Summary

Air pollution, as per the World Health Organization is the biggest environmental risk to mankind. In just the European Union, 400,000 lives are lost per year to air pollution. 9 out of 10 people on the Earth are breathing air containing a high level of pollutants. Every year 4.2 million lives are lost due to outdoor air pollution, while 3.8 million lives are lost to indoor air pollution. And to really feel the gravity of the situation, 91% of the population on the Earth breathes unhealthy air. With the recent event where COVID-19 pandemic was spread across the world, we lost 450,452 lives in just a few months. With no cure/vaccine for the disease, the death count is still on the rise. The lockdown that was implemented in order to put a stop to COVID-19 also helped in reducing the pollution levels across the world, but not without consequences.

Through this project, we aim to show a contrast between lives taken by COVID-19 and lives that were saved due to a decrease in pollution. This was done by collecting the data, creating the visualizations based on it to derive the insights which will answer our main question.

Impacts of COVID-19

COVID-19 started in early December 2019. And sooner than expected the whole world became a victim of the virus. The virus not only took 450,452 lives but also had huge consequences on the planet; Good and bad both.
The lockdown that was imposed around the world helped in stopping the spread of the virus, stopping the world greatly helped in decreasing the pollution in general. But also its consequences were huge. The tourism industry was the one which received the harshest blow. With approx no tourists or travellers both small and big tourism businesses lost huge amounts of money, something that indirectly affects the finance of some countries like Thailand whose main finance comes from tourism, Indirectly taking lives by maybe not corona but due to other reasons like hunger, malnutrition, poor sanitation or loss of civility.
Upon doing in-depth research we also saw the difference in deaths due to CORONA varied in different races of humans, afro American being affected the most(2075 deaths per 100,000) And Asians the least(584 deaths per 100,000).
After thorough research on pollutants and the pollution levels, we have discovered that PM2.5 is the most dangerous type. Alongside that, we were able to obtain a lot of needed data which had to be filtered, refined and visualised in order to be able to make graphs about the reduction of pollution in various regions of Italy. There was a remarkable decrease in PM2.5 pollutant of 1.2 percent.

Air pollution:

Over the years, development has not only cost us financially but it has had far more dangerous impacts on us living beings. Every year the number of deaths due to air pollution is rising, and we haven't seen any big changes being made to tackle this environmental hazard which we ourselves created.

The situation is worse in the developing countries, especially when they put development at the highest position in their list. The rise in PM pollutants in the air has risen exponentially. The indoor pollution(due to the burning of fuels) is not decreasing at all. The deaths due to air pollution are lower to middle-income countries, with the highest across Sub-Saharan Africa and South Asia. In developing countries, air pollution is the leading factor for the deaths and as per 2017 data, 5 million people lost their lives due to air pollution, which roughly counts to 1 death in every 10 people. The death rates in these highest-burden countries are about 100 times more than deaths across Europe and North-America.

Impact of CORONA And Air pollution together:

CORONA ended up affecting 8532660 people and took 454026 lives in total as of 18/06/2020. However, when compared to air pollution we cannot say who is the bigger demon here, as air pollution takes approx 7 million lives. In order to get the final insights and answer our main question, visualizations were made on the basis of data we had.

The rise in deaths due to CORONA was steep, however, the curve was reduced with the time and the forecast visualized us a possible reduction in COVID-19 cases.

On the other hand, the same forecast tool for Air pollution predicts a different picture, as we all know the lockdown which is the core reason for less air pollution is temporary.

Hence we decided to visualize the data at hand to get a clear picture of what can and is happening if other factors are removed from the scenario.

The final visualizations were made with keeping just CORONA in mind and a few very important pollutants. Visualizations in order to show the possible deaths that were avoided due to better air quality and visualizations to show a comparison between lives that were saved due to better air quality versus lives taken due to coronavirus painted a clearer picture to draw the final insights from.

Final insights:

About 80% of the countries in the world are in total border closure. Not only did the border lockdown have a big impact on the distribution of food, increase in disorganisation & disorder and the export & import but also hit the tourism industry very hard.

Differences in poverty & healthcare, as for example with African American communities that cannot afford proper healthcare because it's not mandatory in America increases the risk that Covid-19 will infect and/or kill people of that community.

February was the month with the least number of deaths due to coronavirus in Italy,as only on the 21st, the first death was registered. In the following days and months, the number kept growing and it reached approximately 30,000 premature deaths.

However, since Italy went into total lockdown in February 2020, there has been a continuous decrease in the number of deaths due to air pollution.

Till April about 28 thousand premature deaths were recorded due to Coronavirus. On the other hand, till April 2020, about 2100 lives were saved due to less air pollution. Although a considerable amount of lives have been saved due to less pollution, Coronavirus appears to have stolen much more lives.

Conclusion:

Our project was meant to show the correlation between the corona and air pollution in Italy but later expanded into research about GDP, Racial deaths, Poverty and Healthcare related to Corona.

To answer our main question: When deaths due to corona are compared to lives saved due to better air quality(which is one of the many factors that were affected by corona), we find Corona did end up taking more lives than it saved.