

Impact of Lockdown on Biological Diversity – An Overview of the Outbreak

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Abstract

This survey research paper deals with the COVID-19 impact on the biological diversity. Various parameters defining the effects of the nature are considered. The impact of the nature with respect to Wildlife, Biodiversity, Communication and Pollution, which are the day to day parameters degrading the positive environment, are considered in this survey.

Keywords: CoronaVirus, Pneumonia, COVID-19, Wildlife, Bio-Diversity, Lockdown

1. Introduction

December 2019 – An outbreak of a new type of pneumonia in the place Wuhan of Hubei province of China, totally unknown to the world, took birth to be the silent killer of the world. The novel type of micro-organism, Corona virus was exposed with its new scientific name to the world (1). This disease affects the respiratory system and it spreads through the droplets of saliva, cough and sneeze of infected people COVID-19.

We are very much exposed to the economic status of the world and the GDP of half of the world is highly or moderately or some or the other way dependent on the nature. This pandemic or COVID-19 has caused one to remember us about our behavior, functioning and relationship with nature. The isolation or quarantine of people or the lockdown has aided the environment to be clean in fact having a sky clear atmosphere and dust free. This has come as a blessing in disguise for the people to value the relationship and come in healthy bonding with humanity in the society. The human activity has modified, altered or refitted the living style of life.

COVID-19 is termed due to the dawn of the new virus. The new virus is named as Coronavirus which has been spread across two hundred and ten countries; thus, becoming the largest widely spread pandemic in the world (2). With all global intelligent minds around, there is no specific medicine found till date however, the process of discovering the vaccine is under process. The spread of the novel virus can only be stopped or minimized with the aid of imparting knowledge of social distancing and safety precautions.

The new origin COVID-19, Corona virus stepped in this world with its old origin but with a new term belonging to the family of virus, born in the place of Wuhan of Hubei city of China. The first case was found to be reported from the city Wuhan. On December 1, the first symptom appeared affected with this new origin. After a five days of his illness, his wife of 53 years old, who did not have any known

history of exposure to the market, was also affected with pneumonia. She was hospitalized and kept in the isolation ward for the observation. It wasn't until the second week of December; the Wuhan doctors were finding cases that indicated the virus was spreading contagiously (3). On December 25, Chinese medical staff in two hospitals at Wuhan was found with similar symptoms and to be suspected of declining towards viral pneumonia and were quarantined. Later, hospitals in Wuhan city witnessed an “exponential” and “rampant” increase in the number of cases in late December which cannot be linked back to the Huanan Seafood Wholesale Market. Later, Chinese officials ruled out the possibility that this was a recurrence of the severe acute respiratory syndrome (SARS) virus-an illness that originated in China and killed more than 770 people worldwide in 2002-2003. On January 7, 2020, this was identified as a new virus and was named as Corona virus. It is caused by severe acute respiratory syndrome (SARS). Corona virus (SARS COV-2) infected many; resulting in the catastrophic downfall of human survival. It might also be transmitted from bats and causes similar symptoms. COVID-19 is reported to have high transmissivity. This Virus affects all age groups. But, the severity is found to depend upon the immune system and age of the individual. Also, it was found that men are more affected than women, since women tend to possess higher level of behavioral and hygienic consciousness (4). Anyway, this has shaken the whole world. However, the scientists in Hongkong had warned about this type of virus 13 years ago. If this had paid some attention before in hand, the world would not see this state of life and people's suffering. One more instance, On April 12, 2007, four scientists who were from the University of Hongkong prepared a detailed research report in which they had already mentioned about the birth or the appearance of Corona virus. This was published in the American Society for Micro Biology (ASM). According to the report, scientists revealed that in 2002, Virus like SARS originated from China's wildlife market and the infection of Corona virus was initiated; spreading through bats, frogs, snake, bird, marmot and rabbit which were frequently sold at the Hunan market (5) but unknown to the fact that it is factually from the animals and still the issue is in dilemma. The new virus has originated and shaken the faith of the people on living. Its current name is COVID-19.

2. Impact on the Nature

Wildlife

Lets stop our train of thoughts for a while on the spread of Virus. Rather let's focus our time thinking about the positive impacts of this outbreak. Thinking upon the wildlife, lead author Dr. Ryan Pearson said the risk of infectious disease outbreak was directly linked with environmental degradation (6). Due to the spread of corona virus, the world has entered into the dark times but nature seems to be reclaiming her territory. A massive Nilgai (Blue-Bull) wandering outside a mall in Noida, India, coyotes basking in the parks of San Francisco, cougars roaming the streets of Santiago, Chile, penguins waddling across Cape Town, and even sea lions in Mar Del Plata harbor in Argentina! Some rare wildlife is witnessed by the world. As people have confined themselves in their homes, the reports are out telling the incidents of animals venturing into cities. The time has come to give a pause to rethink on our relationship with nature. On the other hand, quarantine is affecting wildlife in an unexpected way. In a country like India, many wildlife species are much adapted to urban environment and dependent on human generated food wastes. Another massive impact is that the decline in wildlife trade is like a silver lining in the dark clouds. Organisations around the world are urging to ban the live animal markets, stop illegal trafficking and poaching of wild animals for a long time and the onset of corona virus highlights the negative effects of these practices. Studies have proved that this disease could have been prevented if these steps were taken long ago. However, this situation is like a double edged sword. While in India, the state

governments are making monetary arrangements to support the elephant owners. In the forests of Central Africa and the other parts of the world, the wildlife conservation society is working with the Food and Agricultural Organisation and other partners to improve the food security and lessen the need for bush meat hunting (7).

Bio-diversity

The COVID-19 pandemic has the potential to trigger enormous effects on biodiversity and conservation outcomes. This virus emerged due to wildlife exploitation (8). The spread of the virus is on one side but the other side it has affected the animal life especially human beings, their families, friends and people around. The whole world is facing the new change to adapt education in a newer way. Many institutes, research centers have been shut down. The teachers or lecturers have messed online. The teachers are with a little training on online teaching. This training taken in a short period of time is said to be ineffective. This online teaching can work well with some subjects. The subjects like medicine, the practical lab learning, and experiences gained through field courses will not or may not go well with the online teaching. The COVID-19 has affected many careers related to the field of conservation too. This ongoing situation has postponed the exams, certificates and other appreciation rewards are delayed or postponed. The projects are on hold. The problem with the employment has brought havoc in the life of the people. But, researchers are facing new ways of employing students to work on analysis, paperwork, transcription or on other. The term or tenure or occupation of the employees or staff is dependent on the institutions for the support or for the survival. Many NGOs sign up or employ seasonal or temporary employees to carry out the work. This pandemic has become tough for such employees. Unless the tough situation is slackened, the students or employees may miss many opportunities.

Communication

Communication through online may affect the large size of meetings. It is quite effective for the small and average gatherings and one to one teaching. The impact is on bio-diversity loss and climate change. The important conservation task is going on. The wildlife is protected and national parks are taken care. The quarantine and the lockdown has reduced pressure by human beings on wildlife. The images shown by the satellite about the air quality has proven to be good. The marine life is expected to be good due to the decline of the movement of ships. The flying aircraft has reduced the pollution.

Pollution

Sometimes nature bounces back and it may turn to a blessing in disguise. Should we say that COVID-19 is a blessing in disguise? (9) Due to limited social activities and economic activities, pollution is reduced. The traffic pollution is one of the major pollutions, and it is due to the emissions of NO₂. This is a poisonous or lethal to the human body and the revelation of the human body to NO₂ may increase or decrease the death or fatality rate. Similarly, carbon-di-oxide terms challenging for global warming. The air pollution has caused much harm and has become a global problem. Annually millions of people die due to air pollution or poor quality. This is a global problem. 1,93,000 people died due to air pollution in 2012 (10).

The transportation during lockdown is reduced which resulted till today in less oil consumption. The air pollution has reduced to some extent and even the noise pollution is reduced which was the result of the transportation and the industries. Due to the reduced running vehicles, the noise is reduced and people have found peace in their locals. The matter was in a reverse condition earlier. The people would go in

search of peace in the remote areas or try to explore in the jungles which in fact made him to encroach the property of the wildlife. Human, intentionally or unintentionally, had encroached the living of the wild animals. This COVID-19 has shut and closed down the activities for some period of time and this resulted in the improvement of the condition of the atmosphere. This also prove that there was improvement in the water quality of the lake named Vembanad, which is the largest freshwater lake in India (11). Scripps Institute of Oceanography reported that the use of fossil fuels would decline by about 10% around the world owing to the COVID-19 spread (12). The outbreak of the virus and its spread has not only severely threatened the globe but the point is towards the economic growth also. The huge recession is found in 2020. The economic rate would drop to -3%. The research shows that the pollution will increase with growth in the economy and decrease the economy.

3. Conclusion

With the survey research, we can conclude that the effect of COVID-19 has affected in both terms of darkness and brightness. The human acts are punished and cannot be recovered unless we step in the proper bond with the nature. Hence, we need to learn the living with the present scenario with challenge and strength enriching the rebirth of spirit. New ways and research needs to be drawn for human survival and growth of the world in terms of biological and economical.

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