



## IMPACT OF COVID-19 ON ENVIRONMENTAL CLIMATE, PEOPLE LIVELIHOOD, AND THEIR HEALTH

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### ABSTRACT:

Covid-19 pandemic shows many impacts on the environment are observed or could also be anticipated because the pandemic has limited to our Environmental activities, consumption and movement, pollutant emissions and natural resources use have slowed, and therefore the rate of environmental change has fallen in most areas. But CO<sub>2</sub> concentration within the atmosphere still rises and there's the increased use of plastics, notably in packing. Activities to conserve ecosystem and biodiversity are restricted resulting in a rise in illegal waste dumping hunting and logging, for example. As people lose their livelihoods, increased poverty will likely cause more people to show to unsustainable harvesting of natural resources. The lockdown has led to the postponement of important negotiations on global environmental governance within the expected global climate change and biodiversity "super year". The lockdown has several years affected life and livelihood across rural India. Agriculture and allied sectors employ quite half the workforce within the country. A majority of India's farmers (85%) are small and marginal farmers with but two hectares of land. quite 9 million active fishers directly depend upon fisheries for his or her livelihood. Tribal communities are among the foremost vulnerable in terms of food and nutrition security as seen in National statistics. Going forward, one can foresee many challenges as farmers and farm laborers began to rebuild their lives and livelihoods. Informal economy workers are particularly vulnerable because the bulk lacks social protection and access to quality Healthcare and have lost access to productive assets without the means to earn an income during lockdowns, many are unable to feed themselves and their families. For most, no income means no food, or, as best, less food and fewer nutritious food. The pandemic has declared decimated jobs and therefore the place and many livelihoods in danger. As breadwinners lose jobs, fall ill, and die the food security and nutrition of many women, and men are under threat, with those in low-income countries. Guaranteeing the security and health of all agri-food workers from primary producers to those involved in food processing transport and retail, including street food vendors also as better incomes and protection, will be critical to saving lives and protecting Public Health, peoples livelihood, and food security. The lockdown had serious implications on psychological state also leading to psychological problems including frustration, stress, and depression, most of the people get experienced multi-organ effects including heart, lung kidney, skin, and brain infection, this results in chronic health conditions.

**Keywords:** pandemic, biodiversity, environmental, climate, lockdown.

### INTRODUCTION:

COVID 19's impact on the environment has been mixed. Although the pandemic resulted in improved environmental conditions, there are other negative effects, many which are obvious, and others less so. In brief, the positive effects are reduced GHG (greenhouse gas)

emissions, improved water quality, reduced sound pollution, improved air quality, and in some cases, wildlife restoration. Negative effects are increased medical waste, haphazard disposal of PPE, the Increasing waste The prompt of the inorganic waste & organic waste is ramblingly supplemented by various

environmental problems and issues, like pollution, erosion, air, and deforestation. The policies adopted by different governments during the coronavirus pandemic like lockdown and quarantine in most countries have created a replacement demand within the market of online shopping and residential delivery systems. Therefore, the organic waste produced has become very high within households.

On the opposite hand, the food items which are brought online are shipped in single-use and plastic bags and containers, and it's led to a rise within the inorganic waste. Medical Clinical Waste. During the coronavirus pandemic, Wuhan hospital generated 200 metric plenty of medical waste and it had been 50 million quite the standard medical waste generate).

The demand for mask during the pandemic has touched the sky but the weather required for this mask is highly dangerous for the environment as they're generally made from non-woven fabrics. Polyester, Polystyrene, polyethylene, and polycarbonate, are some common materials used for the surgical mask whose density lies between 20grams to 25 grams/sq. meter. These all are liquid resistance and plastic-based products and that they have a high afterlife after being discarded. They find themselves filling the landfills and oceans. for instance in Hong Kong, recently there this clinical waste has already begun to affect and degrade the environment. Increased municipal waste and reduced recycling efforts. The COVID-19 crisis food security, public health, and employment and labor

issues, especially workers' health and safety, converge. Adhering to workplace safety and health practices and ensuring access to decent work and therefore the protection of labor rights altogether industries are going to be crucial in addressing the human dimension of the crisis. Immediate and purposeful action to save lots of lives and livelihoods should include extending social protection towards universal health coverage and income support for those most affected. These include workers within the informal economy and in poorly protected and low-paid jobs, including youth, older workers, and migrants. Particular attention must be paid to things of girls, who are over-represented in low-paid jobs and care roles. Different sorts of support are key, including cash transfers, child allowances, and healthy school meals, shelter and food relief initiatives, support for employment retention and recovery, and financial relief for businesses, including micro, small and medium-sized enterprises. In designing and implementing such measures it's essential that governments w closely with employers and workers.

#### OBJECTIVES:

- To understand the positive and negative impacts of covid on the environment.
- To study the various impacts of covid -19 on the livelihood of people.
- To study the covid -19 impacts on people's health.
- To study the impacts of covid-19 on employment, environment, education, and Economy.

To study the lockdown effects on the environment, climate, and people livelihood.

#### LITERATURE REVIEW:

##### Wildlife and COVID-19: The good

One major and predominately positive advantage of the pandemic for wildlife is a smaller amount of human travel.

Due to the many reductions in journeys, fewer people are hitting and injuring or killing wildlife on roadways. A study from March 2021 found that hedgehog roadkill rates in Poland were quite 50% lower compared with pre-pandemic years, saving tens of thousands of hedgehogs in Poland alone. This might help reverse the long-term decline of European hedgehog populations. Another study analyzing roadkill data from 11 countries found that roadkill rates fell by quite 40% during the primary few weeks of the pandemic restrictions in Spain, Israel, Estonia, and therefore the Czech Republic. In addition, fewer ships are traveling through the world's waterways and oceans for shipping, fishing, aquaculture, and tourism purposes. Striking and injuring or killing marine animals. It's going to also reduce the marine disruption that happens thanks to sound pollution from ships, fishing sonar, and recreational boats. Birds may additionally be benefitting from the sharp decline in aviation, which can have vastly reduced the danger of bird strikes.

According to the Federal Aviation Administration, between 1990 and 2019, there have been about 227,005 wildlife strikes with civil aircraft within the U.S. Additionally, U.S. airplanes

reported some 4,275 more wildlife strikes at foreign airports. These strikes resulted in injury to 327 people. The pandemic has also led to a decline in trusted Sources in industry supply chains, reducing demand for commercial activities that exploit natural resources in many parts of the planet. For instance, lower fishing demand and activity may reduce the removal of animals from the wild. And in India, anecdotal reports suggest trusted Sources that reduced fishing and vehicular traffic at nesting beaches could also be boosting populations of the critically endangered Pacific ridley marine turtle. The pandemic may even benefit Trusted Source wildlife by disrupting the hidden, generally illegal supply chains that destroy wild populations, including people who fuel the wildlife trade. Going forward, authorities may start to require more immediate, forceful action against the illegal exploitation and transportation of untamed animals globally. The planet Health Organization (WHO) released a report Trusted Source at the top of March suggesting that although the precise origin of the pandemic remains elusive, the worldwide wildlife trade could have allowed the virus to enter China. "This report highlights the urgent need to curb wildlife exploitation and signals that wildlife trade could have led to the pandemic," says Tanya Sanerib, the international legal director at the middle for Biological Diversity. Wildlife and COVID-19: The bad However, many of the immediate positive effects of the pandemic on wildlife — like reduced road, air, and ship deaths or disruption — will likely reverse if the planet goes back to business as was

common.

And in many cases, it'll take generations of change to assist thousands of species around the world get over the impact of humankind. For instance, it's going to take 10–15 years of sustained reduced fishing to permit the world's depleted fish populations to recover. Some studies have also found that the pandemic may very well be causing harm to wildlife.

In one study trusted Source, researchers found that reduced human disturbance concerning lockdown has benefitted invasive alien species by interrupting the actions that folks were taking to regulate them. The authors also claim that pandemic restrictions have reduced the work of conservation and enforcement organizations that look after wildlife and guarded areas. And this is often a worldwide trend because the staff of preserves, game parks, sanctuaries, and other wildlife facilities are unable to perform their normal activities. Also, the reduction in enforcement may cause an explosion in illegal wildlife killing — especially, that of endangered animals susceptible to persecution or poaching. Some experts also worry that economic hardship in low-income countries may cause a rise in natural resource exploitation, like unlicensed logging and therefore the illegal wildlife market, as people run out of the way to earn a living. According to satellite images, a sure trusted Source in deforestation is happening in several hotspots. Also, illegal fishing rates are on the increase in Brazil and therefore the Philippines. The changes in activity that the pandemic

has necessitated can also be having some negative effects. As an example, some species that rely heavily on humans for feeding or scavenging, like monkeys, gulls, and rats, could also be struggling with Trusted Source during the pandemic. COVID-19 and air and pollution. Many studies from everywhere on the planet have reported that the pandemic has caused significant reductions in climate and pollution.

One study found that daily global CO<sub>2</sub> levels dropped by 17% Trusted Source during the first months of the pandemic. Similarly, other research showed that levels of the pollutant nitric dioxide lowered drastically, by 20–40%, across the U.S., Western Europe, and China. An analysis of data trusted Source from 44 Chinese cities also found that pandemic travel restrictions resulted in reductions of between 4.58% and 24.67% in five major air pollutants. An American study trusted Source suggests the rationale for this, finding that between March 27 and should 14, 2020, in one Massachusetts neighborhood, car travel reduced by 71%, and vehicular traffic fell by 46%.

These reductions reduced levels of the harmful particles present in vehicular emission, decreasing black carbon by 22–46% and ultrafine particle number concentration by 60–68%. A study trusted Source from Brazil also found that in the partial lockdown in Sao Paulo, levels of gas decreased by up to 77.3% while carbon monoxide gas dropped by up to 64.8% compared with 5-year monthly averages. In another study from September 2020, researchers claim that the pandemic situation has been improving air

quality, reducing greenhouse emission emissions. It also seems to possess reduced the pressure on sensitive tourist destinations, such as trusted Source heavily visited beaches.

**Experts suggest that the unprecedented decrease in air pollutant emissions during the pandemic could reduce seasonal ozone concentrations.**

They estimate that global and European emissions may fall by 30–50% for the industry, energy, international shipping, and road transport sectors, and by 80% for the aviation sector. Travel restrictions and reduced business activity can also be improving the health of the world's bodies of water. One study found that pollution levels dropped by nearly 16% in India's longest freshwater lake during a lockdown period. Another study trusted Source found that COVID-19-related beach closures and travel restrictions reduced the quantity of trash leaking into the marine environment off the coast of Kenya. Improvements in air quality often translate into water quality improvements given how closely the ocean and atmosphere are related.

A pandemic of change Many researchers and wildlife organizations are urging scientists trusted sources and other stakeholders globally to use this unprecedented time for an in-depth examination of the impact of the act on the wildlife. They argue that the knowledge that researchers gather during this point could help improve conservation and biodiversity

efforts.

It may also improve their ability to predict global environmental changes and potential cases of zoonoses, the transmission of disease from animals to humans. this might save many human lives, and economic losses, going forward.

**METHODOLOGY:**

Presently the impacts of COVID-19 in daily life are extensive and have far-reaching consequences. These can be divided into various categories:

**Healthcare**

- Challenges in the diagnosis, quarantine, and treatment of suspected or confirmed cases
- High burden of the functioning of the existing medical system
- Patients with other disease and health problems are getting neglected
- Overload on doctors and other healthcare professionals, who are at a very high risk
- Overloading of medical shops
- Requirement for high protection
- Disruption of medical supply chain

**Economic**

- Slowing of the manufacturing of essential goods
- Disrupt the supply chain of products
- Losses in national and international business
- Poor cash flow in the market
- Significant slowing down in the revenue growth

**Social**

- Service sector is not being able to provide their proper service
- Cancellation or postponement of large-scale sports and tournaments

- Avoiding the national and international traveling and cancellation of services
- Disruption of celebration of cultural, religious, and festive events
- Undue stress among the population
- Social distancing with our peers and family members
- Closure of the hotels, restaurants, and religious places
- Closure of places for entertainment such as movie and play theatres, sports clubs, gymnasiums, swimming pools, and so on. Postponement of examination

#### RESULTS AND DISCUSSIONS:

As the COVID-19 pandemic increased exponentially across the globe threatening lives and uprooting the economy of cities and nations, it also had a major impact on the environment. In a matter of a few months, the world has transformed its way of living. As Work from Home becomes the new norm, 23% of carbon emissions have dropped globally simply because of a decrease in transportation.

#### POSITIVE IMPACTS OF THE PANDEMIC ON THE ENVIRONMENT AIR POLLUTION

- According to WHO, 4.6 million people die each year directly due to air pollution
- A drop of 25% in carbon dioxide emissions along with 40% in nitrogen oxide emissions was observed. Similar changes are observed in Italy during the self-isolation period.
- In India, apart from CO<sub>2</sub> emissions, particulate matter concentration PM<sub>2.5</sub> has been increasing thus not keeping in check with SDG goals as per the report published in the year 2020.

#### THERE IS MORE FRESH WATER AVAILABLE

As the majority of industries have reduced activities, the water consumption of the industrial sector has decreased to about 20-30%.

- The hotels and health clubs are not functioning to full capacity either, hence a decrease in water consumption has been observed. It has also been noted that folks tend to be more efficient with water reception than hotels and resorts.

- Besides a decrease in water consumption, there has been an exemplified clearness in water quality in the canals of Venice, Italy resulting in dolphin sightings for the first time in 60 years due to reduced pollution.

#### THE WILDLIFE IS FLOURISHING

With increasing temperatures coral reefs are likely to decline by a further 70 – 90% and by the year 2030, only 10% of rainforests will be remaining.

- In India, species survival as per red list index is decreasing and hence becoming an environmental concern as per SDG report, 2020

#### THE VEGETATION IS GROWING BETTER

- Due to less human interference, plants are exposed to better air quality and clean water.

- The amount of oxygen and other nutrients required for their growth are not polluted and hence allow plants to grow and harvest healthy produce which is essential for improving the food cycle of the planet.

#### IMPACT OF DECLINED GLOBAL FISHING ON MARINE LIFE

- Since March 11, when the World Health Organization declared Covid-19 a pandemic, global fishing activity has been down by nearly 10% compared to the 2018-2019 average, according to a new estimate, and in some places, the decline has been much

greater.

- In India, the percentage of fish caught by trawling has been stagnating and not meeting SDG goals as per the report published in 2020

#### NEGATIVE IMPACTS OF THE PANDEMIC ON THE ENVIRONMENT

- INCREASING NON-RECYCLABLE WASTE  
With increasing home deliveries during the lockdown, meals and online shopping surged which requires a lot of plastic packaging.

- Production and disposal of surgical masks, gloves, protective equipment, and body bags have increased due to the COVID-19 crisis but all the waste generated ends up adding to the landfills and the environment.

- In a single month, about 5,796 tonnes of single-use plastic waste was generated in Bangladesh alone during the ongoing pandemic.

#### WASTE MANAGEMENT IS GETTING DIFFICULT

- Garbage contaminated with Medical waste has increased.

- Many local waste recycling centers have suspended their activities over the fear of virus circulation in the recycling centers

- Impact of COVID-19 on people's livelihoods, their health

The COVID-19 pandemic has led to a dramatic loss of human life worldwide and presents an unprecedented challenge to public health, food systems, and therefore the world of labor. The economic and social disruption caused by the pandemic is devastating: tens of many people are in danger of falling into extreme poverty, w The COVID-19 pandemic has led to a dramatic loss of human life worldwide and presents an unprecedented challenge to public

health, food systems, and therefore the world of labor. The economic and social disruption caused by the pandemic is devastating: tens of millions of people are at risk of falling into extreme poverty, while the number of undernourished people, currently estimated at nearly 690 million, could increase by up to 132 million by the top of the year.

#### IMPACTS ON AGRICULTURE AND FOOD

Millions of enterprises face an existential threat. Nearly half the world's 3.3 billion global workforces are in danger of losing their livelihoods. Informal economy workers are particularly vulnerable because the bulk lacks social protection and access to quality health care and have lost access to productive assets. Without the means to earn an income during lockdowns, many are unable to feed themselves and their families. For most, no income means no food, or, at best, less food and fewer nutritious food.

The pandemic has been affecting the whole food system and has laid bare its fragility. Border closures, trade restrictions, and confinement measures have been preventing farmers from accessing markets, including for buying inputs and selling their produce, and agricultural workers from harvesting crops, thus disrupting domestic and international food supply chains and reducing access to healthy, safe and diverse die Millions of agricultural workers – waged and self-employed – while feeding the world, regularly face high levels of working poverty, malnutrition, and poor health, and suffer from a scarcity of safety and labor protection also as other sorts of abuse. With low and irregular incomes and a lack of social support, many of them are spurred to

continue working, often in unsafe conditions, thus exposing themselves and their families to additional risks.

Further, when experiencing income losses, they may resort to negative coping strategies, such as distress sale of assets, predatory loans, or child labor. Migrant agricultural workers are particularly vulnerable, because they face risks in their transport, working, and living conditions and struggle to access support measures put in place by governments. Guaranteeing the safety and health of all agri-food workers – from primary producers to those involved in food processing, transport, and retail, including street food vendors – as well as better incomes and protection, will be critical to saving lives and protecting public health, people's livelihoods and food security.

#### **Impact on Employment:**

Most of the people were majorly impacted (completely lost their income/no employment and/or major reduction in their income) by the COVID-19 lockdown. Daily wage workers and people involved in privately jobs, contractual jobs and own personal businesses were those largely impacted by the lockdown. To scale back economic vulnerabilities at the household level, social protection # coverage must be saturated among the foremost marginalized households (e.g. low income, low caste, and people whose members lost jobs/income). Coronavirus pandemic brought the economy of India to a halt over the past year, and various people have lost their jobs, especially women. A recent study in Delhi found that in eight months, the percentage within the capital increased by 17%, with about

83% of girls respondents choosing to permanently cop-out of participating within the workforce. An identical trend has been observed throughout the country, and this at a time when the participation of girls was already declining within the workforce with each passing year.

**IMPACT ON EDUCATION**  
While the Covid-19 pandemic has made online education the buzzword, a recent report by the worldwide education network Quacquarelli Symonds (QS) says that the Indian internet infrastructure remains far away from able to support the shift. Only 24 percent of households have access to the web, consistent with a 2019 government survey. In rural India, the numbers are far lower, with only 4 percent of households having access. A 2018 NITI Aayog report revealed that 55,000 villages in India didn't have mobile network coverage. A 2017-18 survey by the ministry of rural development found that quite 36 percent of faculties in India operated without electricity. The stress on technology-driven education is additionally alienating many children from the underprivileged sections, preventing them from continuing their studies. Even other stakeholders are struggling. Teachers aren't always trained and equipped to transition to online teaching.

#### **Impact on Economy:**

The impact of the coronavirus pandemic on India has been largely disruptive in terms of economic activity also as a loss of human lives. Most of the sectors are adversely affected as domestic demand and exports sharply plummeted with some notable exceptions where high growth was observed. Many retail and wholesale



businesses are deeply hurt by the localized lockdowns, but the very fact that the movement of products has not been stopped and industries are being allowed to function could significantly limit the economic loss while the second wave has not impacted the livelihood of salaried employees to an excellent extent, it's again affected poorer households. Thousands of migrant laborers and daily wage laborers returned home when some states announced lockdowns in prominent cities.

#### IMPACT ON HEALTH;

It is documented that pandemics pose a threat to psychological state. Correspondingly, 2 recent reviews found a consistently negative impact of COVID-19 on psychological state, with 16–18% of participants showing symptoms of hysteria and depression. The primary evidence indicates that ladies, younger people, and people with poor sleep quality are at an increased risk for psychological state problems. Working during a high-risk department diagnosed loved one, inadequate hand hygiene, suboptimal hand hygiene before and after contact with patients, improper PPE use, close contact with patients ( $\geq 12$  times/day), long daily contact hours ( $\geq 15$  h), and unprotected exposure. The foremost common symptoms identified amongst HCWs were fever (85%), cough (70%), and weakness (70%). Prolonged PPE usage led to cutaneous manifestations and skin damage (97%), with the nasal bridge (83%) most ordinarily affected site. HCWs experienced high levels of depression, anxiety, insomnia, and distress. Female HCWs and nurses were disproportionately affected.

#### CONCLUSION:

Therefore, positive impacts are relatively high and some impacts are short term and most others are long-term. This situation depends on the early stage of April 2020 and the shape could change due to several global socio-economic and political factors. So far, COVID-19 is in a rapid spread tendency in most countries, and there are no sufficient health and socio-economic facilities, especially supply chain networks to address the need structure of the pandemic situation in these countries. When the Indian scenario is analyzed, the COVID-19 impacts will be the most painful here when compared to other countries. The social system prevailing in India is not simple in terms of managing the pandemic situation. Any society which has a high social disparity may have to face the most negative impacts. The negative impacts on the family, communities, nations, regions, and the world push them backward in any sector or socio-economic and political spheres. Several elements which cause negative impacts can be identified as illnesses or COVID-19, pandemic situation, deaths, social distancing, curfew, and the lock-down of the entire functional mechanism of a single society and the global network in production, trade, supply chain networks, transportation, social networking, and political network. Therefore, this paper has given similar attention to the negative impacts of COVID-19 at the local, regional and global contexts based on the situation in early April 2020. They are given in the following:

When these positive and negative impacts are considered, it is very clear that COVID-19 has caused more positive impacts to the nations, regions, and the world, particularly to South Asian countries. However, some countries

such as Italy, Spain, the USA, and China, and several European countries have suffered a lot.

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