CO2 emissions (metric tons per capita)

Introduction

Carbon dioxide emissions are those originating from the consuming of petroleum derivatives and the assembling of concrete. They incorporate carbon dioxide created during utilization of strong, fluid, and gas energizes and gas erupting. Carbon dioxide discharges, generally side-effects of energy creation and use, represent the biggest portion of ozone depleting substances, which are related with a worldwide temperature alteration.

1. Effects of co2 emissions on the environment

CO2 emissions, mainly through-merchandise of electricity production and use, account for the biggest share of gases, which are related to temperature change in the world. Cement production releases approximately half a metric ton of carbon dioxide for each metric ton of cement produced. Data for CO2 emissions include gases from the burning of fossil fuels and cement industries, but excludes emissions from land use including erosion.

2. Analysis

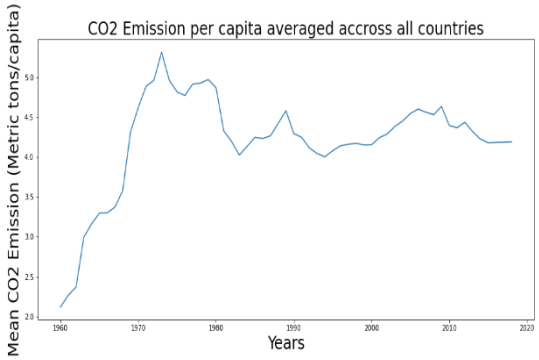

Figure 1: CO2 Emission per Capita averaged across all countries

In above graph it shows CO2 emissions per capita averaged across all countries since 1960 to 2018. After 1960 in different developed countries. CO2 emissions (metric tons per capita) in all countries were reported at slightly more than 4.0 metric tons in 2018, according to the World Bank collection of development indicators, compiled from officially recognized sources. In past from 1960 to 1972 CO2 emissions (metric tons per capita) increased gradually from 2.2 metric tons per capita and in 1972 it becomes slightly lower than 6. Due to this emission of carbon dioxide, it led to global warming. The most important factor is industrialization.

Different countries took initiatives to control this emissions. Because, due to this emissions it effects on global temperature and it increased from the previous one. Due to humans temperatures are increasing around the world.

With major countries initiative, it diminished slowly and the atmosphere was not completely eradicated but became much better than before.

According to researchers, the key element is powering economies with clean energy, replacing polluting coal - and gas and oil-fired power stations - with renewable energy sources, such as wind or solar farms. This would dramatically reduce carbon emissions.

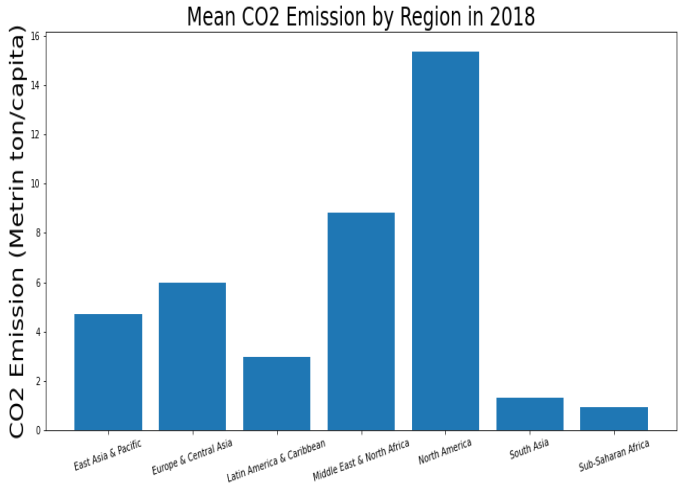

Figure 2: CO2 Emission by region in 2018

In fig 2 we took mean CO2 emissions by region in 2018 from seven continents and showed which continent is top emitter of CO2. According to graph we can conclude that North America was the largest emitter. and Sub Saharan Africa had the lowest emissions.

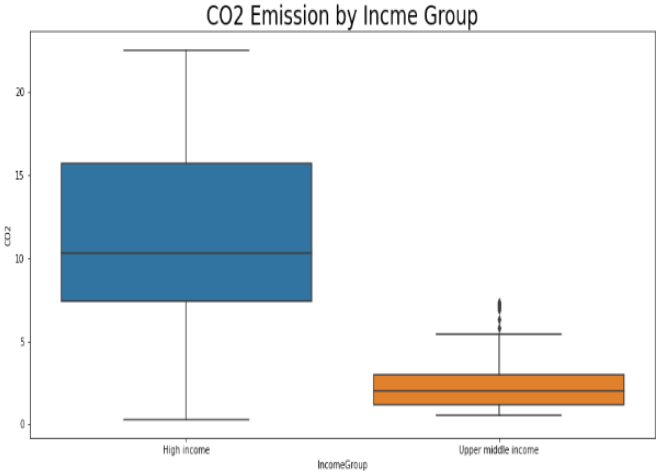

Figure 3: CO2 Emissions by income group of all countries

In this boxplot graph the data is divided in to minimum maximum and mean of data between income group and CO2. On x-axis income group is divided into two different groups (high income and upper middle income) and on y-axis it shows the emissions of CO2. In blue box plot where emissions are high means in those countries income rate is

also high. On the other hand, where emissions are low means in those countries income rate is also upper middle.

CO2 emissions tend to keep increasing with income.
Number of studies have discovered that emissions remain consistent with dollar at middle income level. (Dietz and Rosa 1997, Schmalensee et al. 1998), a variant of the 'environmental Kuznets curve'.

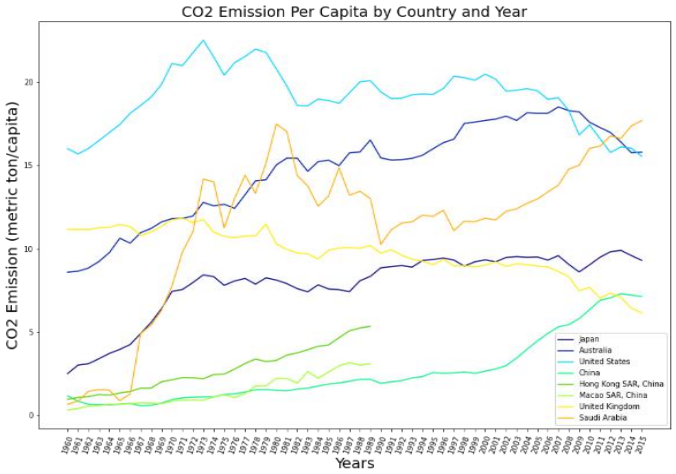

Figure 4: Average of CO2 Emissions per capita by selected six countries among the world from 1960-2018

In fig 4 we took mean CO2 emissions by countries since 1960 to 2018 in 2018 from seven selected countries and showed which country is top emitter of CO2. According to graph we can conclude that USA was the largest emitter. and China had the lowest emissions.

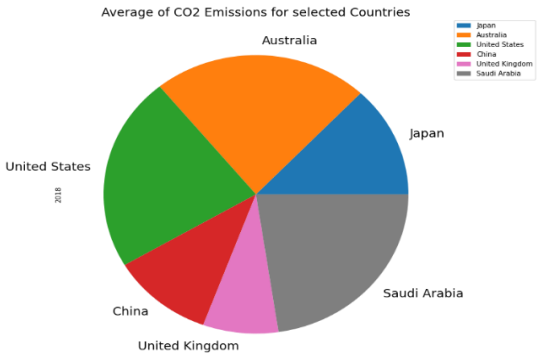

Figure 5: Average of CO2 emissions for selected countries

The pie graph shows the average emissions of my selected countries from all over the world, with Australia having the highest average emissions since 1960 to 2018. And United Kingdom is the smallest emitter among these selected countries.

References:

1. Dietz, T and E A Rosa (1997), “Effects of population and affluence on CO2emissions”, Proceedings of the National Academy of Sciences 94(1): 175-179.
2. https://databank.worldbank.org/metadataglossary/world-development-indicators/series/EN.ATM.CO2E.PC
3. https://www.nationalgeographic.com/environment/article/greenhouse-gases#:~:text=They%20cause%20climate%20change%20by,change%20caused%20by%20greenhouse%20gases.