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COVID-19 AND IT'S IMPACT ON ENVIRONMENT

Prepared by Shri C.V. Sai Ram, JLA (23034391) and Shri Amar Kumar Prusty, Joint Director (23034992) of Lok Sabha Secretariat under the supervision of Dr. Vatsala Joshi, Director (23034297) and Shri R.C. Tiwari, Joint Secretary (23034430).

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Impact of COVID-19 on Environment

Introduction

On late December 2019 in Wuhan city, in China, an unusual pneumonia was noticed with a link to an animal market that sells poultry, fish and other animals to the public. This event was soon reported to the World Health Organization (WHO). The causal microorganism had been identified as a novel coronavirus that was named COVID-19. COVID-19 soon spread to other parts of the world. The World Health Organization has declared the situation a pandemic.

The COVID-19 pandemic has impacted every aspect of human life and the global economy. The number of new cases and deaths is increasing at an alarming rate with no signs of control yet, making the estimates of its economic and other impacts uncertain. Depending on the level of COVID-19 impact in each country, as well as country-specific situations and capacity, the world's Governments are adopting different levels of interventions, including travel restrictions and lockdown to contain the spread of the highly contagious virus.

COVID-19 and its Effects on Environment

Due to the unusual outbreak of COVID-19, almost every big and small city and village in the affected countries like China, Taiwan, Italy, USA, France, Spain, Turkey, Iran, Germany, S Korea, U.K, India, Australia and many more, is under partial or total lockdown for a long period of time ranging from a few weeks up to a few months.

The major sectors contributing to air pollution are transport, industries, power plants, construction activities, biomass burning, road dust resuspension and residential activities. In addition, certain activities such as operation of DG sets, restaurant, landfill fires, etc. also contribute to air pollution. Under the nationwide lockdown, all transport services – road, air and rail were suspended with exceptions for essential services. Educational institutions,

industrial establishments and hospitality services were also suspended. As a result, air quality improvement has been noted in many towns and cities across the world.

Due to non-functioning of industries, industrial waste emission has decreased to a large extent. Vehicles are hardly found on the roads resulting in almost zero emission of green-house gases and toxic tiny suspended particles to the environment. Due to lesser demand of power in industries, use of fossil fuels or conventional energy sources have been lowered considerably. Ecosystems are being greatly recovered. In many big cities, the inhabitants are experiencing a clear sky for the first time in their lives. The pollution level in tourist spots such as forests, sea beaches, hill areas, etc. is also shrinking largely. Ozone layer has been found to have revived to some extent. The pandemic has displayed its contrasting consequence on human civilization, in the sense that, on one hand, it has caused worldwide panic situation, but created a very positive impact on the world environment on the other.

Environmental Changes witnessed in India during lock down period

The economic shutdown under the Covid-19 pandemic has had two monumental impacts on our environment. It has improved our air and water quality dramatically, and slashed our material consumption, water usage and waste production.

- Concentration of particulate matter (PM) and Nitrogen Dioxide (NO₂) and Sulphur Dioxide (SO₂) emissions reduced significantly in the lockdown period enforced to curb the novel coronavirus disease (COVID-19) outbreak, according to a Central Pollution Control Board (CPCB) analysis of 115 Indian cities. The CPCB monitored the cities between March 16 and April 15, 2020. The air quality index (AQI) of 78 per cent cities was 'good' and 'satisfactory' during lockdown as compared to 44 per cent cities in the pre-lockdown phase. "The drop could be attributed to, restricted vehicle movement, halt on construction activities, less road dust resuspension and curb on industrial activities," according to CPCB.

- Data from the CPCB (Central Pollution Control Board) and the UPPCB (Uttar Pradesh Pollution Control Board) shows that the Ganga's water along its most polluted stretch in Uttar Pradesh is carrying more dissolved oxygen and less nitrates. These conditions are conducive to survival of aquatic life. Its biochemical oxygen demand (BOD) has correspondingly fallen, along with the concentration of total coliform, which is a testament to improved water quality. Similar positive developments have been reported for the Yamuna.
- There are several reports of the Dhauladhar range in Himachal Pradesh again being visible from Jalandhar, which is 200 km away. Citizens have also seen Mt. Kanchenjunga from Siliguri and Mt. Everest from parts of Bihar during the lockdown. That this has happened after 30 years highlights just how long we have battled severe air pollution.
- Most remarkably, the nation-wide lockdown has considerably reduced municipal solid waste (MSW) generation. Pune's daily tonnage of MSW has fallen by 29 per cent, while Chennai's and Nagpur's have dropped by 28 per cent and 25 per cent, respectively. Even in cities like Delhi and Mumbai, one can expect a similar drop owing to a shift in consumer demand and behavioural changes towards sustainable consumption.

Conclusion

Covid-19 and its associated lockdown has given us a rare opportunity to step back and assess our impact on the environment. We are witnessing clean air, water and liveable cities that we have demanded for so long precisely because we have been shut away. Thus, before we resume life as usual, we should make commitment to instill the principles of sustainable development in our social behaviour, life style and public policy making to make our environment clean and sustainable.

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