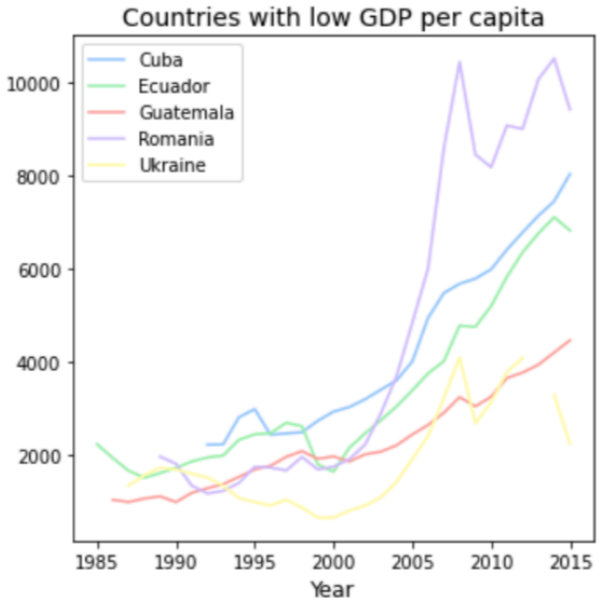
Git link: https://github.com/Sabina-sana/WorldBankDataSet.git

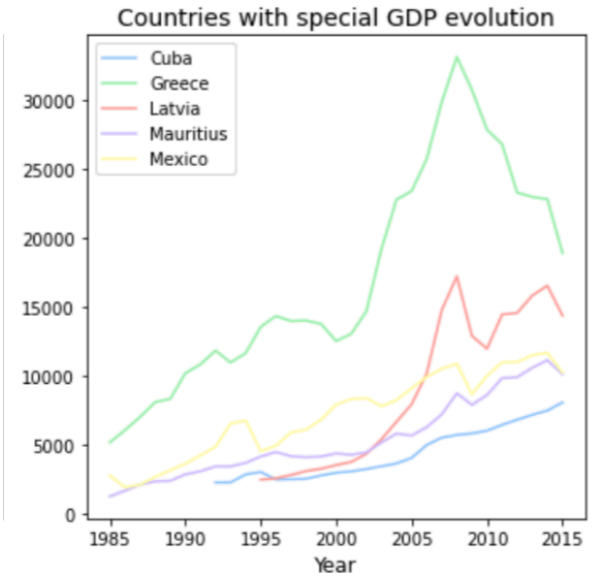
Abstract

For this analysis 15 countries from different continents were selected and the interrelations of the following factors on climate change were investigated: total greenhouse gas emission, Rural and Urban population (% of total), Forest area, Arable land.

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

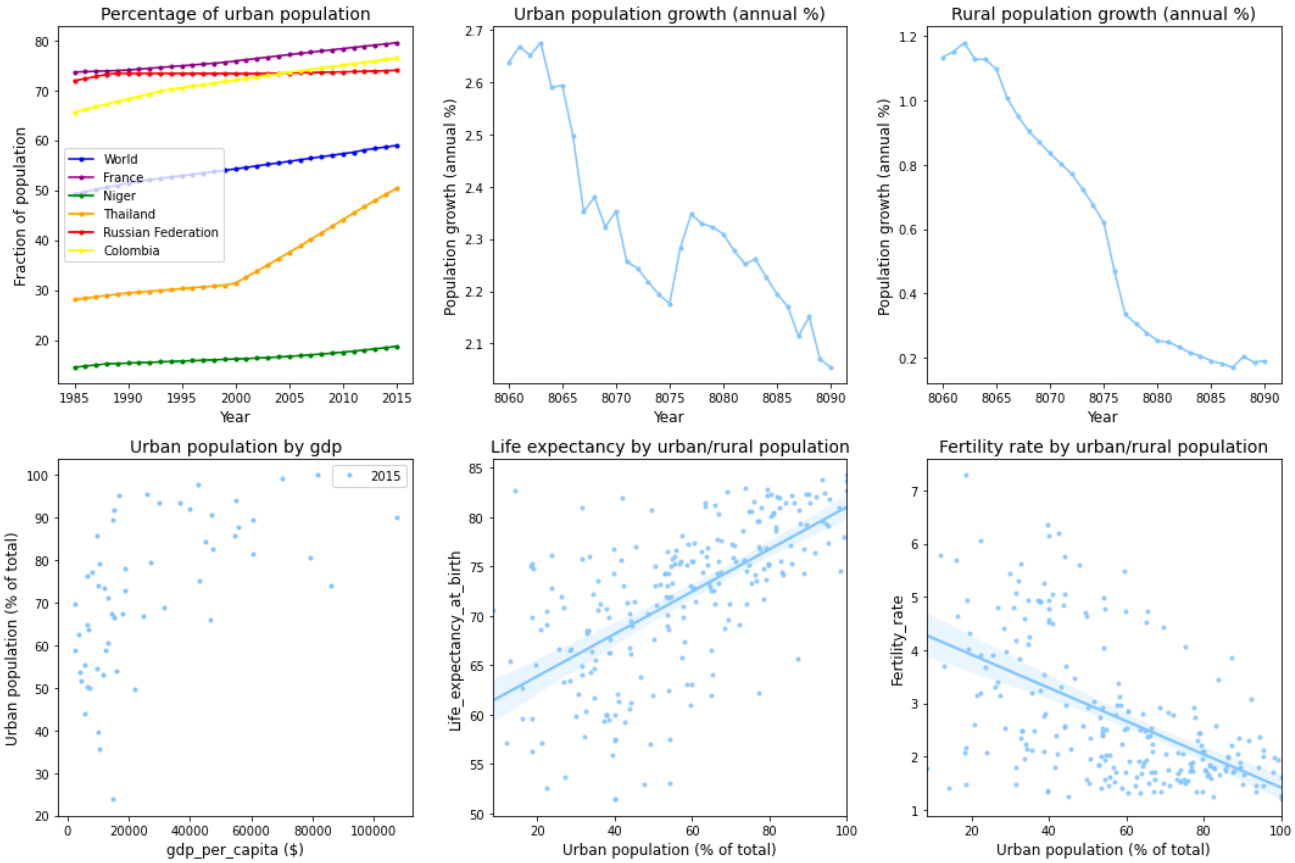






High GDP countries have similar curve profiles with a jump in the early 2000s and a drop in recent years. The United States is an exception, with a more stable GDP per capita but lower than the other four countries. Low GDP countries have more diverse curve profiles, with the decrease in recent years less clear, except for Romania. The tendency below year 2000 is flatter and does not sky rocket until the technological revolution. The Great Recession triggered a financial crisis in Greece due to the high budget deficit and public debt to GDP ratio. Different countries have different economies. Latvia, Mexico, and Mauritius show evident differences. Mexico and Mauritius have a similar curve, with the same GDP per capita in several years, but Mexico's economy has been stronger and more convulsed with big fluctuations. Latvia has multiplied its GDP per capita by a factor of 7 in less than 20 years since 1996 when it had the same GDP per capita as Cuba. However, the Great Recession greatly impacted their economy, similar to higher GDP countries.

https://data.worldbank.org/topic/climate-change



The trend of population growth is increasingly concentrated in urban areas, and this gap between urban and rural populations is widening. Thailand has experienced the most rapid urbanization since 2000, although some countries have evolved more quickly than others.

Population growth is slowing down, and the growth rate of both urban and rural populations is declining over time. However, rural growth has decreased to concerning levels near 0%, and if this trend continues, the world will experience a decrease in population in rural areas.

Countries with medium or high GDP per capita typically have urban population percentages above 60%. There is a positive correlation between GDP per capita and urbanization, with higher GDP per capita leading to a higher percentage of urban population.

Countries with a larger percentage of urban population tend to have longer life expectancies but lower fertility rates, as observed in the last two graphs. However, the correlation is weaker for smaller urban population percentages, where values are more dispersed.