

ENVIRONMENTAL IMPACT OF COVID-19 PANDEMIC

By

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ABSTRACT

Covid-19 Pandemic has been a sudden shock to everyone. People have been caged inside their own homes since the Government announced lockdown. While the people were caged all over the world, they caught sight of animals out there enjoying the open spaces in the environment. Research found out that the ozone layer depletion got better although not to a large extent. People could hear birds chirping loud and clear while before they were hardly heard or seen around. The holy river Ganga has improved in its water quality which the government has been trying to do by investing millions without any success. Due to closing of shops and eateries, the street animals were starved and so certain NGOs and animal rescuers were seen feeding the stray dogs, protecting abandoned livestock, etc. The hope from this research is to give some guidelines on how the government and people together can conserve and protect the environment in a better way. Especially after the world gets back out there to function after the pandemic situation.

Key words: *Environment; Covid-19; Pandemic; Ozone Layer; River Ganga; Lockdown.*

INTRODUCTION

The Covid-19 Pandemic had struck a sudden halt to everyday activities in people's lives. Jobs have been lost, loved ones have been said goodbyes, and some have been stranded on the streets away from their homes or apartments. It would be safe to say that the whole world had been upside down for the people all over the world. Along with all of this comes the economic crisis, the shutting down of various industries and companies, which creates a vicious cycle of unemployment and decrease in economic growth & development. People had lost their hopes and had been forced to give away their goals and lifestyle since the lockdown. Being home quarantined brings its own struggles coping with stress, depression, anxiety, boredom, feeling stagnant and overall unhappiness and dissatisfaction in one's life. Whether the Covid-19 Pandemic has been a blessing in disguise is debatable.

While the human world has been struggling with respiratory disease, strange behaviour has been observed when it comes to the animal world and the environment. The industrial activities were shut down, road and air transport came to a halt too. NO₂ emissions were thus seen reduced in Wuhan, China,

Spain, France, Italy and USA (Sulaman Muhammad, Xingle Long & Muhammad Salman; April 2020). This caused a positive impact on the environment although temporarily but governments and individuals can learn the ways to reduce pollution on a long term basis from the lockdown. The Covid-19 pandemic has been a serious threat to human health but the pollution seems to be reducing and nature seems to be reclaiming itself.

Reduced automobiles, restricted road and air transport and trade, business shutdowns, closed parks, beaches and other areas have made a significant impact on the environment and wildlife. During early lockdown, images of wildlife intruding the cities were common in news reports and social media. All of this gathered public attention and people began saying that wildlife was reclaiming the urban city areas. Mammals, insects, and other vertebrates, birds, and herpetofauna were the wildlife that urban ecologists and community scientists have documented. But what if these species were always around and nobody noticed them before due to being busy with daily hustle and bustle. Did people take up a new hobby of watching wildlife while looking for ways to pass time?

The holy river Ganga got rid of toxins since the industrial activities came to a halt. The government had invested millions trying to clear the river from the toxins. All the investment from the government didn't bring any success but the Covid-19 Pandemic lockdown made it happen.

As industries shut down along with the road and air transport coming to a halt, the ozone layer started healing. Research found that carbon emissions dropped since covid-19 lockdown. Also researchers at NASA reported a decrease in ozone concentration above Arctic regions of the globe by 240 Dobson units on March 12, 2020 compared to March 12, 2019 ozone concentration (I. Khan, D. Shah & S.S. Shah; Nov 2020).

KEY QUESTIONS

Asking definitive questions and analysing the description helps to have a better understanding of the situation of wildlife and environment. It also helps to bring out a clear picture and have a conclusion to some of the questions and contradictions mentioned before.

How does the environment in urban areas or cities change because of the Covid-19 lockdown?

The global shutdown makes a significant impact on the environment in urban areas due to the fact that industrial activities, road and air transportation and trade, manufacturing, basically the economy came to a halt. The amount of air pollution and water pollution dropped as a result of restricted motorbikes and automobiles. Public transport and railways had stopped as well which made the air more clearer and healthily breathable. The hustle and bustle of human life was no longer possible thus, the nocturnal creatures no longer had to wait for humans to go to their homes to rest. The closing down of restaurants and food places or eateries caused many street animals and birds to go many days without anything to eat. Thus starvation was seen in these animal cases. People lost their jobs in lockdown due to industrial shutdowns. This led to pets and livestock being abandoned and left to fend

for themselves on the bare urban streets. People could observe the wildlife more frequently as they had nothing to pass their time. Birds chirping could be heard rather easily. The restriction of road and air transport and trade caused the noise pollution to decrease to a large extent. This caused a peaceful ambience to the people overall. Beaches were cleaner and clearer as no human interaction could happen.

How do government policies and activities dealing with urban shutdown affect wildlife and environment?

The one unique aspect of Covid-19 lockdown is that it could be observed how different modifications of human behaviour lead to different outcomes in wildlife and environment. It has been observed that human involvement creates a presence of fear on wildlife. Thus, it gives insight into how to manage stress in wildlife even after the lockdown and what measures to take in order to lessen the fear and stress of human life on wildlife.

Also, lesser involvement of human life in the environment cuts on air pollution, noise pollution, water pollution and creates a healthy and fresher ambience in the surrounding environment. This gives insight into how the governments and the individuals together can take some measures to maintain a good ambience and keep air, water and noise pollution at bay to a reasonable extent.

How does halting travel, transport and trade affect the wildlife and environment?

Restricting road and air travel, transportation and trade had a tremendously positive impact on wildlife and environment. International shipping, trade, and transportation increase the movement of human life all over the world. This can be a factor in spreading zoonotic diseases in animals and other wildlife species. Thus, halting these services keeps the dangers at bay. It decreases global travel and thus normative species are saved from getting diseases.

Also, restricting road and air travel, transportation and trade, international shipping, trade and transportation cause a major reduction in carbon emissions. Other such benefits include reduction in air pollution, noise pollution, water pollution, cleaner air, lessening of ozone layer depletion, naturally healthy ambience and environment, lesser dust fog, interaction of birds with human life, and cleaner environment for wildlife.

What is the impact of lockdown on water quality and aquatic life?

Research reports have shown that during Covid-19 lockdown not only the air quality but water quality also has improved. This was due to a halt on industrial activities of effluents disposal into water bodies. There has been observed a positive effect on the water quality. The Central Pollution Control Board of India (CPCB) and Dr. Mishra's reports state that Ganga River's water quality has increased by upto 40-50% (CPCB 2020). Indian Institute of Technology reported that Gnaga Riverwater has become fit for driving after decades with pH range between 6.5 and 8.5, total coliform levels - 5000 per 100 ml, biochemical oxygen demand - less than 2mg/L and dissolved oxygen - more than 6mg/L (I. Khan, D. Shah, S.S. Shah; Nov 2020)

Would the decrease in carbon emissions impact the healing of ozone layer depletion to a larger extent? Or is it a temporary change?

Transportation, industrial activities and electricity contribute to a large extent towards carbon dioxide emissions. Due to Covid-19 lockdown carbon dioxide emissions have been reduced to a greater extent all over the world.

Researchers at NASA reported a decrease in ozone concentration above Arctic regions of the globe by 240 Dobson units on March 12, 2020 compared to March 12, 2019 ozone concentration. During lockdown period i.e. March and April 2020, a

healing ozone hole was reported by Copernicus Atmosphere Monitoring Service (CAMS). A similar observation was done by Bassim et al. 2020 (I. Khan, D. Shah & S.S. Shah; Nov 2020).

Will there be any lasting impact of Covid-19 shutdown on wildlife and environment?

Looking at the evolutionary changes of the centuries, the impact of Covid-19 shutdown might just be very small like a blob on the radar.

On the other hand, if the shutdown makes a lasting impact on human activities and cause shifts like working from home, online services related to medical fields, thus leading to lesser traffic, then perhaps the Covid-19 Pandemic quarantine will have a lasting impact on the wildlife and the environment.

CONCLUSION

Investigating changes happening in wildlife and environment during Covid-19 Pandemic can help give insights regarding where humanity is going wrong and can change the scenarios and create better environmental policies to manage industrial toxicity, air and water pollution & harm done to the wildlife and the environment. It helps throw light on what's been missing from the industrial, economic and environmental policies that have been created by the government and all over the globe. It helps make a better world that is environmentally friendly and has a healthy relationship between humans and wildlife. Even though the changes seen and observed during won't last long; these appearances and detection of species and wildlife sightings have been preserved forever in research documents. The hope would be to imagine how wildlife-friendly and environmentally friendly cities would look like and make concrete plans towards a better future for the present and future generations.