ISSN: 2457-0761

JBC-APRF-4(2): 341-341, 2020

JOURNAL OF BIODIVERSITY AND CONSERVATION

The Environmental Impact of COVID-19

We are facing a global health, economic and social crisis (Sun et al. 2020) due to COVID-19 pandemic. The novel coronavirus disease (COVID-19), which has been characterized as a pandemic by the World Health Organization (WHO), is attacking societies at their core (Monserrate et al. 2020). In a matter of months, the world has been transformed. Thousands of people have already died and fallen ill (Sun et al. 2020). For millions of others who have not caught the disease, their entire way of life has also changed by it (Cui et al. 2019). The COVID-19 pandemic is having a great impact on our planet. To be clear, it is a tragedy and has affected human life very badly, overloaded hospitals and unemployment (Cui et al. 2019). Due to the coronavirus, prices of food products have been increased in many countries also causes economic disaster and it has caused depression, the stress in millions of people and many countries around the world have lockdown and quarantined its citizens to slow down the spread of the virus (Sun et al. 2020; Cui et al. 2019). Early evidence indicates that the health and economic impacts of the virus are being borne disproportionately by poor people (Monserrate et al. 2020). But if we look on the other side of the coin, Coronavirus have positive effects on the environment including better air quality, slowing of green gas emission and cleaner river water (Yuen et al. 2020).

Air Pollution

One of the main impacts of the coronavirus outbreak, is a significant drop in the air pollution which has been noted in many parts of the world (Qu et al. 2020). Many countries around the world have implemented lockdown and quarantine to slow down the spread of the virus and due to this flights have cancelled (Saadat et al. 2020), now there are a lot less planes in the sky and no vehicles on the streets meaning a less air pollution and greenhouse gases being emitted and air quality has improved significantly and the earth's ozone layer is also recovering (Dutheil 2020).

Green Gas Emission

Slowing economic activities also brings down emissions as countries ordered closedown of schools, factories, industries and emissions are expected to fall (Saadat et al. 2020). A study by specialist outlet Carbon Brief found that in China, carbon dioxide emissions have fallen by around 25 percent (Muhammad et al. 2020).

New York

With many people around the world self-isolating and most of the countries and cities on lock down, some major cities outside of China are also observing important air quality (Saadat et al. 2020). One example is New York, researchers have found that there has been a 5-10 %

drop in air pollutants in New York (Qu et al. 2020).

Olive Ridley Sea Turtles

India going into lockdown, along the coast of the Eastern state of Odisha, over 475,000 endangered Olive Ridley sea turtles have come ashore to dig their nests and lay eggs (Saadat et al. 2020) without any anthropogenic activities.

The Rivers of India

Visuals of a cleaner River Ganga have emerged from Kanpur as well as Varanasi. The clear water is a result of the shutdown of most industries (Monserrate et al. 2020). In a rare sighting, fishes can be seen near the Varanasi ghaat steps. This seems to have happened because of absence or crowds and clean water (Saadat et al.2020). The water of River Yamuna has also started to appear cleaner in Southeast Delhi's Kalindi Kunj (Monserrate et al. 2020; Nghiem et al. 2020). The stoppage of industrial pollutants and industrial waste has definitely had a positive effect on water quality. Religious activities have decreased, especially in Varanasi, where lesser cremations are happening. The current scenario should shape our future approach of how authorities should minimize industrial effluents in the water bodies (Nghiem et al. 2020; Monserrate et al. 2020).

Cleaner air and increased visibility

Cleaner air has perhaps been the most positive effect on the environment. Citizens in Northern India are seeing the view of the Himalayan mountain range for the first time in their lives, due to the drop in air pollution caused by the country's corona virus lockdown (Saadat et al. 2020). Those living in Jalandhar in Northern Punjab have shared pictures of the mountains from rooftops and empty streets, amazed by the view which has been hidden by pollution for 30 years (Nghiem et al. 2020).

Cleaner water

In Venice, famous for its winding canals, water quality appears to have improved amid Italy's stringent coronavirus lockdown (Nghiem et al. 2020). Residents in the city have said that waterways are benefiting from the lack of usual boat traffic brought on by the hordes of tourists who visit each year (Saadat et al. 2020). The improvement is thought to be linked to a reduced amount of sediment clouding the waterways, with the decline in water traffic meaning the muddy canal floors are no longer being churned up (Nghiem et al. 2020). The change has meanwhile reportedly offered locals clear views of shoals of small fish, crabs and multicoloured plant-life - sights often obscured by busy boating movement in the Lagoon (Monserrate et al. 2020).

Liberated Wildlife

As in Venice, wildlife elsewhere has also taken the opportunity presented by our widespread absence from suburban streets and city centers to venture out and explore (Yuen et al. 2020). In Barcelona, Spain, boars have been spotted along the city's normally bustling avenues, snuffling and trotting around where vehicles once jostled for position (Saadat et al. 2020). Meanwhile in Chile's capital, Santiago, a wild puma was captured after being found wandering around the city's deserted centre during a night-time curfew. It is thought that the animal may have ventured down into the capital from nearby surrounding hills (Yuen et al. 2020). Trevor Dines, Plant life's Botanical Specialist said: "An unintended but understandable consequence of lockdown may be reduced mowing that has the potential to benefit wild plants and the bees, butterflies, birds, bats and bugs

that depend on them for survival." Across the world, the lockdowns may just be showing us how quickly the natural world around us can adapt and thrive in our absence when given some space. when we move out, nature can move in (Prata et al. 2020).

References

Cui J, Fang L and Zheng L S. (2019). Origin and evolution of pathogenic coronaviruses. Nature Reviews Microbiology. 59 (17):181-192.

Dutheil F. (2020). COVID-19 as a factor influencing air pollution? Environmental pollution (Barking, Essex:1987). 263: 114466.

Monserrate M A Z, Ruano M A and Alcalde L S. (2020). Indirect effects of COVID-19 on the environment. The science of the total environment. 728.138810

Muhammad S, Long X and Salman M. (2020). COVID-19 pandemic and environmental pollution: A blessing in disguise? 728.138820

Nghiem L D, Morgan B, Donner E and Short M D. (2020). The COVID-19 pandemic considerations for the waste and wastewater services sector. Case studies in chemical and environmental engineering. 78:938–949.

Ossebaard H C and Lachman P. (2020). Climate change, environmental sustainability and health care quality. International journal for quality in health care. 855:036

Prata D N, Rodrigues W and Bermejo P H. (2020). Temperature significantly changes COVID-19 transmission in (sub)tropical cities of Brazil. The science of the total environment. 729.138862.

Qu G, Li X, Hu L and Jiang G. (2020). An Imperative Need for Research on the Role of Environmental Factors in Transmission of Novel Coronavirus (COVID-19) Environmental Science & Technology. 54(7): 3730–3732.

Saadat S, Rawtani D and Hussain C M. (2020). Environmental prospective of COVID-19. The science of the total environment. 728.138870

Sun P, Lu X, Xu C, Sun W and Pan B. (2020). Understanding of COVID-19 based on current evidence. Journal of medical virology.32096567

Yuen KS, Ye ZW, Fung SY, Chan CP and Jin DY. (2020). The most important research questions. Cell and Bioscience. 10:40.

Adya Anindita Dash
Managing Editor
JBC