

## IMPACT OF COVID ON THE ENVIRONMENT AND CLIMATE: A REVIEW IN INDIAN PERSPECTIVE

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**Abstract**— The environment is a primary component of human and animal wellbeing. COVID-19 is a global challenge to the wellbeing in the twenty-first century. The actions taken to control the spread of the virus and the slowdown of commercial activities have important effects on the environment. The corona disease forced the countries to adopt lockdowns or severe restrictions to the citizens as a measure of reducing the spread of the pandemic. The viral pandemic has made both positive and negative unforeseen effects on the environment. Thus, this article intends to review the positive and negative environmental impacts of the COVID-19 pandemic.

**Keywords:** *Corona Virus, Pandemic, COVID-19, Wellbeing and Environment.*

### Introduction

The global outburst of coronavirus 2019 (COVID-19) is distressing every part of human lives, together with the physical world. The global disturbance caused by the COVID-19 has brought about numerous sound effects on the environment and climate. As a result of the pandemic and the restrictions to curb the spread of disease, changes were resulted in the environment and climate. Due

to movement control and major slowdown of social and economic events, air quality has better in many cities with a decrease in water pollution in different parts of the world. Moreover, more use of Personal Protective Equipment (PPE) like face mask, hand gloves etc., their random removal, and generation of a vast quantity of hospice waste has negative impacts on the environment. Both positive and negative environmental impacts of COVID-19 are present.

### COVID - 19 and Literature

Coronaviruses belong to the group of viruses with subfamily Coronavirinae within Coronaviridae family and are deemed as possible agents of respiratory diseases with symptoms such as flu, fever, runny nose, cough, breathing difficulty, pneumonia, and lung infection (Rothan et.al, 2020). The outburst of COVID-19 first emerged at the end of December 2019, from the Hunan seafood market in Wuhan City of China, and declared as an international public health emergency in a couple of weeks by the World Health Organization (WHO, 2020a). It is an infectious disease caused by severe acute

respiratory syndrome coronavirus-2 (SARS-CoV-2) (Islam et al., 2020).

‘The Last War’, the play written by British Dramatist Neil Grant was written 86 years ago the explosion of the COVID - 19 pandemic! The drama portrays the wiping out of mankind by the bio weapons carrying deadly viruses grown in the laboratories for destructing their enemy countries. As the whole humans were killed in the war, a group of animals discusses about the cruelty of man towards the nature and how their deeds resulted in their own destruction. The play looks at man’s idiocy from the perspectives of animals.

This play remind us how we the humans are neglected our mother nature and how the nature strikes back in the form of natural disasters, pandemics etc. This drama has the relevance at the present scenario where the world has met a standstill due to the pandemic and urges us to conserve the nature and other living things to keep the balance of nature.

## Positive Impact of COVID-19

### *Air Pollution*

The COVID -19 forced the countries to adopt lockdowns or severe restrictions to the citizens as a measure of reducing the spread of the pandemic. Some of the main measures taken by the governments to slow down the outbreak are contract tracing, travel restrictions, social distancing, temperature checks, widespread testing, and ban on gathering, closing of educational institutes, lockdowns, and self-quarantine (Cowling

& Aiello, 2020). This has resulted in sudden reduction of the use of fossil fuels as the travels were stopped or restricted. As a result, Carbon monoxide and other air pollutants were reduced hugely. The capital city of India, New Delhi was one of the most polluted cities of the world (Singh & Chauhan, 2020). This scenario was changed due to the lockdown imposed by the Government to curb the spread of COVID - 19.

As factories, transportation and corporations have closed down; it has brought a rapid drop of greenhouse gases (GHGs) emissions. International air travel has also decreased intensely since the onset of the COVID-19 outburst due to the execution of travel restrictions. Effect of COVID-19 on air quality was also calculated through Air Quality index (AQI) which is one of the significant tools to measure the level of pollution due to major air contaminants. The Air Quality Index (AQI) in all the states of India is currently in two figures representing reasonably good quality of air after this lockdown.

### *Water Pollution*

Water pollution is a common phenomenon of an emerging country like India, where domestic and manufacturing wastes are dumped into rivers without treatment. The restrictions due to the pandemic also brought about the restriction of waste disposal especially the disposal of solid wastes like the building wastes, factory wastes etc. When the land was devoid of wastes, the water pollution has also reduced, since one of the main sources of water pollution is runaway wastes and

garbage. Articles and news in dailies and other electronic media expose the change in the quality of number of rivers of India comprising Ganga, Cauvery, Sutlej and Yamuna etc. The primary cause is lack of industrial effluents entering the rivers due to lockdown under this pandemic situation. They have touched a significant level of cleanliness and marine life is visible due to the lack of industrialized pollution on the days of lockdown in India. A decrease in water travel and movement could reduce the danger of ships striking and harming marine animals. It may also reduce the marine disturbance that happens due to noise pollution from ships, fishing sonar, and recreational boats.

### **Noise Pollution**

Noise pollution is the elevated levels of sound, generated from different human activities (e.g., machines, vehicles, construction work), which may lead to adverse effects in human and other living organisms. During the pandemic many people have started cycling (Smith, 2020). The sudden fall in the transportation also resulted in the reduction of noise pollution.

Recently there was news to the hope of nature lovers that a species of butterfly popularly known as 'Thakaramuthi' in Malayalam (Catopsilia Pyranthe) which is a migratory butterfly commonly seen in Kerala has reported to be increased in population. These are the species that travel in a group. Earlier the number of butterflies in a group was 150-200 but now it seems there are 400-500 in a roost.

### **Ecological Restoration of Tourist Spots**

Over the previous few years, tourism area has seen a notable growth because of technological developments and transport links; which donate meaningfully to global gross domestic product. The pandemic has also put a stop to the pressure of tourist places too. Social distancing directions and quarantines have led to considerable reductions in commuting travel as many jobs shift to working from home. For instance, the Eravikulam National Park in Munnar, Kerala has reported positive news in the midst of chaos in the time of Covid about the increase in the number of Nilgiri Tahr, an endemic and endangered species of Western Ghats (The Hindu, 2021). This is reported to be due to the lesser human interference and the presence of enough unpolluted grazing land. Many of the media around the world presented the stories of animal invasion in the once busiest streets of the cities which were deserted due to the pandemic.

Worldwide spread of COVID-19 in a quite small time has brought a dramatic reduction in industrial activities, road traffic and tourism. Limited human interaction with nature during this crisis time has seemed as a blessing for nature and environment. As the constructions were stopped, the pressure in the ecologically sensitive areas was reduced at least temporarily. Even though the situation is hopeful in the animal world, there is no news from the plant world. This may be due to the fact that the restoration of forested areas takes long years. All these incidents show that even though the pandemic can stop the world but could not stop

the nature from rising above the disasters caused by the humans!

## Negative Impacts of COVID 19

### *Biomedical Waste and Haphazard Disposal*

As the outburst of COVID-19, medical waste generation is greater than before globally, which is a main danger to public wellbeing and environment. Sample collection of the doubted COVID-19 patients, analysis, handling of huge number of patients, and sterilization purpose lots of infectious and biomedical wastes are generated from clinics. The hazardous wastes! The pandemic has caused havoc in the medical sector where there is immense pressure on hospitals. As a result, the medical wastes generated are huge and safe disposal of these include used PPE Kits, masks, gloves, syringes, needles and other associated materials must be managed correctly, to diminish further infection and environmental pollution, which is now a matter of worry globally.

### *Municipal Waste and Reduction in Recycling*

There is another side of destruction the pandemic has brought about. Recently, huge amount of sanitizers is applied into roads, business, and residential areas to destroy SARS-CoV-2 virus. Such extensive use of antiseptics may kill non-targeted valuable species, which may generate ecological imbalance. Intensification of municipal wastes both organic and inorganic generation has direct and indirect effect on environment like soil, air and water pollution. The threat of air, water and

soil pollution will increase once again as the hazardous wastes increase and the recycling processes decrease. More plastic waste will be generated and this will threaten the nature in a dangerous manner.

The concept of 3R's – reduce, reuse and recycle will only be in theory as the pandemic gets a super spread. Government has to take, measures for the safe disposal of these wastes and the give the people awareness against throwing out the used mask, gloves etc., in open.

## Conclusion

Covid-19 was declared pandemic disease by Director General-WHO on 11<sup>th</sup> March 2020. The pandemic has impacted the nature positively and negatively. Being a blessing in disguise, the Covid-19 pandemic during the past few months has positively improved the environment to a much greater level and has enhanced the effective link between nature and humans. Reports from all over the world are representing that after the outbreak of COVID-19, environmental conditions with air quality and water quality in rivers are refining and wildlife is blooming. India has always been a center of pollution with huge people, heavy traffics and polluting industries leading to high air quality index (AQI) values in all major cities. But after announcement of lockdown due to COVID-19, quality of air has underway to improve and all other environmental factors such as water quality in rivers have started giving a positive sign towards restoring. Whereas at the same time the lockdown and social distancing have paid positively toward



the environment, though, it is important to take into account the negative effects such as death, impacts on communal aspects, and the intense financial effects as well. What the man can do is to look back at his actions and promise himself to safeguard the nature. Else, what the nature provides will be taken back by the nature itself.

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