Name: **Gaurav Kumar**

Student Id: **21061492**

Git Hub link

Analysis based on World Bank Data related to climate change

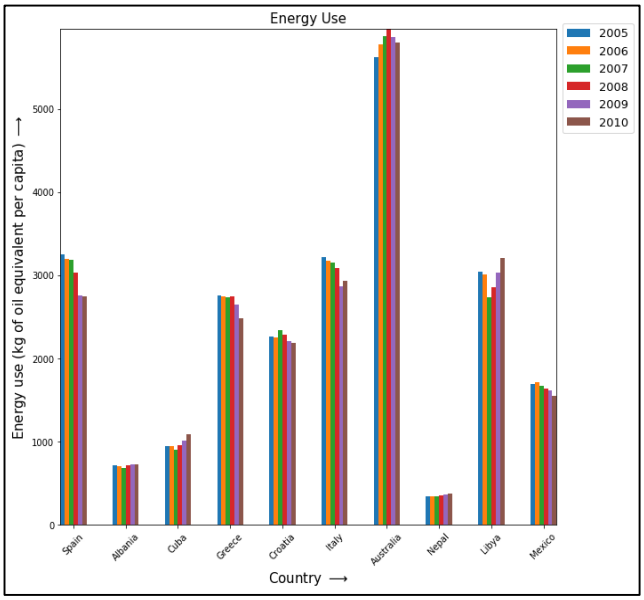
Abstract:

This report provides an overview of the analysis and its objectives. The analysis aims to explore data from the World Bank and investigate the factors that are interrelated and impact countries' growth and energy consumption. The analysis considers several factors, including energy use, CO2 intensity, CPIA public sector management, and institutional capacity, and mortality rates.

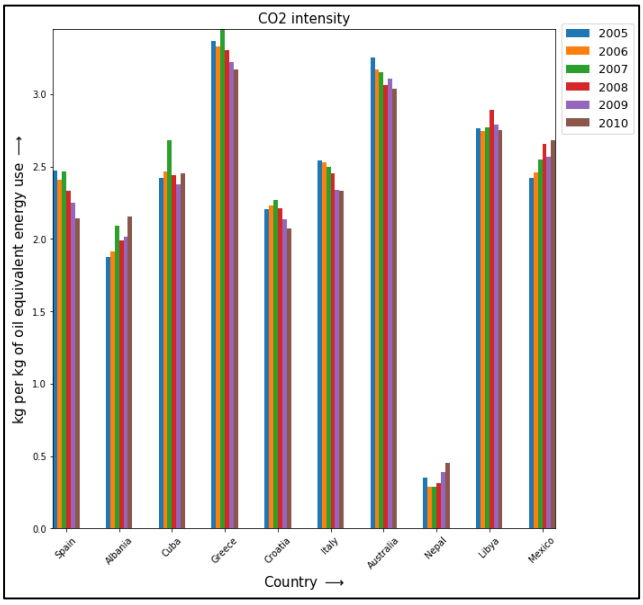
The analysis aims to identify the correlation between these factors and investigate the causes behind them. The results of the analysis provide insights into the challenges and opportunities associated with addressing climate change and offer a basis for developing effective policies and strategies for mitigating its effects. The analysis offers a comprehensive understanding of the factors impacting the environment, society, and the economy and provides valuable insights for policymakers and stakeholders.

Introduction:

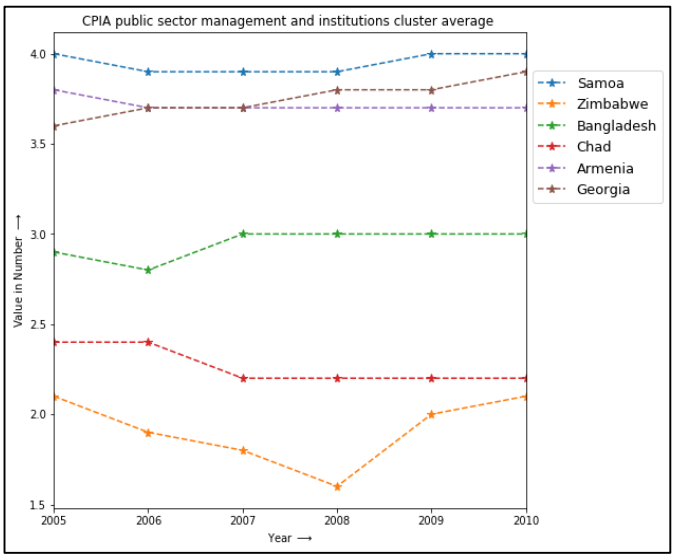
For this analysis 10 countries were selected and the co-relation between below factors: Energy use (kg of oil equivalent per capita), CO2 intensity (kg per kg of oil equivalent energy use), CPIA public sector management and institutions cluster average (1=low to 6=high), Mortality rate, under-5 (per 1,000 live births). The analysis found some correlations between the factors and causes behind them were investigated.

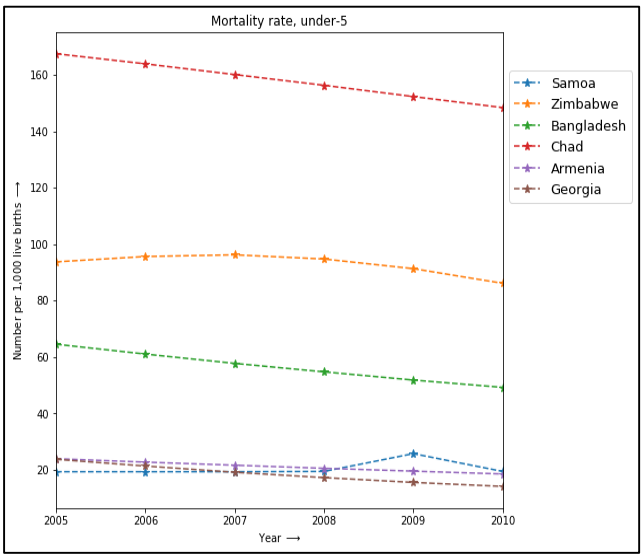


This bar graph provides an overview of the bar graphs depicting energy use in kg of oil equivalent per capita for 10 different countries from 2005 to 2010. The graphs show that Australia has the highest energy usage, which has been consistently increasing every year except for a slight reduction towards 2010. The analysis suggests that the magnitude of this statistic is due to the size and growth of the country, whereas smaller countries like Nepal and Albania have lower energy usage. The bar graphs provide a visual representation of the energy usage trends in different countries over the years and can be used to compare and contrast the energy consumption patterns of different nations.



This graph provides an analysis of the impact of energy use on CO2 intensity for the same countries. The CO2 intensity reflects the emission of CO2 from solid fuels, and the data for Australia shows that this value is high due to its high energy use. The analysis highlights that there is a direct relationship between energy use and CO2 intensity, as an increase in one leads to a significant increase in the other. This trend is evident in the case of Australia, where both factors are high. In contrast, Nepal has lower values for both energy use and CO2 intensity compared to other countries during the same period. The graph provides a visual representation of the relationship between energy use and CO2 intensity and can be used to understand the impact of energy consumption on the environment.





This line graph provides an analysis of the CPIA Public Sector indicator, which is rated on a scale of 1 to 6, with higher scores indicating stronger public sector management. The Management and Institutions Cluster Average is a composite indicator that measures the quality of public sector governance and institutional capacity in a country. Here the data comparison is done between 6 different countries over a period of 6 years, from 2005 to 2010. The analysis shows that less developed nations like Zimbabwe have lower scores for this indicator, while more developed countries like Samoa and Georgia have higher scores. This suggests that countries with higher scores have better governance and stricter laws in place, while countries with lower scores may face challenges in managing their public sectors. The analysis provides insights into the relationship between public sector management and institutional capacity in different countries and can be used to evaluate the effectiveness of policies and strategies aimed at improving governance and institutional capacity.

The above line graph highlights the relationship between the CPIA indicator and the mortality rate for 6 different countries over a period from 2005 to 2010. The analysis shows that for countries like Zimbabwe, which have lower scores on the CPIA Public Sector indicator, the mortality rate is higher. In contrast, countries with higher scores, such as Armenia, Samoa, and Georgia, have lower mortality rates. This suggests that the quality of public sector governance and institutional capacity has a direct impact on the mortality rate in a country. The line graph provides a visual representation of the relationship between these factors and can be used to evaluate the effectiveness of policies and strategies aimed at reducing mortality rates in different countries.