Positive effects of Covid-19 on Earth

Swapnil Borage*1, Priyanka Shelotkar2

1Department of Shalakya Tantra, Mahatma Gandhi Ayurved College, Datta Meghe Institute of Medical Sciences, Sawangi, Wardha, Maharashtra, India
2Department of Kaumarbhritya, Mahatma Gandhi Ayurved College, Datta Meghe Institute of Medical Sciences, Sawangi, Wardha, Maharashtra, India

**ABSTRACT**

COVID-19 has proved to be a threatening pandemic for all human beings. Cases of COVID-19 reported globally till 13th April 2020 are 17,73,084, out of which 1,11,652 have died. While in India, greater than 9000 positive cases and 308 deaths are reported. People in many countries, all over the world, are locked down to their houses, and policies are implemented to avoid the spread of corona virus. But looking at this scenario, in other perspective reveals different knowledge. As, the roads are not crowded, and the malls, transport, institutes, and industries are closed, there is significant improvement in the climate. The present study intends to review these positive changes in climate, and the lessons human should learn from the pandemic, COVID-19. The data related to the effect of human interactions on nature, and the results of lockdown was collected from international newspapers, scholarly articles from peer reviewed journals, and WHO database. The data showed that, after lockdown, there is improvement in the quality of air, the greenhouse gas emission has significantly reduced, and amount of industrial wastes poured in rivers has dropped down, making the water clearer. The nature heals itself, with less human interactions, and worsens with more. So, we must make policies not to damage it further, with our interactions.

*Corresponding Author

Name: Swapnil Borage
Phone: +91-9665859565
Email: swapnilborage87@gmail.com

ISSN: 0975-7538
DOI: [https://doi.org/10.26452/ijrps.v11iSPL1.2704](https://doi.org/10.26452/ijrps.v11iSPL1.2704)

**INTRODUCTION**

Charles Darwin introduced for the first time, a concept of natural selection. ‘It is the adjustment of genes throughout generations based on factors that help it survive’. This can also be called as survival of the fittest, or the organisms that are better suited to the environment in other ways ([Examples of Natural Selection, 2020](https://doi.org/10.26452/ijrps.v11iSPL1.2704)). At this moment, Humans are the world’s most dominant species. Despite of sharing earth with several other species, everything on this planet is centered to the Human species. Humans succeeded in controlling the planet, because humans are the only species, having advanced language, and ability to cooperate ([Srinivasan, 2018](#)). Humans beings consider themselves as the rulers of the world, as they have one thing superior than other species, is their brain.

But, it is questionable that we humans really deserve to be so. Today humans are at the start of the largest mass extinction event, like dinosaurs. The greenhouse gases are accumulating in the atmosphere, temperatures are increasing rapidly, than our ecological and agricultural systems can adjust. It is undoubtedly that the Earth is in trouble and human beings are the culprits ([Schiffman, 2015](#)).
The current study aims to highlight how the human activities, affects nature badly, and how the nature reacts to it. The study is also intended to reflect, how nature is healing with minimal interruptions of humans due to lockdown in COVID-19 pandemic, and also to draw conclusions what humans should learn from the pandemic COVID-19, which is one of the reactions of the nature Earth.

**IMPACT OF HUMAN ACTIVITIES ON NATURE**

Humans have made an extraordinary growth in economy in past 50 years. In this period, world’s economy has expanded up to four-times. More than a billion men were uplifted from severe poverty, average lifespan increased, and child mortality rate has fallen to a significant extent. But, this economic growth made to pay a big cost to environment.

In last one century, nature has declined to a significant extent, and human activity has made to lay up to 1 million species at risk of extinction. Unprecedented fire in the forests from Arctic to the Amazon, in Africa, and in Australia wasted animals in billions, and converted major areas of forest into a heap of coal. 1970 onwards, vertebrates has declined their average population, up to 60%. In the same span of time, nature has lost over 50% of the Earth’s coral reefs and more than one third of all wetlands. Not to forget, the emission of greenhouse gases continued to spread through their emissions, and aggravated the extreme weather catastrophes, and destruction to the nature (World Economic Forum, 2020).

According to some Earth system scientists, if humans don't stop this destruction of nature, some biomes like grass lands, coral reefs, forests, and deserts may extinct to an irreversible limit. Scientists said that, if humans made 20-25% of destruction of forests, in Amazon, it shall be pushed in state of savannah, and will emit billions of tones of greenhouse gas, will increase droughts and cause huge losses in agricultural production. And with human activities, we have already destructed nearly 17% of forest cover in the Amazon, since 1970 (World Economic Forum, 2020).

**Major disasters by nature**

Experts have appealed world leaders, to take aggressive and immediate measures for reducing emissions causing global warming. But, nothing changed, and the nature showed her reactions, like a three month long flood in the Florida, forest fire across Australia, and heat waves in Europe, and so on (COVID-19 and Climate Change, 2020). COVID-19, is one of such reactions of nature, to warn human species about the catastrophes, he is making by destructing the nature.

**COVID-19, as one of the disasters of nature**

A severe acute respiratory syndrome (SARS-CoV-2), or the corona virus disease 2019 (COVID-19) has originated in China and got spread worldwide within a short period of few months. It was officially declared as a public health emergency of international concern, by World Health Organization (WHO) On 30 January 2020. Similar epidemics of corona virus were evidenced by world in 2002 as severe acute respiratory syndrome corona virus (SARS-CoV), and in 2012 as Middle East respiratory syndrome corona virus (MERS-CoV). This is the third evidence of corona virus as COVID-19, as a wide-scale epidemic in the twenty-first century (Guo, 2019). Cases of COVID-19 reported globally till 13th April 2020 are 17,73,084, out of which 1,11,652 have died. While in India, greater than 9000 positive cases and 308 deaths had been reported by World Health Organization (WHO) (Coronavirus disease 2019 (COVID-19), 2020).

**Possible impact on nature if humans disappear from earth**

On the other hand, some experts have imagined and well explained the scenario of earth, if humans vanished suddenly from planet Earth. They say, within 10 years of human extinction, Side walls will crack and weeds will grow. Hawks and falcons will flourish, and feral cats and dogs too. The population of rats will significantly fall, due to lack of garbage created by people. Same for the cockroach will happen, as they shelter in warm buildings. Cultivated plants will change to their wild origins (Weisman, 2020).

We don’t know, whether this will happen or not, but we have evidenced the changes in nature, and environment due to minimized human activities, and we can predict that nature will heal, if this continues. The COVID-19 pandemic has initiated many behavioral modifications in humans, across the world, in past few months. Entire countries are locked down, railways and airways are almost stopped, malls, theaters, schools, and all things which are not essential for survival are closed. And the Earth started healing. Some examples are given below.

**Decrease in Nitrogen concentration**

Copernicus Sentinel-5p satellite, from European Space Agency, showed atmospheric data, after lockdown. The satellite showed a fall in air pollution, from 1st January 2020 to 11th March 2020. Nitrogen dioxide gas Concentrations, dropped up to 40%, in China. This gas is a harmful pollutant, increasing the risk of respiratory disorders. This gas is emitted...
from vehicles, power plants and industries (Positive Side Effect of COVID-19, 2020).

**Good quality air days in China are back**
China’s emissions, was dropped by 25%, in the beginning of the year due to lockdown. As, factories were closed and coal use dropped up to 40% in six biggest power plants in last 3 months of 2019, in China. According to Ministry of Ecology and Environment, China, The average number of ‘good quality air days’ was up by 21.5 % in February in comparison with the same period previous year in 337 cities across the nation (BBC Future, 2020).

**The clouds of poisonous gases in China disappeared**
The clouds of poisonous gases which were clearly visible over industrial powerhouses are almost vanished, in China (COVID-19 and Climate Change, 2020).

**The level of poisonous gases in China dropped**
Levels of pollution have been dropped by up to 50%, in comparison with the previous year (BBC Future, 2020).

**The quality of water in the canals of Italy has improved**
The quality of water in the canals of Italy has improved, as the number of tourists fell down. Citizens appreciated the clear water, as they saw fishes swimming, clearly. This can also be due to reduced traffic of the boats, leaving the water undisturbed, and sediments to settle, but the water is clear; for no doubt (Traveller, 2020).

**Scientists had an easy access to seismic events**
Less human activities, not only improved air and water quality, but also made clear the way our Earth moves. Scientists reported a fall in seismic noise (the hum of vibrations at the Earth’s crust). Vibrations due to running cars and industrial equipments, makes background noise, which obstructs in the seismologists’ way to detect signals occurring at the same frequency.

Human induced seismic noise dropped by one third, in Brussels. In Belgium, it was dropped by 30%, since lockdown started. This change allowed researchers to find small earthquakes, and enhance attempts of monitoring volcanic activities and similar seismic events (Positive Side Effect of COVID-19, 2020).

**Weekdays showed less pollution levels in Karnataka (India)**
The lockdown in India, lead people to work from home, many schools are taking online classes through various phone applications. All the shops except for essential groceries, malls, theaters, are closed. This lockdown in India, not only helped to curtain down the spread of COVID-19, but also had a great impact on air pollution.

The Karnataka State Pollution Control Board (KSPCB) showed that, weekday had lower pollution levels than weekend. Six out of seven monitoring stations, posted ‘satisfactory’ Air Quality Index (AQI) values, and lower pollution levels (Deepika, 2020).

**Crowded areas did not show improvement in Pollution**
The City Railway Station saw no impact of the closure of establishments and reduction in traffic. On the contrary, the busy junction saw the AQI go up from 86 to 102 to 124. This was the only station that recorded ‘moderate’ levels (Deepika, 2020).

**Crime rate witnessed downward trend in Andhra Pradesh (India)**
As per the report of police in Hyderabad city, in the beginning of summer, the interstate gangs starts crimes like chain snatching, robbery and theft. But in past some days, this was no such activity. Threat of having COVID 19, can be a cause behind this activity. Due to lockdown, people are living inside their homes, cancelling planned summer outings. This can be another reason that robberies of locked houses are reduced. And no major crime was committed in Hyderabad and in the districts in the past few days. But, cybercrime rates are still unaffected (Covid-19 ‘positive’ effect, 2020).

**Water quality of Ganga River in India improved**
The quality of water of Ganga River improved by 40-50%, in Varanasi and Kanpur cities of Uttar Pradesh state. This can be due to decreased amount of effluents put in the banks of river. In the upstream, the dissolved oxygen level was 8.9 mg/liter, and in downstream, it was 8.3 mg/liter. It should be at least 7 mg/liter, to describe it as healthy water.

Industrial wastes, which are dumped in Ganga, causes major risk of water pollution in Kanpur. But, Ganga River has become cleaner now. A tendency to avoid a holy dip in Ganga was in the local priests, as the water was impure. But, now, they are having a bath in Ganga (Positive Side Effect of COVID-19, 2020).

**Positive side of COVID-19 pandemic and a lesson to all humans**
Corona virus has proved a threatening pandemic for all human beings. But, if we try to find, the bright side of this epidemic, it will be the way Earth has...
got a chance to recover. Researchers are witnessing how quickly the environment, nature, flora and fauna, is already rejuvenating itself, and recovering from human induced destruction.

Not only the COVID-19 pandemic, but also the damage to nature, requires quick and effective measures to be implemented, as both the COVID-19 and damage to nature are our biggest challenges to resolve. Both bear equal potential to kill us, and both will have everlasting impact on our future.

But our psychology plays major role here, and that is frustrating. Humans are having a feeling of being a prisoner during lockdown, but not the same guilt during the actions they make, that harms the climate. Although, experts have warned us about global warming, and its consequences, extremities of weather, dreadful events and droughts; these warnings have little impact on policy changes across nations. But, due to corona virus pandemic, we strictly follow the policies of being locked down, not travelling, and coughing into our elbows.

Though being optimist, the experts still not concluded about nature of this pandemic, whether it is limited to a season, it develops immunity in suffered and recovered, and whether the patient will be carrier for life long, with no symptoms. We must understand that, lockdown is a temporary measure, and is doubtful for its usefulness. The path ahead is not clear; hence it is advisable to believe in scientific data, than rumors.

The Earth has already started healing, and it’s all about less human interactions with nature. This simply implies that, the more we follow the nature respect it, in terms of making policies not to harm it anymore, we will still be the rulers of this world by true sense (World Economic Forum, 2020).

CONCLUSIONS

Humans are the world’s most dominant species, because of advantages over other species like developed brain, having advanced language, and ability to cooperate. The human activities, in an attempt to make economical revolution, started the catastrophes like global warming, green house gas emission, pollution, endangered other species, and so on. Nature gives us a sign, about these activities in terms of natural disasters, draughts, and epidemics, etc., which causes mass destruction.

Corona virus pandemic may be one of these signs, and we must learn from it. As less human interactions due to lockdown in corona virus pandemic, have made a good positive effect on the climate, like improved air quality making it breathable, improved water quality making it clearer, reduced pollution, drop in seismic noise, and reduced crime rate. The nature heals itself, with less human interactions, and worsens with more. So, we must make policies not to damage it further, with our interactions. This is the only way; human can be a ruler of this earth, by true sense.

ACKNOWLEDGEMENT

This article was supported by Dr. Shweta Parwe, in charge, research Cell, MGAC. We would also thank to our colleague of our college, Dr. Dheerajsingh Rajput, associate Professor, Department of Rasashastra, for his support with [Referencing style], though he might not agree with all of the conclusions of this paper. We also thank to our family members, especially to Mrs. Vanita Borage, Mr. Janardan Borage, and our beloved daughter, Miss. Ojaswi Borage, to support us in all the way possible and to provide us enough time, during this lockdown to make this article come in existence.

Financial assistance
Nil.

Conflict of Interest
Nil.

REFERENCES

BBC Future 2020. Will Covid-19 have a lasting impact on the environment?
Coronavirus disease 2019 (COVID-19) 2020. Coronavirus disease 2019 (COVID-19) Situation Report - 84.
COVID-19 and Climate Change 2020. The Unexpected Pairing, Environmental Protection.
Covid-19 'positive' effect 2020. Crime rate witnesses downward trend in Andhra Pradesh. The New Indian Express.
Deepika, K. C. 2020. Coronavirus. Air is cleaner with COVID-19 lockdown.
Examples of Natural Selection 2020. The Your Dictionary word generator unscrambles letters to give you a list of words.
Guo, Y. 2019. The origin, transmission and clinical therapies on corona virus disease 2019 (COVID-19) outbreak - an update on the status. Military Medical Research, 7(11).
Positive Side Effect of COVID-19 2020. A Positive Side Effect of COVID-19, Wanted in Rome.
Schiffman, R. 2015. We Need to Relearn That We’re a Part of Nature, Not Separate From It.
Srinivasan, D. 2018. How We Humans Became The Rulers of Earth.
Traveller, O. 2020. COVID-19 is Changing Our Environment.
Weisman, A. 2020. Earth Without People.
World Economic Forum 2020. We have to stop destroying nature - and 2020 should be the year we act.