

POSITIVE IMPACTS OF COVID-19 PANDEMIC ON NATURAL WATER BODIES

Bhagwat W. Chavre

Department of Botany

Arts, Commerce Science College,

Nandgaon, Dist. Nashik (M.S.)

chavrebhagwat@gmail.com

Varsharani A. Ghatule

Department of Zoology,

HPT Arts, and RYK Science College,

Nashik (M.S.), India

Abstract: *An infectious disease, COVID-19 overwhelmed the world as a global pandemic. All countries worldwide adopted some sort of control measures to save their people from this evil. Lockdown proved to be the most effective tool against the spread of the disease as it emphasizes on physical and social distancing. Lockdown not only controlled the spread of disease, but some positive environmental dynamic changes are also observed during this period. Those changes have not been ever seen in the world before and probably not possible to happen in near future. A remarkable reduction in all types of pollutions including air, water, land and noise was recorded during this lockdown. It is estimated that, about 30 % reductions in pollution is recorded in the developed countries like, USA, Italy, Spain, France etc. in the months of lockdown. In this article, an attempt is made to review impacts of lockdown on the water bodies throughout the world.*

Key Words- *COVID-19, Pandemic, Lockdown, Water bodies, Pollution*

Introduction : Coronavirus, a novel infectious disease originated from Wuhan of china in December 2019, which is later named as COVID-19 (Muhammad et. al, 2020). It has trapped whole world in its deadlier net. As it is emerged as a new disease World Health Organization confirmed it as a infectious disease which transmits man to man by respiratory droplets (WHO, 2020). The disease started from the Wuhan gradually spread all over the country, China within a small span of time. Ultimately the disease spread all over the world through the international travelers. Many countries took all necessary cares to save their population form the pandemic but many of the failed to do so. Coronavirus spread very fast within a period of less than six months all over the world. Many developed countries including USA highly impacted by the disease and thousands of people died due to infection of the virus.

Developing countries like India, Pakistan, Shrilanka and so many others are also seen trapped badly by the disease. As scientists knew, the disease spreads form person to person; the way of social distancing was emerged out. Many countries decided to observe a lockdown for few days to few months to break the chain of infections. This remedy could prove the successful control of disease in all over the world.

During the lockdown many small and big industries are shut down globally, road, rail and air transport were totally lapsed. The social and economic health of countries all over the world badly affected. Many small activities causing pollution were closed and ultimately environment became pure magically. Air became pure, water became more transparent, visibility of far away things was enhanced and animals and plants took the free breathing during the lockdown period. In this article an attempt was made to enumerate some positive impacts of lockdown observed during COVID-19 on natural water bodies like, rivers, lakes, ponds, sea and other natural water bodies.

Enhanced Water Health Due To Covid-19 :

As per the available references the effects of COVID-19 lockdown on the various water bodies throughout the world are discussed here.

River Yamuna is one of the biggest rivers of India. Water of which is utilized for the purpose of agriculture, drinking and industrial purposes, But due to lack of management and release of urban and industrial wastes, water of river is highly polluted and become harmful for aquatic as well as terrestrial animals including man. But, Industrial discharges in big rivers like Yamuna were totally stopped during the period of lockdown which impacted positively to enhance the water quality (Sharma and Goel, 2020). It is also reported that, holy Ganga river became noticeably pure for bathing and for the propagation of wildlife and fisheries. Water quality of river Ganga was observed to be enhanced by 40 to 50 % during the lockdown. The water of all those rivers became very suitable for the growth of aquatic animals like fishes. It is also reported that, the dissolved oxygen values of certain regions of Ganga river water found increased during lockdown to 6.8 mg/litre from 3.8 mg/litre prior to lockdown. Water of the river at Haridwar and Rishikesh was reported fit for drinking due to 500 % decrease in sewage and industrial effluents (Singhal and Matto, 2020).

Dissolved oxygen (DO), is the most important water parameter to analyze quality of water. DO of natural water is adversely affected by disposal of different wastes in to the water.

Chakraborty et.al (2020) carried out a study on dissolved oxygen of three stations of lower Gangetic delta region, and found that during the period of lockdown DO of all the selected stations was increased nearly by 38 %. At the time of lockdown complete closure of industrial operations and tourism were the main reasons to enhance the DO of the selected study stations.

It is reported that industrialization and anthropogenic activities increased remarkably in last two decades highly polluted hydrosphere. Direct release of water in oceans and freshwater bodies highly disturbed water quality. Such polluted water became a critical problem to aquatic animals as well as for the health of man. Yunus et.al.(2020), carried out a study with the help of remote sensing images and confirmed that there is an improvement in surface water quality in terms of suspended particulate matter (SPM) in the Vemband lake in India. It is estimated that SPM of the lake was decreased by 15.9 during the lockdown period. It is also observed that the percent decrease in SPM for April 2020 was up to 34 % from the previous minima. This dynamic change in the pollution percentage was due to the complete stoppage of industries and tourism activities hotels, restaurants and other businesses in the vicinity of lake.

Several major industrial sources like industrial wastes, water disposal, crude oil, heavy metals and plastic are completely stopped during lockdown period (Hader et.al, 2020). Studies reveals that popular Grand Venice Canal in Italy was turned clear during the lockdown period and many aquatic species found repapered due to lapsed human interference.(Clifford, 2020, Yunus et. al, 2020).Due to drop down in motorboats, sediment churning and other water pollutants, residents got amazed by seeing the clear water and the fish could be seen once again in the canals (Saadat et.al, 2020).

Sea beaches are very important tourism spots of every country which are highly critical for the survival of coastal communities. Overexploitation and non-responsible use of beaches causes severe problems like pollution. Due to coronavirus pandemic restrictions has caused remarkable changes on many beaches of the world. Acapulco (Mexico), Bercelona (Spain), Salinas (Ecuador) and such other beaches look cleaner and with crystal colour pure water (Zambrano- Monserrate et. al., 2020)

Khanna et. al (2020) through their research article left a message for all the human society to take care of our mother nature which will help us to take care of ourselves. Water is such a natural resource which should be preserved for the present and future generations.

Conclusion : Corona virus is a microorganism, not visible to naked eyes collapsed the economic, political and social aspects of almost all countries of the world. Still it has implicated with some positive effects on environment. World observed are still observing halfhearted lockdown during COVID-19 pandemic. The sectors like industry, tourism, and other small businesses were strictly banned lead to improvement in environmental quality. Water, air, land pollution during this period was amazingly decreased. Man realized his impact on environment during this pandemic. If man apply some restrictions on himself and stops overexploitation of natural resources, our mother earth would be more beautiful in future. But unfortunately man intensely and knowingly ignores environment, in future we will have to pay a big cost than COVID-19.

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