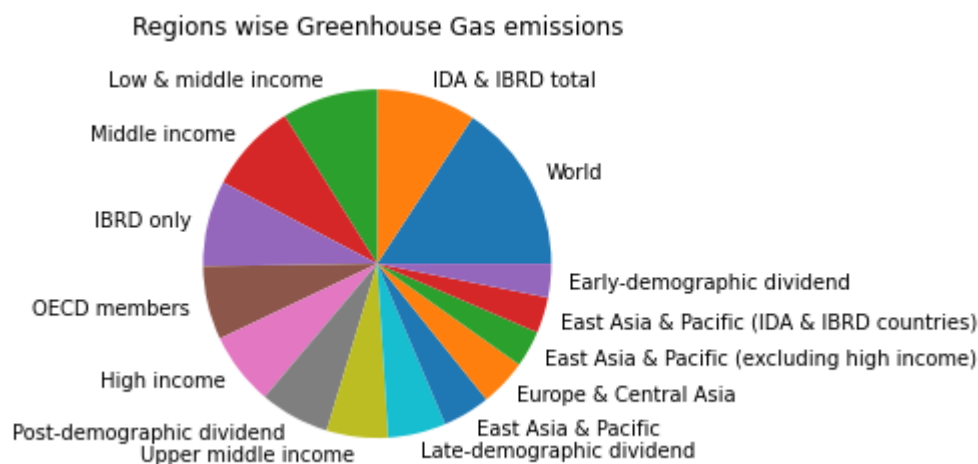


Are humans responsible for climate change?

The investigation has been carried out on three factors that impact climate change: CO2 Emissions, Greenhouse gases and Population growth. The research has been carried out on data available from 1960 to 2020 for the above-mentioned factors. The findings are mentioned below:

The climate on Earth has been changing since it formed about 4.5 billion years ago. However, since the Industrial Revolution in the 1800s, the global temperature has increased at a much faster rate. There are a lot of things that affect climate change but the evidence is irrefutable.

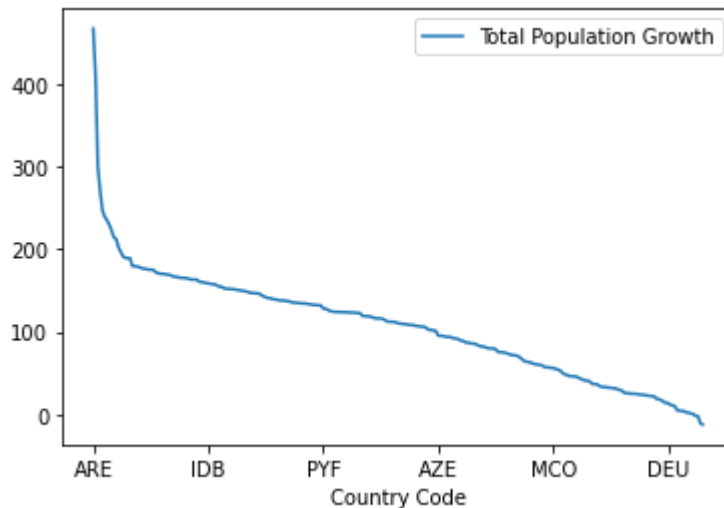
Beginning with one of the highest contributors to increase in global temperature: Greenhouse Gases! Below shown is the region wise contributors to Greenhouse Gas emissions:



When light from the Sun reaches the Earth's atmosphere, it passes through air and clouds to the surface, where it is absorbed and radiated upward in the form of infrared heat. 90% of this heat is then absorbed by **Greenhouse gases** and radiated back towards the surface, which is then turned to about 15 degrees Celsius which is a temperature that enables life on Earth.

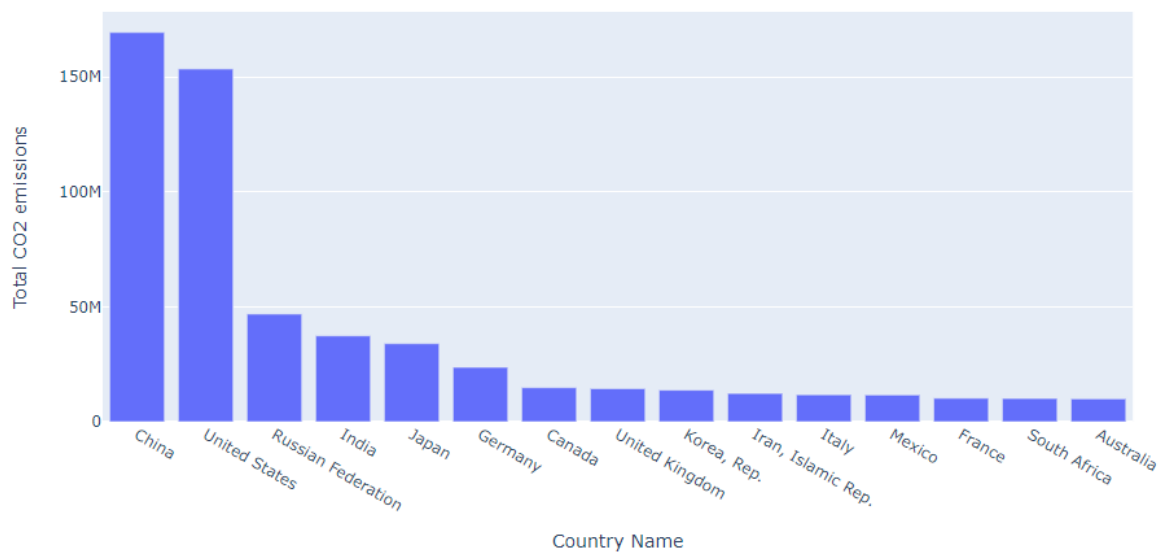
Population is also one of the factors that impacts **global warming**. How do we say that? The higher the population numbers, higher will be the demand for food, space(real estate), water and also electricity. When the demand for food, space(real estate), water and electricity increases, pressure to meet the demands is placed on Earth's natural resources.

In this process, either through agricultural methods or burning fossil fuels and coal, more and more Greenhouse gases are released. The **United Arab Emirates(ARE)** has the highest population growth on an annual basis. The chart below shows the countries with highest population growth on an annual rate:



Carbon Dioxide is one of the greenhouse gases that is most commonly produced by human activities and is responsible for a huge percentage of global warming. While the greenhouse gas emissions chart shows a region wise data, let's look at the countries that impact the most to Carbon Dioxide emissions(CO2 emissions).

Top 15 Countries with highest Co2 Emissions



China, United States and Russian Federation are the Top 3 countries contributing the highest to CO2 emissions in the world

Basis the investigation in this research, we can say that humans are indeed responsible for the climate change. If the countries contributing highest to climate change and each of us was to implement environment friendly alternatives it will definitely be a step in the right action. Afterall, it's just One Earth that we have. Let's Protect it!