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:

- Collected and Analyzed 1600+ Papers
- Gathering relevant papers and further analyzing them
- Found results and created initial conclusions

Results:

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.

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.

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.

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

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.

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