

Pandemic implications on Environment



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Impacts of COVID-19 on global economy

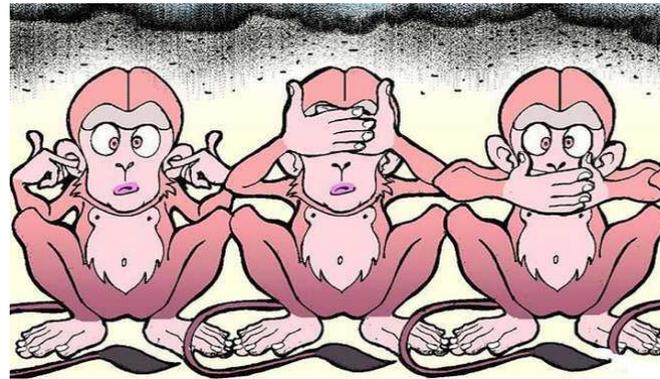
- ▶ It is predicted that the COVID-19 outbreak the world needs a “support package of up to \$2.5 trillion to cope with the damage” (UNCTAD, 2020),
- ▶ (ILO, 2020): almost 25 million people around the globe could lose their jobs, and workers’ income of as much as USD 3.4 trillion’, and around 2.7 billion workers are impacted by the lockdowns measures, which is 81% of the total global workers .



<https://njbmagazine.com/njb-news-now/57-of-unemployed-americans-blame-covid-19-for-job-loss/>

Impacts of COVID-19 on Circular Economy and Sustainability

- ▶ “The COVID-19 pandemic has exposed businesses and societies to the shortfalls of normal patterns of production, consumption, and their long-lasting impact on supply chains”(Nadia et al., 2020) .
- ▶ Yet, policies initiatives still **protect** the **building blocks** of their **linear economies** - established corporations and their supply chains, financial markets, or existing industries - **sidelining waste management** and resource concerns, and creating challenges .



<https://toistudent.timesofindia.indiatimes.com/news/just-ask/shruthi-why-do-we-turn-a-blind-eye-to-real-issues/34183.html>

- ▶ **CE principles can mitigate the overconsumption** of raw materials and the overproduction of waste as a small but growing number of individual firms employing more circular business models in industry. (Boyer et al.,2020)
- ▶ encouraging ongoing **conversations** : about the **Post-COVID 19** reprogramming of linear economy towards a **more circular** one where entrepreneurs can play a vital role. (Neumeyer et al., 2020).

Environmental Impacts of Covid-19

Topic	Explanation	Summary	Reference
Reduction in air pollution	pollutant emissions and natural resource use have slowed	As the pandemic has limited our economic activities, consumption and movement, pollutant emissions and natural resource use have slowed, and the rate of environmental damage has fallen in most areas.	Unecce , 2020
	Decrease in some air pollutants like NOx and SOx.	A study conducted to examine the status of air quality during and pre-COVID-19 lockdown, and to recommend some long-term Findings: “the declining trend of air pollution level in Kolkata [India] during lockdown is a momentary phenomenon”, during the lockdown, showing positive environmental impacts The result shows that the pollutants like CO, NO2 and SO2 are significantly decreased, The decrease however is thought to be momentary	Bera et al.,2020
	Dramatic but temporary improvements in air quality as industry and transport shut down.	Shipping has declined worldwide and reduced impacts on marine systems might be expected. likely to see a global decline in greenhouse gas emissions, as well as large reductions in other drivers of global warming, such as the contrail cirrus from high-flying aircraft. Seattleite images have shown dramatic improvements in air quality in every country affected by the pandemic, as industry and transport shut down. The improvement is thought to be only temporary short-term.	Corlett et al., 2020
	Reduction in greenhouse gases globally	Global atmospheric emissions are reduced by 2.5Gt of greenhouse gases, 0.6Mt of PM2.5, and 5.1Mt of SO2 and NOx.	Lenzen et al.,2020

Main ENVIRONMENTAL IMPACTS :

Positive externalities

- ▶ Huge decrease in air emission from one of the main polluters: transport
- ▶ Reduction in some pollutants in the atmosphere
- ▶ Improvement in vision due to increase in air quality
- ▶ Ozone layer improvement (why?)
- ▶ More nesting in turtles and birds
- ▶ More records of wild animals in seashores, public areas and cities
- ▶ Potential of starting a greener economy after the fall of many businesses
- ▶ More awareness of food security and agriculture for food
- ▶ More Vocal conversations about CE and post-covid green recovery
- ▶ Less travel and more utilization of virtualization



<https://in.pinterest.com/pin/789115165952582386/>

Environmental Impacts

- ▶ Conflicting phenomena, as seen in the systematic review in Table1 above.
- ▶ Some air pollutants noticeably decreased, with limiting travel by airplanes and even trains, buses and cars.
- ▶ Mount Everest was visible from Kathmandu valley, located 200 km away, for the first time.
- ▶ Also, in the Arabian Gulf, people on the east coast of Saudi Arabia took pictures of Bahrain located on the other side of the Saudi-Bahraini sea bridge, that was never visible before, with more than 2 Million cars crossing the bridge annually, before the lockdown.
- ▶ Field researchers saw and recorded more nesting of sea turtles and birds globally.
- ▶ Many citizens worldwide shared videos on the internet of species and wildlife roaming public places,



Environmental Impacts

The global plastic packaging market size is projected to grow from USD 909.2 billion in 2019 to 1012.6 billion by 2021, at a compound annual growth rate of 5.5%, mainly due to pandemic response (Adyel, 2020)



<https://waste-management-world.com/a/systemic-weakness-the-thing-about-plastic-2>

Environmental Impacts

- ▶ **Protected Areas**, Natural habitat and fragile wildlife is likely to receive **less attention** as conservation field workers are overwhelmed . Wildlife crimes are likely to increase with less surveillances and financial support (Neupane, 2020).
- ▶ **Activities** to conserve ecosystems and biodiversity have been **restricted** leading to an increase in illegal waste-dumping, hunting and logging and less staff: sea turtles conservations (UNECE,2020)
- ▶ Furthermore, **less conservation staff** and field worker” for reporting and recording of all the nests along the beaches in the Arabian Gulf(Al-Muhannadi et al.,2020).



Main ENVIRONMENTAL IMPACTS : negative externalities

- ▶ Huge increase in waste especially plastic
- ▶ Weakening previous environmental advancement with plastic pollution
- ▶ Weakening existing environmental polices and implementation
- ▶ increase chemical pollution
- ▶ **Medical waste**
- ▶ Weakening existing waste management processes
- ▶ **Delaying decision and global conservational agreements**
- ▶ **Halting research** and conservational opportunities
- ▶ Decrease in protection and monitoring
- ▶ Lost continuity in stopplasticpollution
- ▶ Huge increase in vitalization and its impacts
- ▶ **More packaging**
- ▶ Loss of agricultural products due to disrupted transport an supply chain at the beginning
- ▶ **Digital pollution and waste**



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<https://www.pinterest.com/pin/758434393473754393/>

The pandemic could result in a monthly global consumption and waste of :

- ▶ 129 billion face masks and
- ▶ 65 billion gloves

(Adyel, 2020)

Environmental Impacts of Covid Precautionary Procedures



The Environment is a big victim of Covid-19 Precautionary Procedures, as procedures did not consider environmental impacts at all

References

- ▶ AL-MUHANNADI, K. (2021). Review of impacts of the pandemic's precautionary procedures on circular economy and sustainability and lessons learned in developed and developing countries
- ▶ TANVEER M. ADYEL (2020). Accumulation of plastic waste during COVID-19. *SCIENCE*•11 Sep 2020•Vol 369, Issue 6509•pp. 1314-1315•[DOI: 10.1126/science.abd9925](https://doi.org/10.1126/science.abd9925)



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