

A Review of the Impact of COVID-19 on the Global Warming

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ABSTRACT: *One of the 21st century's major threats is environmental change. In spite of all their efforts over the last few decades to restore nature, humans could only move a few steps forward, not to the degree commendable. The emergence and spread of the current 2019 coronavirus (2019-nCoV) or the severe acute respiratory syndrome coronavirus 2 is presenting the world with a new public health crisis (SARS-CoV-2). The virus originated in bats and was transmitted to humans in December 2019 in Wuhan, Hubei province, China by still unknown intermediate animals. Around 96,000 confirmed coronavirus disease cases have been reported in 2019 (COVID-2019) and 3300 reported deaths to date (05/03/2020). But the effects of the COVID-19 pandemic have, over the last few months, effectively restored the atmosphere to a significant degree, which could certainly have a positive effect on global climate change. It, of course, affects the everyday actions of humans and the ecological environment around them. This review paper discusses the effects of the COVID-19 on the global warming.*

KEYWORDS: *Coronavirus; Economy; Employment; Environment.*

INTRODUCTION

Several corona viruses are known to cause respiratory infections in humans, ranging from the common cold to more serious diseases like Middle East Respiratory Syndrome (MERS) and Extreme Acute Respiratory Syndrome (SARS). In December 2019, in Wuhan, Hubei province, China, a new infectious respiratory disease emerged and was called COVID-19 by the World Health Organization (coronavirus disease 2019). This is due to a newly discovered corona virus type, known as SARS-CoV-22 (severe acute respiratory syndrome coronavirus 2). It is essentially a single RNA virus that is stranded. The viral particles of SARS-CoV-2 are spherical and have mushroom-shaped proteins called spikes protruding from their surface, giving a crown-like appearance to the particle. The spikes attach to human cells and allow the entry of the virus. The novel corona virus spike protein shares a 98 percent sequence identity with the bat coronavirus spike protein. The researchers found that the SARS-CoV-2 spike protein binds to the angiotensin-converting enzyme 2 cellular receptor, which is the entry point in human cells[1]. It has a 10 to 20-fold greater affinity for binding than SARS. The higher binding affinity allows higher transmission from human to human.

Regardless of the degree of virus effect on the citizens of individual nations, it has had a severe impact on global and national economies. There is no border, no religion and the novel corona virus spread beyond cast and creed. In nature, it is extremely infectious and easily unpredictable[2]. This kind of pandemic, where we are in a race to create a vaccine against its spread, has never been planned for the world.

The new COVID-19 seemed to be very infectious and spread globally rapidly. There were a minimum of 52,869 deaths and 10,10,066 confirmed cases of this coronavirus pandemic as of April 03, 2020. Reported cases rose to 46,79,511 on May 18, 2020, with deaths of 3,15,005. These numbers are rapidly changing. There are four stages of transmission of the novel coronavirus, namely stage 1 (imported cases), stage 2 (local transmission), stage 3 (community transmission) and stage 4 (transmission out of control). The term transmission refers to the transmission of microorganisms from one infected individual to another uninfected person, either by direct contact, through droplets, or through the spread of illness among humans Or by indirect touch, such as contamination of surfaces[3]. On the WHO website at <https://www.who.int/emergencies/diseases/novel-coronavirus-2019>, detailed up-to-date information on COVID-19 is available.

The interval between receiving the virus and the beginning of the disease's symptoms is known as the duration of incubation. This varies from 1-14 days for COVID-19, but most commonly about five days. Fever, weakness and dry cough are the most common symptoms of COVID-19. Aches and pains, nasal congestion, runny nose, sore throat or diarrhea can be present in some patients. Typically, these symptoms are mild and begin gradually. Some individuals become sick, but they do not develop any symptoms and do not feel unwell. Most people (about 70%) recover from the disease without special treatment being required. Around 1 out of every 6 individuals who get COVID-19 gets seriously ill and Difficulty in breathing grows. Older people are more likely to develop serious conditions and those with underlying medical issues such as high blood pressure, heart problems or diabetes.

COVID-19 is an intermediate-host zoonotic disease. Though there is no simple awareness of the intermediate source of origin and transmission to humans. The SARS-CoV intermediate host is the palm civet and camel, while pangolin or snakes are the potential intermediate host for SARS-CoV-2. For all three, the reserve host is Bat. Without getting ill, Bat brings too many viruses and about 200 Corona viruses. So the primary transmission mode is from bats to humans to the intermediate host. COVID-19 can be transmitted directly in the form of droplets formed during sneezing, coughing, speaking, and unintentional inhalation of droplets in the vicinity of an infected individual. Droplets are water-holding entities greater than 5µm in diameter and can be caught within a certain range of approximately 1 m by a healthy person. The indirect transmission is when the virus is deposited on a dead surface such as door bells, lift buttons, stairs, vegetables, fruits, etc. that can often come into contact with healthy people who are resting. The virus enters the eyes, nose and mouth from here, and eventually leads to a new patient with corona. Even the contaminated person's fecal matter is discovered to be the transmitter[4]. It can thus spread by fecal-oral transmission from the source. Studies have shown that the virus reaches the respiratory mucosa through the abundance of angiotensin receptor 2 (ACE2) present in the lower respiratory tract, primarily in alveolar type 2 cells[5]. SARS-CoV uses the same receptor.

It has spread rapidly across the world, presenting the entire human population with immense health, economic, environmental and social challenges. The global economy is being seriously affected by the coronavirus outbreak. Through testing and treating patients, quarantining suspicious individuals by touch tracing, limiting large gatherings, maintaining maximum or partial lock down, etc., almost all nations are trying to slow down the spread of the disease. COVID-19 has spread across the globe and has significantly impacted many industries and associated economies. The effect of COVID-19 on global warming is defined

in this review article, and the potential ways in which the disease can be regulated have also been addressed.

COVID-19 AND GLOBAL WARMING

Human beings have steadily been manipulating nature from the beginning of humanity to their own advantage. Industrialization and urbanization were necessary in order to meet the demand of the rising population, and the apparent importance of global climate changes was shown to be detrimental. Human beings began to kill nature in many ways by anthropogenic practices without caring about sustainable development in the quest to drive nature according to their own whims and desire. As an unavoidable result, contamination of the atmosphere has become a great mystery of the present day[6]. It is clear that the spread and burden of different vector-borne infectious diseases, including bacterial and viral diseases, would be altered by environmental contamination.

However, due to the rare outbreak of COVID-19, for a long period of time ranging from a few weeks to a few months, nearly every large and small town and village in the affected countries is under partial or complete lockdown. In order to prevent community dissemination, both local and central administrations ordered the closing of academic institutions and enforced a ban on the free movement of their citizens outside their homes and non-essential enterprises. The numerous gatherings of religious, cultural, social, science, sport, and political mass events such as Hajj, Olympics, etc. are cancelled. Different businesses do not operate and all modes of transport are reduced or cancelled, such as aircraft, rails, buses and private cars.

In the meantime, attempts to reduce the transmission of SARS-CoV-2 by limiting movement have had a remarkable environmental effect. Industrial waste emissions have reduced to a large degree due to the non-functioning and closing of factories. Vehicles are hardly found on highways, contributing to almost zero emissions into the atmosphere of greenhouse gases and harmful small suspended particles. Minimum operation from manufacturing sites, factories and construction industries to boost air quality. As such, according to the Environmental and Energy Research Institute (EESI), aviation emissions, which accounted for 2.4 percent of worldwide CO₂ emissions in 2018, have fallen dramatically.

Air quality has increased by leaps and bounds, with far less vehicular traffic. Several sources have covered how, after strict coronavirus lockdowns were released, the air quality indices of the world's largest metropolitan areas have improved dramatically. Also NASA outer-space satellites display dramatic decreases in air emissions, confirming the finding by Eco Watch that the novel coronavirus pandemic has resulted in a silver lining of reduced air pollution. "The Guardian added, "In China, the world's largest source of carbon, between early February and mid-March, emissions dropped by about 18 percent, a reduction of 250 million tones, equal to more than half the annual output of the UK. A decrease of approximately 390 m tones is expected in Europe. Large declines in the US, where passenger vehicle traffic is the key source of CO₂, can also be predicted to fall by almost 40 percent. China has seen a dramatic reduction in NO_x, CO₂ and various emissions,

In contrast to last year's prices, hydrocarbons during the coronavirus lockout (2020) (2019). The Eastern and Central China regions reported a substantial decrease in NO₂ levels (10-30

percent)[7]. According to, due to lockdowns, there are substantial decreases in air pollution in major cities in the United States of America[8]. The lockdown is a highly sustainable solution to noise and tropospheric and stratospheric pollutant injection reduction. That implies that the coronavirus crisis has so far "triggered the largest ever annual decrease in CO₂ emissions in 2020, more than during any previous economic crisis or war period." While this is promising news, experts claim it may still not be sufficient to achieve the targets of the Paris Agreement to prevent global warming from increasing above 1.5 °C. The use of fossil fuels or traditional energy sources has been substantially lowered due to lower power demand in industries. Ecosystems are being dramatically restored. In several major cities, for the first time in their lives, inhabitants witness a blue sky and clear river water. A number of birds are seen in the towns due to the Covid-19 lockout. In tourist areas such as forests, sea beaches, hills, etc., the level of pollution is also largely decreasing. There could also be a healing ozone layer. The pandemic has demonstrated its opposing effects on human society, in the sense that, on the one hand, it has carried out worldwide devastation, but on the other hand, it has had a rather positive impact on the world climate[9]. The lockout thus serves as a calming dose for climate change, ozone depletion, human health, brown haze, and so on.

CONCLUSION

While humans are a superpower and the corona has proved guns that are capable of destroying the entire world, but even though humans make a mess with nature, nature itself is able to kill humans with this tiny virus that has very normal symptoms such as cold and cough. The best way to avoid and hamper transmission is to cover yourself and via regular washing of hands or using an alcohol-based infection, others also rub, do not touch the lips, and obey expectations of social distance. If anyone has to go out of home due to an urgent job, use of the mask is helpful. Staying at home and operating from home should be practiced during the lockdown. Different businesses do not operate and all modes of transport are reduced or cancelled, such as aircraft, rails, buses and private cars.

Yoga is the best methods for good health which rejuvenates our body in terms of enhancing our immunity system, concentration of mind and confidence levels. Spiritual development is essential for immunity, humanity and positive personality development. There are a number of online yoga classes given by the experts, which is proving the utilization of lockdown time fruitfully. No need to worry about the future because time heals everything. If there are negative impacts, we have various positive things to learn from this. 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, humans should respect and nurture her. Indiscriminate development and overexploitation of natural resources should be minimized at the level of sustainability.

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