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8. Environment and Covid-19

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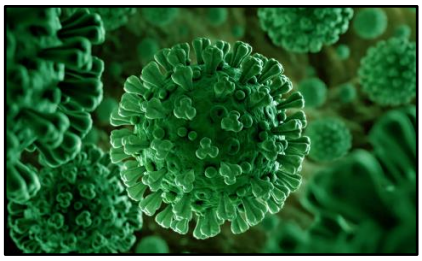

Figure 8.1: COVID-19 Pandemic

***Abstract**:*

*In December 2019 in Wuhan city, in China Hubei province, Corona Virus identified and was named by the World Health Organization as Covid-19**.** The outbreak of Covid-19 pandemic has led to lockdown across the globe. Environmental change due to Corona is one of the biggest challenges of the 21st century. The consequences of the Covid-19 pandemic have successfully recovered the environment to a large extent that should definitely set positive impact on global climate change. The present review article deals with the positive effects of lockdown on environment. Some of the positive effects are metin the decrease of GHG emissions, the fall of fossil fuel consumption, the improved air and water quality. On the other hand, key challenges lie in the significant increase in medical waste, waste management, and environmental pollution. This paper aimed to provide an overview of the indirect effects of Covid-19 on the environment*

Keywords: *Coronavirus, Environment, World Health Organization, climate change, pandemic.*

8.1 Introduction:

Coronavirus disease (COVID-19) is a communicable disease that is spreading very rapidly all over the globe. This disease spreads through human to human transmission which was confirmed by the World Health Organization (WHO) on 20th January 2020. The virus is mainly transmitted through the droplets when it is generated by an infected persons' cough or sneeze. The novel corona virus has no religion and spread beyond cast and creed. It is highly contagious in nature and easily unpredictable. World was never prepared for this kind of pandemic[1-10], where we are in a race of developing a vaccine against its spread.

The primary mode of transmission is from bats to intermediate host to humans. The transmission of Covid-19 can be direct in the form of droplets produced during sneezing, coughing, speaking and accidently inhaling the droplets in a closed proximity of an infected person. The indirect transmission is when virus is deposited on a dead surface like door bells, stairs, vegetables, fruits etc. which may come in contact with rest healthy persons frequently.

From here the virus reaches to eyes, nose and mouth and finally leads to a new corona patient. Covid-19 pandemic affected the whole world very badly. Also, this disease has caused a large number of deaths all over the globe. It belongs to SARS-CoV and now named by the WHO as SARS- CoV-2. This disease is highly communicable which has a tendency to spread within a minute contact with the infected person. The lifetime of this virus over any surface is about 3 days.

Many countries have been severely affected by Covid-19. Lots of life has been lost due to this pandemic. The most common symptoms of Covid-19 are fever, tiredness and dry cough. The Covid-19 disease is responsible for causing respiratory illness. The symptoms of this disease are very common ones such as cough and fever in mild cases but difficulty in breathing in severe cases. The symptoms may be similar to that of cold, fever and shortness of breath. Also, there may be some emergency symptoms such as continuous chest pain, difficult breathing, bluish lips, etc. In such cases, on-the-spotmedical attention is required

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 itscontrasting 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.

As a result, air quality improvement has been noted in many towns and cities across the world. The Covid-19 spread around the world and severely affected the many sectors and related economies. This review article describes the impact of Covid-19 on environment.

8.2 Covid-19 and Environment:

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. Nature always favours and promotes the diversity and coexistence among all the organisms by providing suitable environment to all. Humans should understand the levels and values of biodiversity for the greater interest of the globe. But due to overexploitation of natural resources, increased anthropogenic activities and human centric environmental approach, we are facing global warming and Covid-19 like unprecedented threats.

Biodiversity or biological diversity refers to the existence of a wide variety of plant and animal species in their natural environments or the diversity of plant and animal life in a particular habitat. There is a necessity of ecological balance for widespread biodiversity. Anthropogenic activities and unsustainable agriculture have multiple effects and disturb the ecological balance. The ecological balance is an indispensable need for human survival. Without conserving the biodiversity and minimizing the anthropogenic activities, it is almost impossible to get sustainable development. The sustainable development is directly related with environmental ethics in modern context. The climate change has huge impact on biodiversity. During lok down period, one of the most noticeable improvements is found in the sharp drop of carbon emissions worldwide from February to March 2020 in comparison to the same time period in 2019. The decline of carbon dioxide emissions had a positive effect on air quality with a cleaner atmosphere and less pollution in major cities. There have been observed serious reductions around 50% in the concentrations of air pollutants such as nitrogen oxide in many urban areas around the world. Data from the Central 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 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. The spreading of the pandemic and lockdown measures have contributed to the significant rise in waste. Particularly, the shift in consumer needs with extensive use of online shopping and home delivery services has resulted in an acute increase in household waste. Medical waste has also seen a sharp uptick during this period. Consequently, high pressures on the existing waste management facilities were generated. The destination of the discarded single-use plastic-based masks, water-resistant gloves and other medical waste such as sanitizers is often landfilling and oceans. The impact of those on fauna and flora seems to be wide-rangingas the animals living in both land and sea in search of food could accidentally eat them with devastating consequences for their lives. Additionally, environmental pollution and contaminated areas from medical waste could jeopardize the breeding of many species and subsequently the whole food chain.

8.3 Conclusion:

COVID-19 pandemic has surprised the whole world. As we all expect "COVID 19 to be negative but it is POSITIVE towards environment". The COVID-19 has proved that Nature has provided us with all the resources for leading a beautiful life and she nourishes us like a mother. Although the uncertainty caused by the pandemic due to the unprecedented circumstances, there have been some ray of hope and positive signs that the environment can be temporarily benefitted from the unexpected outcomes and improvements such as the reduced GHG emissions, the reduced consumption of fossil fuels, the better air quality and clearer atmosphere and the improved quality of water.

Figure 8.2: Covid-19 and Environment

8.4 References:

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