

Advances in Geographical and Environmental Sciences

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Prabuddh Kumar Mishra *Editors*

# Sacred Landscapes, Indigenous Knowledge, and Ethno-culture in Natural Resource Management

Understanding Multiple Perspectives  
of Nature Conservation



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# Chapter 18

## Assessment of Positive Impacts of Covid-19: Socio-Cultural and Environmental Perspectives



Fareena Ruzaik and Humaisara Ghazy

**Abstract** Covid-19, also known as Corona Virus, has spread worldwide and infected most people around the globe. As a result, many states imposed lockdowns, curfews, travel restrictions, and many more pandemic prevention measures to control the infection. Therefore, there was a massive decline in economics, education, and many other fields. On the other hand, Covid-19 prevention measures have created many opportunities in online platforms, and improved environmental qualities and social and economic status in considerable ways. Inconsequent, this article is aimed at assessing the positive impacts of COVID-19 from sociocultural and environmental perspectives. To explore this, qualitative and quantitative approaches were adopted for this study. All the data collection methods were based on an international literature review and secondary sources, which were published after 2020. The literature review mainly focused on identifying and studying the positive effects of the environment, socio-culture, and economy in the Covid-19 pandemic. The study reveals a considerable positive impact of Covid-19, which changed the world and created the new normal as a liveable period for many people and the whole improved world in many sources. Further, this study found many research findings say that the lower rate of communicable diseases including sexually transmitted infections during the lockdown. The crisis has caused people to question their priorities and how much they are willing to give up to protect their lives and those of their loved ones. Although there are significant COVID-19 waste experiences in the current era (2020), it didn't create a high decline in many essential aspects. Also, online platforms gave strength to many fields to move further.

**Keywords** Covid-19 \* Positive impacts \* Socio-cultural \* Environment

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## 18.1 Introduction

The Coronavirus, also known as Covid-19, was initially discovered in Wuhan, China, in December 2019. Since then, the virus has expanded rapidly across boundaries and impacted people worldwide. Consequently, the World Health Organization, also known as WHO, announced the Covid-19 pandemic on March 11, 2020. According to the World Health Organization, the fatality rate of Covid-19 is expected to be lower than that of the Severe Acute Respiratory Syndrome (SARS-2003), Middle East Respiratory Syndrome (MERS-2012), or the Zika virus outbreak in 2015, but greater than that of seasonal flu (Ruzaik and Begam 2021).

According to world scientists/doctors and academics, the pendulum change in human behaviour in reaction to the Covid-19 pandemic has several significant and unanticipated good side consequences. For example, there are fewer accidents, considerable crime such as street crimes and robberies is decreasing, environmental pollution is decreasing, and some infectious illnesses are receding from hospital emergency rooms. Covid-19 has had more good benefits in day-to-day human behaviour than in sickness. Covid-19, for example, has made all individuals aware of self-healthy measures. Children and their families follow recommendations on hand washing, personal cleanliness, and other preventive actions such as staying at home when sick, washing, and covering their face while coughing and sneezing with their hands. Global economic activity was halted as a result of Covid-19's shutdown. On the other side, online or e-economic activities have become popular, allowing many people to generate money online. As a result, compared to the pre-Covid-19 condition, the post-Covid-19 situation has had a significant positive impact on human existence. NASA satellites have reported considerable decreases in air pollution in key cities worldwide after the Covid-19 shutdown (Mathewson 2020).

The phrase “A pandemic is the best method to promote environmental health—Burke” received a boost as a response to this. As a result, the purpose of this article was to demonstrate the favourable influence of Covid-19.

Although many argue Covid-19 is the worst era in human life, it has also improved human lifestyle in a modern way. In that sense, this paper focuses on the beneficial environmental, sociocultural, and economic benefits of the Covid-19 epidemic.

## 18.2 Methodology

Qualitative and quantitative approaches were adopted in this research. All the data collection methods were based on an international literature review and the use of secondary sources, which were published after 2020. The literature review was mainly focused on identifying and studying the positive effects related to the environment, socio-culture, and economics in the Covid-19 pandemic.

## 18.3 Results and Discussion

### 18.3.1 *Positive Impacts on the Environment*

From a general perspective, it is possible to see that Covid-19 has safe the zones of air, water, and biodiversity from repaid degradation. In that sense, this study focuses on environmental positive effects in the below manner.

#### **Meteorological Positive Effects**

Air pollution has decreased as a result of travel restrictions, factory lockdowns, and factory closures, which are significant actors in mixing GHG in the air. To halt the spread of Covid-19, governments throughout the world instituted travel restrictions and lockdowns in 2019. As a result, the world's atmospheric chemists, like the general population, were anxiously remaining at home and attempting to manage their houses while working remotely. However, several atmospheric chemists recognized an opportunity on the rise. Satellite photographs show tremendous improvements in air quality in every country affected by the outbreak as industry and transportation shut down. For example, the earliest indicators may be traced back to China, which implemented a rigorous lockdown in late January 2020. For almost three weeks, many of the residents were unable to leave their homes. For example, Marshall Burke (2020), a Stanford University environmental economist, estimated in a blog post that improving air quality in China for two months might save the lives of 4000 children under the age of five and 73,000 people over the age of 70 (Nelson 2020).

And direct air pollution emissions fell at a rate and magnitude never seen before. When the epidemic struck, city streets were deafeningly silent. As passenger traffic decreased, transportation-related pollutants, including carbon dioxide and nitrogen dioxide also reduced accordingly. Gas-powered cars release greenhouse gases such as CO<sub>2</sub>, which contributes significantly to global warming, and NO<sub>2</sub>, which contributes considerably to atmospheric reactions that produce ozone and fine particles, both of which are harmful to human health as combustion byproducts. According to Jocelyn Turnbull, traffic volume in New Zealand dropped by around 80% during the lockdowns. According to the data, New Zealand's fossil fuel CO<sub>2</sub> emissions have decreased at the same rate as traffic, by approximately 80%. When it comes to NO<sub>2</sub>, traffic is the leading cause of NO<sub>2</sub> in most regions. According to CAMSA satellite data, NO<sub>2</sub> levels in eastern China have decreased by around 65 percent from the early days of 2019. This drop was mostly due to a reduction in traffic since nearly no one in China could go outdoors for two to three weeks (Nelson 2020).

When it comes to the environment, the Ozone layer, which filters damaging UV radiation and is necessary for life on Earth, must be considered. The new findings contradict ground-level findings from prior studies in crowded cities, which found that ozone concentrations increased by 10 to 30% in some metropolitan areas when nitrogen oxides fell during quarantines. This is due to the complex chemistry of ozone and other pollutants. Because nitrogen oxides may deplete ozone in highly polluted air, reducing nitrogen oxides can result in an increase in ozone, which is incongruent.

According to recent research, ozone levels at 1–8 km (0.6–5 miles) above Earth's surface declined by 7% on average over the Northern Hemisphere during the spring and summer of 2020. The decline is likely explained by limited movement due to COVID-19 quarantines, according to the article, which was published in *Geophysical Research Letters*, AGU's magazine for high-impact, short-format papers with urgent repercussions across all Earth and space disciplines.

### **Ecological Positive Effects**

The containment of the Covid-19 pandemic's spread, as well as constraints on business activity movement and the industrial sector, have had a substantial positive influence on waste management. Wastages that are revealed by manufacturing factories and mixed with water and soil have decreased in comparison to pre-2019 due to the lockout and closing of several industries.

Food waste, which emits the foulest odors and contributes to pollution, was also significantly reduced. After the covid-19 limitations, for example, it was possible to witness empty public dustbins and less trash around local hotels. As per the results which were found in a recent study done by a group of social scientists from the University of Ruhuna, around 46% of families are aware that they are squandering food and commodities.

Gardening has long been seen as a calming recreational activity that might yield more incredible personal benefits. Gardening might be a pleasant family-inclusive endeavor to pursue during the Covid-19 era when many individuals work at home, and practically all pupils learn at home. Another favorable effect of covid-19 may be noticed in the growth of new home gardens, as well as the production of vegetables and food products. During the Covid-19 period, for example, Sri Lankan officials and non-governmental groups, as well as individuals, promoted home gardening to the general people. Several public people were observed growing vegetables, fruit, trees, and herbs, including politicians, cricketers, and social influencers. According to Perera, secretary of the Ministry of Agriculture, 75 percent of Sri Lankans want to continue living their lives as they did before Covid-19 imposed restrictions, including lockdown. Many people moved to their houses and rooftop gardening. The Ministry of Agriculture in Sri Lanka has launched a program called "Saubhagya Gewatta" to promote home gardening (prosperous home gardens). The program's goal was to create one million home gardens, and by 2020, it had delivered 1.9 million seed packets (Levenston 2020). Furthermore, surveys from throughout the world suggest that individuals have taken up hobbies, with home gardening being one of the most popular.

Humans are part of an interconnected web of life, an interrelated system. When one component is changed—or removed—it affects the entire system, which might have negative repercussions. The travel limitations imposed by the Covid-19 shutdown made getting in and out of the protected regions difficult for loggers and poachers who went a considerable way to hunt in the park. This enhances the likelihood of wild animals returning to their natural environment unaffected by human or hunting activities. A new flush of animals and flora will emerge as a result of less anthropogenic stress, replenishing the natural ecosystem. Covid-19, for example,

increased conservation in Nepal's protected regions. This evolution was aided by reduced automobile mobility and human pressures. To relieve the undue human burden on China's protected and conserved zones, a temporary limit on commerce and bush meat consumption was enforced in February 2020. COVID-19 has also brought attention to the fact that diminishing biodiversity undermines the ecology that supports human life. The more biodiversity an ecosystem grows, the more difficult it is for a single virus to spread quickly or establish dominance; nonetheless, loss of biodiversity permits viruses to transmit from animals to people. According to anecdotal evidence, human stress on wild animals has lessened. Travel restrictions and park closures have lowered visitor numbers in protected regions, reducing stress on sensitive species and trampling strain on popular paths. This resulted in increased biodiversity.

### **Hydrological Positive Effects**

Water is necessary for all living things. However, the twenty-first century may be remembered as one of the most polluted years in history. Travel restrictions and the global shutdown of Covid-19, on the other hand, helped to improve water quality across the world. During the shutdown, the water quality of India's main tropical river, the Damodar, improved by 54.54 percent, indicating a considerable improvement in river water quality. As a result of the little mixing of harmful metals in river water, the aquatic environment faces a low ecological danger (Chakraborty et al. 2021).

Additionally, national lockdowns and social distancing measure limited recreational and commercial activity on beaches and in ports, limiting direct and indirect pollution such as plastics, petroleum leakage, and microbial burdens. As a result, the water quality at the beach has temporarily improved. For example, the water quality of beaches like Salinas and Manta may be compared before and after the Covid-19 outbreak.

On the other hand, several studies claim that Covid-19 lockdowns increased the quality of lake water. Indeed, it has been well documented in the literature for a long time that increased industrialization and human activities in the last two decades have contaminated the hydrosphere in a variety of ways. Since industries and people's activities were prohibited for a month in many regions of the planet, there have been some improvements in the contaminated hydrosphere's current state. For example, the concentration of suspended particular matter (SPM) in Vembanad Lake pollution was reduced by 15.9%. (Yunus and Hijioka 2020).

## ***18.3.2 Positive Impacts on Socio-Cultural***

### **Reductions in Crime**

The COVID-19 outbreak is putting a significant strain on the world and causing havoc in people's lives. Enforced quarantine, curfews and lockdowns, travel restrictions, and limits on economic activity and public life are among the unusual measures taken

to stem the infection curve. While these enforcement measures and enhanced police presence at the borders and on the streets appear to deter crime, they reduce smoking, drinking, social crimes, and unlawful affairs among people.

### **Reduce in Smoking**

When it comes to COVID-19, smokers have a 50% higher risk of developing severe disease and death. “The great thing smokers can do to reduce their risk of contracting this coronavirus, as well as the risk of cancer, heart disease, and respiratory disorders, is to quit smoking,” said WHO Director-General Dr. Tedros Adhanom Ghebreyesus. According to WHO research, 5.5 percent of the whole sample stopped or decreased smoking during the lockout (WHO 2021).

#### **18.3.2.1 Reduction in Alcohol**

When looking at the drop in alcohol users, it is clear that the COVID-19 pandemic lockdown had a substantial impact on alcohol consumption. Young and adult people had quite diverse responses to the lockout in terms of alcohol use. Young individuals reported drinking less than mature adults 44 percent of the time, compared to just 7% of older adults (Steffen 2021).

#### **18.3.2.2 Mobility Decline**

During the nationwide shutdown, Mexico’s mobility decreased by 70%. Because mobility is reduced, there may be fewer opportunities for victim-to-criminal contacts, resulting in lower crime rates. According to several studies conducted in different cities across the United States, robbery, theft, and burglary have all dropped since the pandemic began. Using data from 25 large cities, Abrams found that crime had fallen by approximately 35 percent, with the most significant reductions in theft and residential burglaries. According to Campedelli et al., burglaries and robberies have decreased in around 13% of Chicago neighborhoods. On the other side, during the epidemic, drug offenses in the United States have decreased significantly. Abrams investigates a decrease in drug-related offenses. Similarly, Campedelli et al. report a 45 percent decline in narcotics-related charges in Chicago.

### **Hidden Personal Reflections**

Because many individuals found it difficult to stay productive throughout the epidemic, particularly during the stay-at-home mandate, many people all around the world have produced some spectacular results. There was more room for fresh experiences and personal thoughts on what is important in life, to observe nature and relationships more consciously, etc., thanks to the unexpected ‘extra time’ in the lockdown holiday, which offered a greater opportunity to expose latent genius in individuals. Furthermore, social media provided several additional options to make



the quarantine time a positive one. This can be viewed as a beneficial effect on covid-19.

### **Behavioral Changes**

Following the COVID-19 pandemic, governments all over the world compelled their citizens to participate in preventative health practices to reduce the virus's adequate reproduction numbers. During the COVID-19 outbreak, most people were forced to live within the confines of the lockdown, which left them alone with their fears, uncertainty, and loneliness. Many studies have shown that following Covid-19 health advice such as washing hands often, maintaining social distancing, eating healthy immunity foods, exercising regularly, using sanitizer, and wearing a mask may result in substantial attitude improvements (Bussing et al. 2020).

### **Consumption of Hygiene Food Culture**

As a result of Covid-19's widespread impact on the human immune system, most individuals have altered their daily eating habits and included more hygienic foods in their diets. Turmeric, for example, has been popular in the Covid-19 epidemic owing to its antioxidant and anti-inflammatory properties, which aid in disease resistance. According to official estimates, Sri Lankans used roughly 7,500 tons of turmeric in 2019, but the country only farmed 2,000 tons, implying that the government is heavily reliant on imports (Sridharan 2020).

### **Improvement in Social Solidarity**

Social solidarity is the uniting force that contributes to bridging the expanding socio-economic division caused by the pandemic. In fact, in long-polarized and personalized cultures, the collective threat presented by COVID-19 has necessitated an unprecedented amount of social unity. Apart from "symbolic solidarity" meetings, solidarity implies sharing responsibilities for the less fortunate or underprivileged. In many sections of the nation, people have gotten more involved in social solidarity.

For example, members of Odisha's 7127 women Self Help Groups (SHGs) donated over 15.6 million meals to the poor, and 1242 SHGs made about 4 million masks while maintaining social distancing throughout the lockdown. In Kerala, communal kitchens serve 280,000 meal packages every day. In Covid-19, a considerable number of food packages were given out for free to the less fortunate, including migrants, homeless people, and the impoverished. (D' Costa 2020; Press Trust of India 2020). Inequality and prejudice have lessened as a result of increased social solidarity. For example, during the crisis, Muslim Sinhala Tamil Catholics aided one another regardless of caste or religious affiliation (Mishra et al. 2020). The involvement of mostly young people in various social services to assist vulnerable individuals demonstrates a high level of social solidarity.

### **Online Education**

Online schooling had a beneficial effect on Covid-19. Free online education is popular in the modern period and helps students save money on their education. Online free libraries and online free courses, for example, have been quite beneficial. Aside from

that, the usage of technology in educational settings has made the generation smarter and decreased paper use. Using various digital gadgets during the online study time enhanced technical understanding.

### **Improvements in Medical Technology**

Even though the COVID-19 outbreak has imposed unprecedented stresses on modern healthcare systems, the industry's response has demonstrated its resilience and ability to quickly bring innovative solutions to market. Vaccine companies, for example, must deal with convoluted supply chains, new means of communication with healthcare professionals, a primarily remote workforce, and clinical trial interruption (Jansen et al. 2020). This gave birth to a new trend in the medical sector. Similarly, hospitals are caring for COVID-19 patients while maintaining continuity of care for others, often despite weakened manpower, supply, and equipment constraints and, in certain cases, increased budgetary pressures.

## ***18.3.3 Positive Impacts on Economic***

### **Improvements in E-Commerce**

The practice of buying and selling products and services via the Internet in a virtual marketplace is referred to as e-commerce. The rising phenomenon has made everyday life simpler for a significant number of people all over the world, as well as providing alternative revenue and commercial chances for a variety of enterprises. The e-Commerce model is used by some of the world's most successful companies to serve millions of customers while also handling complex storage, shipping, order fulfillment, and logistic services over land and sea. With the rapid breakout of the Covid-19 pandemic in the year 2020, business-to-business e-commerce reached a critical point. COVID-19, the Coronavirus, has instilled in people a fear of crowds, causing them to limit their interactions to a maximum of 10 people who keep a significant physical distance. In the process, the COVID-19 pandemic has altered worldwide purchasing and consumption habits, paving the door for simple internet business. Many people viewed this as a chance to grow their company in the new normal. As a result, online enterprises grew throughout the time of covid-19.

### **Improvements in Distance Learning**

On the other hand, another positive impact of covid-19 is the advance of online classes, which made a positive impact on teachers' earnings and students' learning. These online classes help to continue students' education as well as to manage teachers' financial status.

### **Self-Gardening**

The main crisis in the quarantine period was low access to food. So self-gardening became a trend and covered self-need and saved money. For instance, during the

lockdown period, Sri Lankan government encourages every citizen to make gardens in their home for their needs, as the lockdown conditions created low access to the market and expected it will reduce food shortages as well as protect individual economic status.

### **Work from Home**

Many people used to believe that working in an office was the safest and most effective way to run a business. Working from home is getting more and more widespread all around the world. Teleworking has become the standard for many individuals, and by May 2020, 76% of organizations will need all or most employees to work from home (McKinsey 2020). Before the outbreak, just 5.4 percent of the EU-27 workforce worked from home regularly, and only 15% had ever teleworked (European Commission 2020). Approximately 25% of individuals are said to have died as a result of the outbreak. These might be considered as having a favorable influence on the economy for both workers and businesses.

## **18.4 Conclusion**

This paper studied the positive impact of the Covid-19 outbreak in the twenty-first century. Most importantly this paper highlights the environmental, social and cultural, and economic positive effects. Indeed, this paper studied the environmental positive impact with a special focus on Meteorological, Ecological, and hydrological positive impacts. In the discussion of the socio-cultural positive effects of Covid-19, this paper focuses on the decline of illegal affairs, smoking, alcohol, behavioral changes, Consumption of Hygiene Food Culture, and social solidarity. Focusing on the economic positive effects of Covid-19, this paper highlights considerable facts such as online business, online education, etc.

Although Covid-19 gave the waste experience in the current era (2020), our perspective is, it did not create a high decline in many essential aspects. The online platform gave strength to many fields to move further. And also this study shows that the positive effects of Covid-19 have created and improved a new resilient society, who adapted and transformed their structure and lifestyles in the face of the pandemic.

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