

# Understanding the Impact of the COVID-19 Pandemic on the Environment

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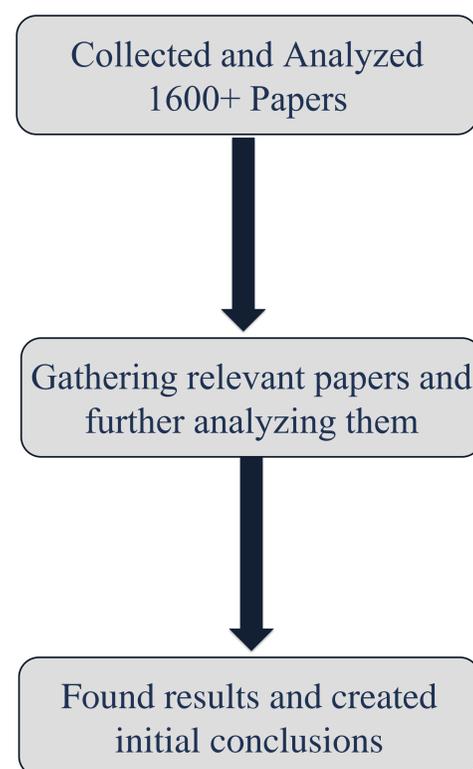
## Highlights

This poster **investigates** the **environmental impact of COVID-19** by conducting a **literature review**. I **scoured** and **analyzed** research papers within our collected paper database to **derive conclusions**.

**Four second-order impacts** were identified as the **most impacted domains** of the environment from the COVID-19 pandemic: **water quality, air pollution, waste management, and environmental policies**.

Holistically, while there are some negative environmental outcomes from this pandemic, there is a much **larger number of positive impacts** on the environment, and if environmental policymakers can **ensure** that the future runs in a **similar nature** as to how it has during the pandemic it is **better for humanity in the long-run**.

## Methodology:



## Results:



Water Quality

As preventative measures have become enforced during the pandemic, **tourism has suffered detrimentally**, but as a result locations across the world have seen an **increase in water quality** and a **reduction in boat traffic**. In addition, with the decrease of mobility, **oil leakages have decreased** and water quality has increased. Countries across the planet are experiencing **increased cleanliness water samples and water transparency**.



Air Pollution

There is an **immense decongestion of air pollutants**, the data suggests that this trend originates from reduced mobility (hence less CO2 emission), and decreasing usage of coal-fired power station. Additionally, **PM2.5 particles have reached a maximum reduction in most countries**, which led scientist to investigate the **inverse relationship between the ozone quantity and the PM2.5 particles**. Although the current **air pollutant trend is for the better**, most scientist and analyst believe that this positive trend is only **temporary**.



Waste Management

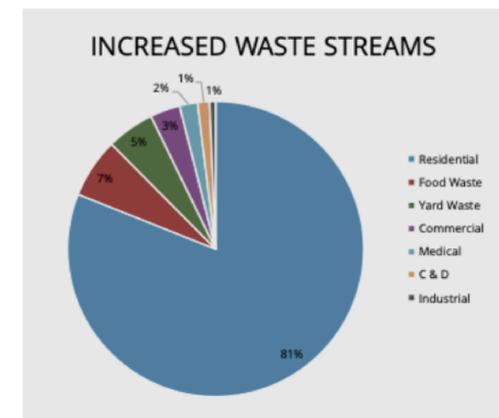
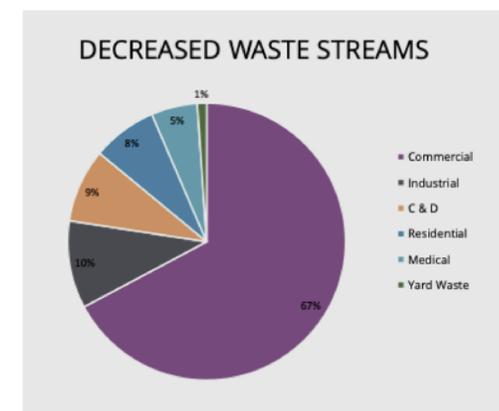
There are **two categories** within the waste management domain - **household waste** and **medical waste**. When it comes to household waste countries are experiencing an **overall increasing trend of plastic waste** due to the increased usage, but **recycling is on a decreasing trend**. When it comes to medical waste, the **demand has significantly increased** due to the pandemic, but it is **hazardous** as well as **contagious**. Therefore, they have to be treated specifically, which is a strenuous process and **does not fit the ongoing demand**, therefore there is an influx in waste.



Environmental Policy

Due to the **economic burden** of this pandemic countries have been **reallocating their money** to assisting the people, as well as the economic crisis, and **reducing the money for environmental protection agencies**. Similar to the countries themselves, the companies and organizations focus on their **social and economic issues**. Therefore, as a result the **prioritization of environmental issues has suffered a negative impact**.

## Trends in Waste Management

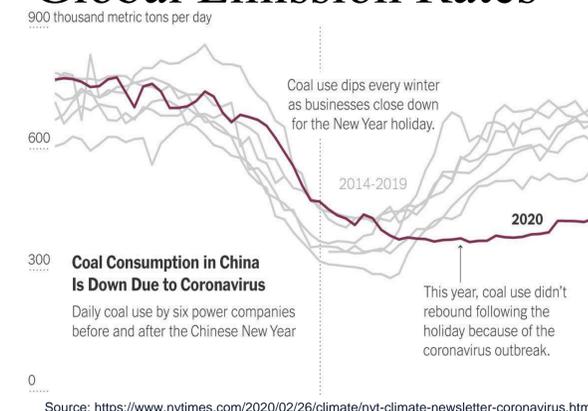


Source: <https://www.waste360.com/business/weathering-essential-look-inside-covid-19-impact-waste-and-recycling-industry>

## Future Plans

Although I have already begun **deriving conclusions** from the papers gathered within the literature review, in the future I would like to **further investigate** the impact COVID-19 has on the environment with a **larger database**. Hence, I would utilize the large database with other available papers to provide **more evidence** on this correlation. In addition, if the opportunity would arise, I would also like to **schedule a meeting** to **corroborate** with other researchers who focus on this domain to receive **more feedback** from professionals and to **receive insight** on my research.

## Global Emission Rates



## Conclusion

The pandemic has revealed to the world just how possible it is for **anthropogenic emissions to decrease**, for **waste management to adapt**, for **water quality to increase**, and for **environmental policy to change** when it is deemed necessary. While health and social implications have been studied immensely as they are the most apparent changes from this pandemic, few have looked **further** into the environmental implications from this pandemic. Hence, it is necessary for **more research to be conducted** on this correlation, as my results account for the **short-term implications**. Additionally, **action is necessary** for these **positive implications** from the pandemic, to remain **constant** for the **future**.

## Acknowledgement

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