THREATS AND IMPACT OF COVID-19 ON ENVIRONMENT: ANALYSIS OF CONTEMPORARY CIRCUMSTANCES

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Abstract

The climate is an important aspect when it comes to the well-being of living things. A primary health concern of the 21st century is the covid-19 pandemic. The outbreak of SARS-CoV-2 in Wuhan, China, in December 2019, and its dissemination to regional countries and countries affected worldwide today is the first recorded pandemic in humanity's history. Not only did the covid-19 pandemic significantly affect certain aspects of human activities, but it has also affected the economic conditions and health organizations tremendously. In the aftermath of the pandemic, lockdowns, isolation, and border closures have improved air quality by reduced traffic and manufacturing. Most of these affirmative ecological impacts are probably transient. However, they can indicate that improvements in lifestyle could provide us with immediate beneficial effects on the environment and show us the value of using methods that

reduce travel, such as web-conferencing. Therefore, this pandemic can encourage lifestyle changes with beneficial effects on the environment that covid-19 is a universal calamity.

Keywords: coronavirus**,** haphazard disposal, environment**,** reduction of recycling, safety equipment, solid waste generation

Introduction

Several Coronavirus disease (COVID-19) pathogens are believed to induce pulmonary diseases in people known to cause respiratory infections in humans; these range from cold or flu to more severe illnesses such as Middle East Respiratory Syndrome (MERS) as well as Extreme Acute Respiratory Syndrome (SARS). In December of 2019, in Wuhan, Hubei province, China, a novel contagious lung disease appeared called the Coronavirus disease (COVID-19) due to a newly found type of coronavirus, recognized as SARS-CoV-22 "severe acute respiratory syndrome coronavirus 2" (Contini & Costabile, 2020).

It is essentially a single strand of an RNA virus. The pathogenic particles of SARS-CoV-2 are circular and have mushroom-shaped proteins known as spikes that protrude from their bases, which gives a crown-like resemblance to the virus. The spikes stick to the cells of human beings and allow the entrance of the virus. The new corona virus's spike protein and the bat's coronavirus's protein share about 100 percent sequence characteristics. Scientists have discovered that the SARS-CoV-2spike protein links with the angiotensin-converting enzyme 2 target cells, where the virus enters human cells. This virus has almost 10-20 times more binding affinity in contrast to SARS. The greater linking affinity induces greater dissemination among people (Aletta & Osborn, 2020).

Irrespective of the degree of the virus's influence on different countries' populations, it has severely affected economic systems nationally and globally. There is no boundary, no religious belief, as the new virus spreads past factions and philosophies. Intrinsically, the virus is highly infectious and readily unstable. The world was not ready for such a pandemic in which we are all in a quest to create an antidote to stop it from spreading (Fareed et al., 2020).

The interval between receiving the pathogen and starting the symptoms is called the period of incubation. It varies from around 1 to 14 days from Coronavirus disease (COVID-19); however, most typically about 5 day time and the frequent indications of

Coronavirus disease are flu, fatigue, and cough. Blocked or runny nose, severe headaches, body pains, and diarrhea are also symptoms found in people who have contracted the virus. These symptoms, however, are not severe and start slowly (Jones et al., 2020).

There is no simple understanding of the intermediary place of entry of the virus and its transfer. The SARS-CoV intermediate host is the palm civet and camel, while pangolin or snakes are the potential hosts for SARs-CoV-2. For all the 3, the bat is the 'reserve' host. The bat alone contains about 200 different kinds of coronaviruses without being ill itself. The primary transmission mode is from bats to intermediate hosts to human beings. Coronavirus disease (COVID-19) can be contracted through coming directly in contact with the droplets formed after sneezing, speaking, and involuntarily ingesting them or being near the infected person. The droplets hold water and have a greater diameter than 5μm that a person of good health can entrap within a range of 1 m (Breslin et al., 2020).

The virus may spread indirectly because of its deposition on surfaces such as fruits, vegetables, stairways, and doorbells, often contacting people of good health. The virus then enters the body through the skin, nose, and mouth, which eventually brings about a new patient of Coronavirus disease (COVID-19). Even the feces of a person who has coronavirus disease (COVID-19) is reported to be a source of infection. So the virus can be transmitted by fecal-oral transmission.

Background

The World Health Organization has issued guidelines on modifying community health and social initiatives to prepare for the subsequent stage of Coronavirus disease. Several regimes have proposed that discovery of antibodies of SARS-CoV-2, the pathogen triggers it, could act as a foundation for immunity passport which can allow people to go to places such as work believing they are safe from getting infected again. There is no proof that people who have had the virus once have produced antibodies that protect them from getting re-infected (Bherwani et al., 2020).

The World Health Organization is still reviewing how the antibody response to the CoV-2 virus. Several studies indicated that people who had Coronavirus disease (COVID-19) now have antibodies. However, some of the patients have fewer concentrations of these antibodies in their bloodstreams, indicating that it will be hard for cellular immunity to recover. There is very little proof of the effectiveness of antibody-mediated immunity to assure the accuracy of an immunity passport or risk-free certificate

at this stage in the global epidemic. Individuals who assume that just because they have had been infected with the virus once and may not get re-infected tend to ignore public health services' advice. Therefore, these positive certificates may lead to a risk of more transmission of the virus (Gautam, 2020).

There have been no records of any commercially licensed medicines or inoculations proven to be 100% effective in eradicating the virus so far. The virus has spread exponentially across the globe, due to which the entire human race is facing extreme health, financial, ecological, and societal challenges. The Coronavirus disease (COVID-19) pandemic is seriously affecting the economy of the world. Nearly all countries try their best to control the virus either by taking tests, quarantining suspicious people by tracing their contacts, placing banns on huge meetings, or enforcing absolute or incomplete lockdowns. The coronavirus has expanded globally and has seriously influenced several industries as well as associated economies. This paper explains how the virus has influenced climate and culture, includes economies, and explores the potential methods through which the virus can be managed (Sheykhi et al., 2020). In the study the main argument is to find out, w**hat are the threats and impact of Coronavirus disease on the environment?**

The research was based upon literature review method (Komba & Lwoga, 2020). The results and findings are also based upon the objectives and research questions that are explained in the initial part. (Petticrew & Roberts, 2006). The data and other information was also analyzed during the study (Pawson et al., 2005). These information's and results are considered in the conclusion part of this study (Rahi, 2017). During the whole process research ethics are also considered and taken care of (Victor, 2008).

Negative Effects of Covid-19

1. **Environmental Effects**

Rise in bio-medical garbage production since Coronavirus disease (COVID-19), medical garbage production has risen worldwide, which presents a significant challenge to people's health and the atmosphere. Various contagious and biomedical trash is created from hospitals to collect a sample of supposed Coronavirus disease (COVID-19) patients' identification, cure of a significant number of patients, and sterilization purposes (Somani et al., 2020; Zambrano-Monserrate et al., 2020).

For example, all over the time of the plague, Wuhan province in China manufactured over two hundred and forty metric tons of medical garbage daily (Saadat et

al., 2020), which is almost one hundred and ninety million tonnes greater than the average time (Somani et al., 2020; Zambrano-Monserrate et al., 2020). As a result of Coronavirus disease (COVID-19), nearly two hundred and six million tonnes of medical garbage are produced daily in Dhaka, Bangladesh's capital (Rahman et al., 2020). Comparable rises were seen in other capitals, namely Manila, Kuala Lumpur, Hanoi, and Bangkok, generating 154-280 million tonnes of additional medical trash daily than before the Coronavirus disease (COVID-19) (ADB, 2020).

Such a sharp increase and satisfactory control of dangerous trash have become a significant problem for domestic waste management officials. As shown by a new study, SARS-CoV-2 diseases are stated to occur on a daily paper and plastics and stainless steel for about three days (Van-Doremalen et al., 2020). To minimize more pollution and environmental contamination that is nowadays internationally an issue of apprehension, the trash produced from hospitals must therefore be suitably controlled.

2. **Safety Equipment Use and Haphazard Disposal**

People are currently utilizing face masks, hand gloves, and other protective gear to safeguard against biological contagion, raising the quantity of healthcare trash. In the USA, it is stated that the quantity of trash has increased because of greater utilization of Personal Protection Equipment (PPE) at the local scale (Calma, 2020). The making and utilization of plastic-made PPE have risen universally since the occurrence of Coronavirus disease (COVID-19) (Singh et al., 2020). For example, since February 2020, China has raised therapeutic masks' daily manufacture to about fifteen million that is an all-time high (Fadare and Okoffo, 2020).

Nevertheless, most people discard trashes in vacant plots and, in few instances, with domestic trash due to ignorance concerning transmissible waste management (Rahman et al., 2020). This waste's disorganized clearance creates water blockage and deteriorates ecological contamination (Singh et al., 2020; Zambrano-Monserrate et al., 2020).

The probable reason of micro-plastic strands in the air is face masks and another plastic-made protecting kit (Fadare and Okoffo, 2020). For that, Polypropylene is frequently utilized to manufacture N-95 masks and Tyvek for protecting outfits, gloves, and medical face protections that could continue extensively and discharge dioxin and harmful ingredients into the air (Singh et al., 2020). While analysts and responsible officials suggest that domestic carbon-based trash and plastic-made protecting kit be appropriately disposed of and separated, the combining of these trashes increases the

risks of spread of diseases and contact of waste employees to the disease (Ma et al., 2020; Somani e et al., 2020; Singh et al., 2020).

3. Municipal Solid Waste Generation and Reduction of Recycling

Increasing urban waste production has a significant impact on the surroundings, namely air, water, and soil contamination (Islam & Huda, 2016'; Islam et al., 2016). In several nations, confinement procedures have contributed to a rise in the need for online grocery shopping for home delivery due to the Coronavirus disease (COVID-19) that has consequently increased the quantity of domestic waste from transported package resources (Somani et al., 2020; Zambrano-Monserrate et al., 2020).

Waste recycling, nevertheless, is an efficient method of avoiding trash, saving fuel, and conservation of natural resources (Ma et al., 2019). However, several nations have delayed recycling trash to decrease infectious infections due to Coronavirus disease (COVID-19). For example, in several districts, the USA limited reprocessing initiatives, as the administration was worried about the risks of this disease disseminating into recycling services (Somani et al., 2020). Infested people were also prohibited from categorization their unwanted material in the UK, Italy, and other European countries (Zambrano-Monserrate et al., 2020). Generally, the rise in land-fill and environmental pollution worldwide is attributed to disruptions in everyday urban trash management, waste retrieval, and recycling.

4. Other Effects on the Environment

Of late, massive amounts of purifiers have been used to destroy the "SARS-CoV-2" bugs in highways, industrial, and built-up areas. This widespread usage of decontaminators could destroy non-directed beneficial organisms that could contribute to environmental imbalances (Islam & Bhuiyan, 2016). As well, "SARS-CoV-2" disease has been found in the excrement of Coronavirus disease infected and from urban wastewater in numerous nations that included nations from Asia, Europe, Australia as well as the United (Ahmed et al., 2020; Nghiem et al., 2020; Mallapaty, 2020).

Therefore, further wastewater treatment steps are required, which is difficult for third world countries, for example, Bangladesh, where untreated urban wastewater is emptied into surrounding marine reservoirs and watercourses (Islam & Azam, 2015; Rahman & Islam, 2016). To check the SARS-CoV-2 germs dispersing through wastewater, China has too developed the decontamination process. However, excessive

chlorine use in water can lead to detrimental by-products (Zambrano-Monserrate et al., 2020).

i. **Energy demand**

Energy demands are judged as vital aspects of financial development to implement economic functions by handling the supply of energy and meet demand. The excellent energy use in homes and companies raises their requirements immensely, causing severe ecological apprehensions. The Coronavirus disease (COVID-19) initiatives continue to increase energy requirements in the healthcare field, mainly to solve healthcare problems (Hosseini, 2020; Klemes et al., 2020).

ii. **Food consumption**

Several factors are not constrained by the Coronavirus disease (COVID-19). However, the pandemic steps increase the requirement for food products; namely, Coronavirus disease (COVID-19) raises the stress level amongst people that could raise the passion for food consumption; create fear among community members regarding food scarcities, causing a rise in food storage for use, and recreational individuals might get more food demand to survive (Jribi et al., 2020).

iii. **Changes in food prices**

Coronavirus disease (COVID-19) measures establish dangerous circumstances that have transformed into rising food scarcity for use that contribute to a rise in food inflation worldwide. As a replacement for calculating fluctuations in food prices globally, analysts have employed the consumer price index (Jribi et al., 2020).

Lessons from Coronavirus Disease (Covid-19) Induced Lockdown

This pandemic is a predominantly worldwide health epidemic with significant well-being and financial ramifications. It has also had beneficial environmental impacts that could function as an indicator and motivation for potential improvements in manners and lead to positive ecological alterations. The present worldwide Coronavirus disease (COVID-19) has driven people to see a new future introspectively and envision it.

The lockdowns demonstrate that it is promising to have a planet with a cleaner air. The flow overall Coronavirus sickness (COVID-19) uncovers a reasonable connection between the level of outflows and major financial endeavors, like assembling exercises, transportation, energy age, and limited scope metropolitan obstruction. As the crown flare-up stops, this shows us that an environmentally friendly power based

framework should be carried out. Without contamination control, the climate would be corrupted by byproducts coming about because of utilization, warming, development, mining, preparing, transportation, and other human exercises.

Hence, to manage ecological pollution, appropriate measures must be taken. The lockdown provides optimism that excessive intervention by the people for the environment could be reduced. Governments and people must implement the following recommended methods to produce meaningful improvements in the environment:

1. Vehicle inspection and repair.
2. Effective mechanism for public transit.
3. Modernizing the handling of traffic.
4. Utilizing environmentally-friendly goods.
5. Minimization of the application of "chlorofluorocarbons" (CFCs).
6. Espousal of sources of renewable energy.
7. Supporting dump re-use and recycling.
8. Reducing insecticide usage.
9. Consuming the minimum quantity of water accessible.
10. Plantation of trees.
11. Deforestation Avoidance.
12. Sewage management and its disposal affect the environment through solid, suspended, and inorganic materials.
13. Usage of "Ecosan toilets" where no water is a need and synthetic manures are transformed into human excrement.

Prevention and Control from of Coronavirus

Coronavirus is a worldwide danger requiring an international obligation to provide reliable data to protect human lives from new infections. Civic health and disease prevention activities are urgently required to restrict the worldwide outbreak of the disease to reduce the damage associated with Coronavirus disease (COVID-19). Remaining with family and online working standards must be observed throughout the lockout. As physical activities increase immunity, it must be every day too.

Coronavirus disease (COVID-19) spreads by direct interaction with the people. Hence a vital means to protect public health is to check diffusion restrictions in crowded meetings. The growth of lung ailments in mass congregations is a critical public health issue, with the prospective for these communicable diseases to be distributed.

To decrease the overall risks of the spread of Coronavirus disease (COVID-19), specific preventive steps have been suggested by the World Health Organization. For example, to avoid intimate interaction with patients experiencing severe lung diseases, frequent washing of hands with cleanser and water or hand disinfectant, especially following direct interaction with ill people or their atmosphere, keeping cough decorum, and evading vulnerable contacts with isolated people. It is highly recommended that individuals stop regular contact of the face and clean their hands in flowing water for half a minute. The best method to avoid disease is social isolation and segregation or isolation.

The governments of various states have suspended all forms of religious, social, educational, technical, sports, and political meeting activities in various places of the world. Mass media and data technology provides the world with substantial backing for the avoidance and monitoring of the occurrence of Coronavirus disease (COVID-19). Hence, the primary precautionary technique for Coronavirus disease (COVID-19) may be to limit mass gatherings. Nearly all regimes take all preventive measures, and ample funds for their countries are approved. In research laboratory tests, anti-viral medicines such as chloroquine and hydroxychloroquine were shown to be successful against Coronavirus disease (COVID-19) (Rolain et al., 2007; World Health Organization, 2020).

New research showed that to control Coronavirus disease (COVID-19) in vitro (Wang et al., 2020a; Wang et al., 2020b), Remdesivir and Chloroquine were highly successful. As SARS-CoV-2 is an RNA virus, the most promising alternative may be an effective vaccine against other RNA viruses such as measles, polio, encephalitis B, and influenza(Liu et al., 2020; Lu, 2020). Science will continue to play an essential role in developing entirely effective drugs or vaccines to prevent and monitor Coronavirus disease (COVID-19) infections.

Conclusion and Policy Implications

The study explored the effects on the climate and humanity of the Coronavirus disease (COVID-19) steps. As a result of the nationwide industry lockdown, Coronavirus disease (COVID-19) initiatives dramatically reduce carbon discharge, whereas awareness spillovers aid to mitigate the growth of the epidemic using word-of-mouth movements. Moreover, by reducing the per capita income growth rate worldwide, the new disease causes a more significant global recession. Increased energy demands and compactness of the population are causing the high discharge of carbon worldwide.

The effects of the Coronavirus disease (COVID-19) interventions are confirmed mainly by the restriction of vulnerable instances of Coronavirus disease (COVID-19) that

further enhance the atmosphere's efficiency and increase the possibility of fertility cases worldwide. The message from an epidemic that eliminates large carbon discharge through the closing of non-essential industrial activities must be studied.

There is a vital requirement for non-critical industries to be established and dependent on imports instead of import substitutes, potentially discharging less carbon dioxide into the air. The green waste recycling systems are needed (Klemes et al., 2020), defensible quantity and improvement (Sarkis et al., 2020), efficient carbon rating (Burke & Bowen, 2020), and clean performances (Bagnera & Steinberg, 2020) are believed to be beneficial to facilitate the global viable ecological program. Food scarcity issues related to foodstuff making and costs are immense, requiring close overseeing and strategic methods to control the population's growth by family planning throughout the epidemic and its aftereffects (Reshadat et al., 2018; Riley et al., 2020).

Social media operations and print media could employ the awareness of surplus healthcare interventions as a tactical means to extend precautionary steps against the epidemic and its cause of spread. The objective accounts and firm confidence in reducing the epidemic provide vital awareness to sustain healthcare organizations. The requirement for e-networking and social networking is desired to minimize vulnerable cases and fatality incidents (Chan et al., 2020).

It is considered that the increase in requirement for electricity in the healthcare field requires well-organized scheduling to offer a hassle-free movement of electricity distribution and a stable energy demand and supply disparity using other renewable energy resources. Mitigating harmful environmental issues by advancing financial activities to minimize epidemic severity globally would be beneficial (Hosseini, 2020).

The economic hubs are primarily influenced by the closing of industries and companies to minimize Coronavirus disease (COVID-19). Nevertheless, while all governments are backed by some expansionary reorganization in the economic field, the Global Financial Index reveals negative growth patterns, causing a new worldwide recession.

Easy accessibility to credits, loan payments, quick loan reimbursement timetable, low-interest rate charges, low bank rebate rates, credit service creation, and open market functions are just some typical resources that help financial activities. The requirement to leverage business capital in neglected industries, like the small industry in a few markets, "small and medium-sized enterprises" (SMEs), marine fisheries, mineral resources, steel,

and water and sanitation fields, are some case that could be covered throughout an epidemic (Baker et al., 2020).

Coronavirus interventions boost the indicator of the quality of air and the probability of rising fertility through an epidemic. Working online, markets and closure of companies, and spare time would raise the family worldwide. All over an epidemic, the populace reduction techniques might be activated side-by-side, as it might be an increased reason for a long break at family for both spouses, which could lead to extraordinary productiveness rates (Bahamondes & Makuch 2020).

Furthermore, the Coronavirus steps raise the universal risks of hunger and precarious vocations, thus contributing to high potency incidents. Providing employment prospects, social security systems, low community emergency aid packets, virtual education services, and adequate therapy could minimize the rate of poverty and fertility all over the nations (Anser et al., 2020).

These initiatives will primarily promote the reduction of cases of Coronavirus disease (COVID-19) and fatalities rates, even though such steps offer legislators and government functionaries with reflection to create strategies globally more people-centered, ecologically sustainable, and socially comprehensive.

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