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## Problem Set # 7

### An Analysis on Greenhouse Gas Emission (CO<sub>2</sub>)

Greenhouse gas emission is a menace to human life on the Earth. Frequency of natural disaster is increasing along with rising human health issues as a consequence of greenhouse gas emission. Ironically, various human activities are causing the disastrous greenhouse gas emission every day. We are literally destroying our home. The emission is increasing amid various global, regional and country-specific efforts to curb this problem. Here, the analysis will shed light on the overall greenhouse gas emission trend along with country and sector-specific contribution to the emission.

Figure-1 describes world greenhouse gas emission trend along with the trend of top five greenhouse gas emitting countries in the world. The world emission line shows an increasing trend. Top greenhouse gas-emitting countries are China, USA, India, Russia, and Japan. Country-specific emission trend portrays an increasing level of emission by China and India when USA and Japan are maintaining a stable but high level of greenhouse gas emission.

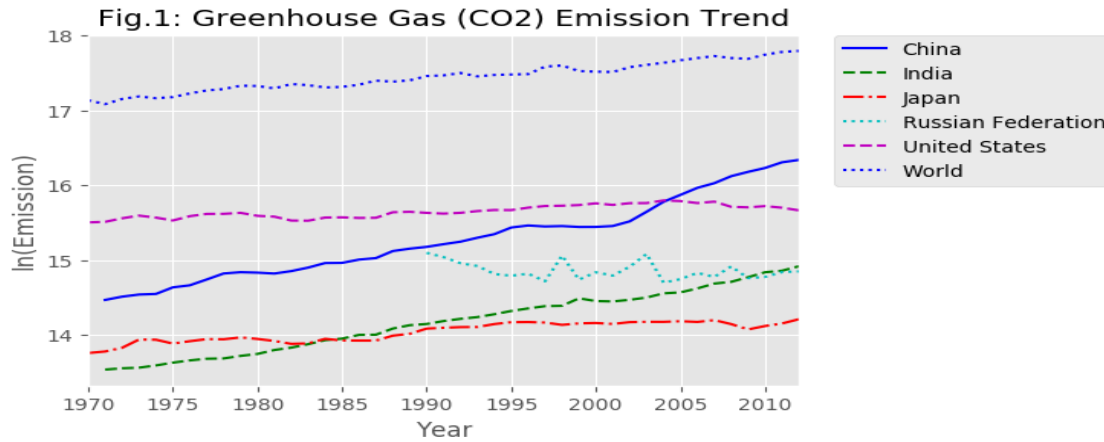
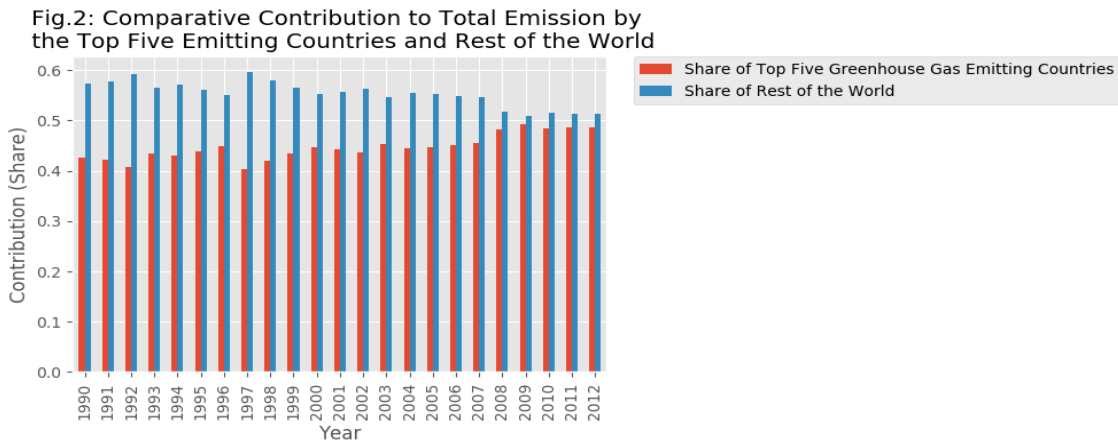
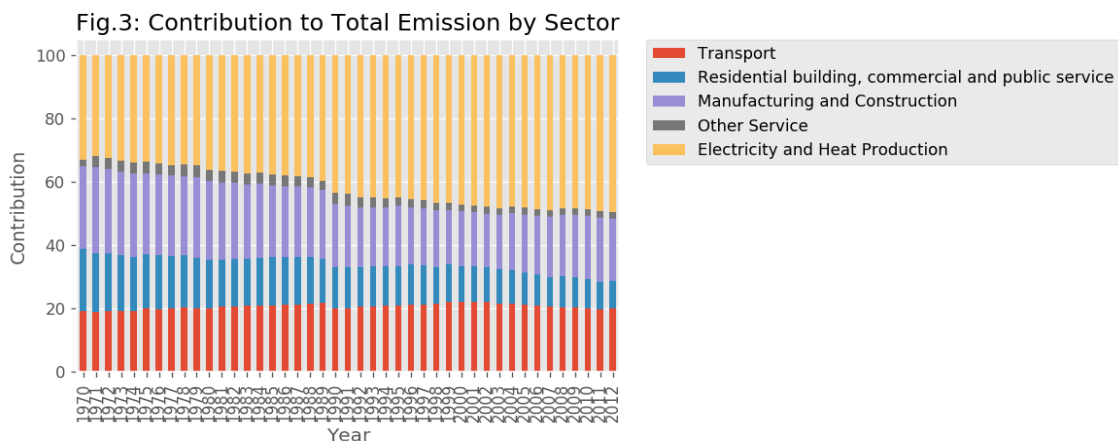


Figure-2 portrays the comparative contribution to the emission by top five emitting countries and the rest of the world. It is easy to see that the top five emitting countries have been contributing to the increasing greenhouse gas emission by more than 40 percent consistently for almost last three decades. This share is alarmingly maintaining an increasing trend and getting close to 50 percent. This scenario is adumbrating the weakening world

effort to reduce greenhouse gas because of a few countries' increasing emission level. The whole world is paying price for the development of a small number of countries.



Let's switch to the sector-specific contribution to the greenhouse gas emission. Figure-3 delineates the contribution of different economic sectors to the total emission. We can clearly perceive from the graph that composition of greenhouse gas emitting sectors is changing over the years. The world is successful to reduce greenhouse gas emission from the residential building, commercial, and public services, but greenhouse gas emission is increasing significantly from electricity and heat production. It implies that if we fail to find an environment-friendly way to generate electricity and heat, our all efforts to pull down the emission level will result in vain.



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From the above discussion, we can conclude that the absence of an effective and responsible effort of major industrialized countries is one of the massive impediments on the way to the successful control of world greenhouse gas level.