**Summary Analysis for Population: Effect on International Metrics of 11 Countries through 2010-2018**

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In terms of the environmental analysis of our data, one can assume that the most populated countries are the worst polluters. But when looking at a country’s cement carbon footprint, Israel is in second place with China in first and Japan in third. Since we plotted over the span of nine years, we can see trends in the lines and can try predicting the future. From 2010-2018, Israel’s cement carbon footprint has been decreasing. We can predict that it will continue to decrease and go below Japan. Surprisingly, the carbon dioxide emissions per capita have been relatively flat with the exception of China and India. India was the most unexpected per capita polluter.

In terms of the health analysis of our data, the life expectancy rates for the top three countries were Australia, Israel, and Japan whereas the bottom three countries were India, Russia, and South Africa. Among the top three countries for life expectancy rates, to include Germany, they also have low infant mortality rates which is a clear indication that they have overall better health compared to the other countries. Among the bottom three countries for life expectancy rates, to include China and Brazil, they have the highest infant mortality rates which is an indication that they have poor quality health. China and India had below average life expectancies and had the two highest annual death rates. Therefore, we can conclude that there is an inversely proportionate correlation between population and health outcomes which is understandable given the population density. Since China is the largest densely populated country and second leading country in death rates for outdoor air pollution, cardiovascular disease, and cancer, there is likely a correlation between population and health outcomes except for South Africa. This is likely due to healthcare costs and availability, nutrition or malnutrition, and economic status.