COVID -19: THE REJUVENATION OF OUR ENVIRONMENT

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ABSTRACT

Destiny is a boomerang, what you give is what you get, within its true sense. We are moving towards development but are also degrading our lives within the unknowns of fancy words like the twenty first century, leading the edge of human life so on. We have been causing enormous damage to our mother earth by polluting the basic pillars of our life (i.e. air, water and land). Rivers, oceans and seas around the world are being filled with chemicals, emissions, plastic and effluents. The air we breathe has become so toxic that it is killing millions of people each year. Oil spilling accidents in water bodies is endangering the lives of the species living in it. Due to high temperatures the main lands are burning and the voiceless animals are being displaced from their homelands because of human wants.

All these activities have not only degraded the environment beyond repair but has also given birth to fatal diseases like Ebola virus, Swine Flu, influenza, to name a few.

The occurrence of Coronavirus pandemic in 2020 and also the international lockdown has caused reduction in economic activities and though this is often a major concern, the ramping down of the act seems to have a positive impact on the surroundings.

This has resulted in a drastic drop in gas pollution, ozonosphere gap and higher cleaner water. The pandemic has tutored all of us a way to be with others and our surroundings. The authors through this paper try explain the positive impact of Covid-19 on our surroundings.

Keywords- COVID-19, Environment, Pollution, Air Quality, Human activity, water bodies, rejuvenation.

Introduction

"The earth is what we all have in common" - Wendell Berry²¹³

We are living in alarming times however it wasn't always the samethroughoutthe ancient times. Let's not go way back let's bring up the time our grand and great grandparents lived in. Have we ever heard from anyone regarding any such fatal disease? Was it simply becausemedical sciencewasn't developed and it had beentroublesometo work out the rationale behind a fulminantinexplicable death? If such was the case did our forefathers live such a lot longer?

While moving towards development, we areadditionally degrading our lives within the unknowns of fancy words just like thetwenty first century, leading edge of human life and so on we are living inperturbing times as we are eating fertilizers in our food, breathing pollution, drinking unhealthful water and that we call ourselves as humans of the twenty first century who are aiming tohead to Mars to search out life whereas spoiling the one here on earth. Human being chucksomething and everything out there on the earth. We are developing financially however deteriorating virtuously.

In India, we have a tendency to say- "Your mindset is that the reflection of your food choice". No matter what you'll eat, it'll impact on your thought method. Human demolition of variety and intake of wild respiratory disorder, Novel Coronavirus²¹⁴ and plenty of additional deadly diseases. These diseases are the hidden cost of economic development. Humans are reaching to non-territorial areas within the name of development and are getting exposed to these deadly diseases. In the wake of covid-19, the world's biggest and most powerful countries are on their knees.

There have been enormous instances where human negligence has resulted in loss of life and irreparable damage to the environment, in general. A few of such instances are discussed below.

www.lawjustify.com

²¹³Brian Brassaw, *Earth Day: 23 of the Greatest Environmental Quotes*, Earth911, August 1 2020, https://earth911.com/inspire/earth-day-23-quotes/

Let's just rewind these 2 cases: One was popularly known as "Bhopal gas tragedy". The Bhopal Gas Tragedy case that happened in 1984 was a catastrophe that had no parallel within the world's industrial history. On the early morning hours of December 3, 1984, a rolling wind carried a toxic grey cloud from the Union inorganic compound Plant in Bhopal, Madhya Pradesh (India).

Huge volumes of toxic gases (Methy-Iso-Cyanate, MIC) were accidentally released from Union Carbide's Bhopal plant that leaked and rapidly vaporized throughout the town affecting more than 500,000 people. The Bhopal disaster has exposed the security system of India. Within the Bhopal tragedy, the security side was unnoticed even at the time of granting of licence for location of the plant at Bhopal in 1969.

The accident most likely began as are sult of a runaway reaction of the MIC with water. One in all the explanations attributed to the present happening was that it absolutely was being handled by associate degree untrained employee. Over 2,000 animals were killed on the night of the accident because of the toxic gas, the trees became barren, and water in the local area is still toxic. The ratio of stillborn babies went up by 300% during this disaster. The tragedy of Bhopal continues to be a wake-up call quickly ignored and heeded. 215

After Bhopal gas tragedy the next case which came into spotlight was Shri ram food fertilizer case²¹⁶. This case was a landmark judgement within the field of environmental activism.

Shri ram Food and fertiliserbusiness, a subsidiary of Old Delhimaterial Mills restricted, was a cameraowned company engaged within the producing of caustic halogen and petroleum gas. An official document petition was filed by social activist professional person M.C Mehta for the closure of Shri ram Food and fertiliserbusiness because it was located terribly very densely urban area of Old Delhi.

While the petition was still unfinished till December 4th and 6th, 1985, a seriousoutpouring of rock oil gas came about from one amongst the units of Shriram Food and Fertilizers restricted within the heart of the capital town of Old Delhithat resulted in one death and several other health problems.

The Editorial of BritannicaEncyclopaedia, Bhopal Disaster, Jan, 10,

^{2015&}lt;a href="https://www.britannica.com/event/Bhopal-disaster#info-article-history.">https://www.britannica.com/event/Bhopal-disaster#info-article-history.

²¹⁶M.C. Mehta v. Union of India, AIR 1987 SC 1086

Two orders were issued to relocate the plant on the 7th and 24th of December respectively under the Factories Act²¹⁷ by the Inspector of Factories and also the Assistant Commissionerof Factories. Shri ram responded by filing official document petitions of itself to nullify the 2 orders and interim gap of its caustic halogen plant manufacturing; alcohol, soap, hard oil, etc. On behalf of the gas leak victims the Legal aid and recommendation Board and also the Delhi Bar Association filed for compensation together withthe initial petition of M.C. Mehta and was additionally pleaded to not permit the closed institution to restart.

The judgement of the case evidenced to be vital for the environment-legal cases to come because it created many necessary stances that are celebrated today. The Supreme Court took a proactive role within the disposal of the case and createdelemental rights of the people by giving wide connotation to right to live in a clean environment under Article-21 of the Constitution of India, it also worked on creating legislations specially directed towards environment²¹⁸ and a Tribunal²¹⁹ to resolve disputes related to environment.

It was absolutely necessary for the Court to deal with the considerations raised once the judgement of Bhopal Gas tragedy, that came simply a year ago, to reinstate the faith of the country in our judicial system.

It was necessary to own such a robust judgement to confirm the general public that industries are going to be held absolutely responsible for their actions and can be penalised for jeopardizing the life of the community and the environment.²²⁰

The global Shut down has brought an unexpected change in our surroundings. If compared to same time, last year, levels of pollution in each country have reduced in abundance. According to the data of the Central Pollution control panel (CPCB), the air quality in Old Delhi (Capital of India) is presently within the *fine* category.

²¹⁷ Section 63 Factories Act, 1948

²¹⁸ The Environment (Protection) Act, 1986, (Act No. 29 of 1986)

²¹⁹ National Green Tribunal established under National Green Tribunal Act, 2010 (Act no. 19 of 2010)

²²⁰ Roopali Lamba, *Case Analysis: M.C. Mehta v. Union of India (Shriram Industries Case)*, May, 26, 2018https://www.latestlaws.com/articles/case-analysis-m-c-mehta-v-union-of-india-shriram-industries-case-by-roopali-lamba/.>

As many as 39 cities have recorded *fine*air quality and 51 cities have recorded *satisfactory* air quality withinprevious months in India. This pandemic has schooledus a way toexist with others and especially with nature.

Humans are isolating themselves to assist others. Production of luxury products are on hold whereas focus is on producing necessities, gloves mask and sanitizers to fight against covid-19. Let's rewind our lives and keep in mind the ideologies our ancestors have left us with. Let's not forget the thumping costwe've paid for our mistakes by violating the rights of different living beings. It is rightly written in the Bible "as you sow, so shall you reap".

Since Humans have decayed the environment like termites, coronavirus came as a reaction to it.

A few of the dishonoring acts of humans are being discussed in the paper below



PRE – COVID PHASE OF OUR ENVIRONMENT

The Human society is at its peril when we talk about our environment. Earth's natural resources have been depleting at a rapid speed. The situation has gotten exasperated in the last few decades. The situation had gotten so alarming that it can be categorized between "Pre - Covid times" and "Recenttimes".

According to United Nations Climate Report, the experts in Marine Biology pointed out a concerning situation. They said that the oceans of the world have lost 16% of its corals because of acidification and bleaching of the oceans. They also stated, that this generation might be last one to see what corals look like. ²²¹

Coral reefs or simply corals are underwater plants which are constructed of "Colonial Marine Invertebrates". These are found in almost all parts of the world, ranging from Aleutian Islands, coasts of Alaska till the warm Tamil Nadu, India. The largest Coral known as the "Great Barrier Reef" is found in Australia.

Corals help in maintaining the ecological balance in the ocean by preventing soil erosion, safeguarding the shores from waves, tides, storms and floods. The corals contribute to the life of the ocean by almost 30%. They are also called as "natures water filtration system" since they consume bits and pieces of various particles from the ocean and make the water clear and clean. They also regulate the Carbon Dioxide levels in the ocean.²²²

For their survival they need a specific temperature and chemical composition. But with drastic changes in the environment and large emissions of Carbon Dioxide in the atmosphere, the temperatures of all the water bodies is rising at an accelerated pace. And this is how the corals are losing their vibrancy and are getting bleached.²²³

²²¹Why corals need our help?Giving coral reefs a future, August. 1, 2020 http://www.secore.org/site/corals/detail/why-coral-reefs-need-our-help.23.html ≥

²²² Coral Reef ecosystems, National Oceanic and atmospheric administration, August 9 2020, <a href="https://www.noaa.gov/education/resource-collections/marine-life/coral-reef-ecosystems#:~:text=Coral%20reefs%20protect%20coastlines%20from,food%2C%20income%2C%20and%20pr

otection.> ²²³Rachel Ross, *What are Coral Reefs?* Live Science, August 1, 2020, https://www.livescience.com/40276-coral-are

²²³Rachel Ross, *What are Coral Reefs?* Live Science, August 1, 2020, https://www.livescience.com/40276-coral-reefs.html

While discussing the ill effects of man on the environment, it is almost inevitable to not discuss plastic as an evil. Our plastic usage has doubled in almost half a century. Plastic, once produced can't go away. It rather gets converted into "micro plastics" and is present in the air we breathe. The situation has gotten catastrophic. Almost 1, 00,000 mammals and 1 million turtles got killed because of plastic disposal in the ocean last year.

By various reports on plastic, few claim that the world's plastic will cross the 2.8 billion tonne mark by 2050 and produce enormous amounts of Carbon dioxide.²²⁴

The holy rivers of India (Ganga and Yamuna) have been polluted since ages. The unchecked dumping of waste from industries, household, sewerage and garbage has resulted in declaring both the holy rivers as one of the most polluted.

The water is so impure that it stinks and has a foam of pollution formed on the top of it. Since river Yamuna has a long coastline, it not only affects the areas connected with Delhi and Uttar Pradesh but also the agriculture. Farmers use polluted water in their fields for irrigation purposes.

It is because of years of dumping of waste and untreated water, that the river was declared

"Highly Contaminated and beyond repair" in 2015 by the Delhi Jal Board. 225

Dumping of plastic and bleaching of corals is not the only way in which humans harm the marine life. Spilling of oil in large quantities also contribute to toxic levels of water pollution.

In 2019, one major oil spill took place in May on the North American coastline. A total of 700 tonnes of oil was spilled due to vessel collision. Apart from that two medium spills were also recorded in South Asia, spilling oil between seven to seven hundred tonnes of oil.

The year 2019 also saw detrimental air quality throughout India, especially in the National Capital. The air levels went from being worse to "horrendous". The situation was so hazardous that it was causing respiratory problems to the people.

²²⁴Forecast of greenhouse gas emissions from the plastic lifecycle worldwide from 2019 to 2050, Statista, August 1, 2020 https://www.statista.com/statistics/1011906/forecast-ghg-plastic-lifecycle-globally/

²²⁵ Madan, *Ugly Reality of Yamuna – India's Most Polluted River*, Planet Custodian, Aug. 01, 2020 https://www.planetcustodian.com/ugly-reality-of-yamuna-indias-most-polluted-river-in-pictures/8311/

The pollution was a result of burning of the crops in the neighbouring states of Delhi. Every year in the month of September and October farmers burn the stubble from their paddy crops in India. This event contributed high levels of nitrogen dioxide, carbon dioxide and sulphur dioxide in the atmosphere.

Other than that vehicular emissions, industrial emissions and construction of buildings became major contributors in worsening the existing situation.

This in turn caused the visibility below 30% and cancellation of flights and trains. Delhi was being compared to a "gas chamber". Schools were shut down and people were advised to wear masks.

In order to curb down the situation, the Chief Minister of Delhi, Shri. Arvind Kejriwal, started the "Odd - Even" scheme to reduce the number of cars on road. The Indian Health Ministry stated that the levels of pollution were so high that they were unable to record the air quality of Delhi and the NCRregion on the Air Quality Index meter (referred as "AQI meter").

The readings of the meter range from 0 - 500 degrees. The pollution was above dangerous mark and recorded at an all-time high of 1900 degrees on the AQI in Ghaziabad and Faridabad, areas of Delhi NCR²²⁶. Last year's pollution took over the Chinese capital of Beijing.

World Health Organization (referred as WHO) said, living in Delhi is "equivalent to smoking 40 tobacco cigarettes" in a day. People were advised to stay indoors especially during dawn and late evenings.²²⁷

The Ending of 2019 and beginning of 2020 marked the start of a new decade. People were highly enthusiastic and positive for the New Year. But for Australia, especially the southern states - New South Wales and Victoria were gulfed in Fire and had the poorest air quality ever recorded.

People of Canberra, inhaled injurious air starting from January itself since the Bushfires had gone out of control. The air quality was 30 times toxic than normal. The skyline of Australia had turn shades of red due to the wildfires.

²²⁶ I.d

²²⁷ Sanya Mansoor, *Air Pollution Turned India's Capital Into a 'Climate Emergency.' It's Part of a Global Trend Killing 7 Million Prematurely Each Year*, Time, November 5, 2019 https://time.com/5718012/new-delhipollution-2019/

All this began in Australia on July 18, 2019 at Lind field Park when the first fire was recorded. The Queensland Fire and Emergency director, pointed out at the early starting of the Fire. The fire erupted due to the dry conditions and loss of moisture in the soil, adding to it was the early fire in central Queensland. Apart from that the all-time high temperatures of Australia also contributed in spreading the fire at an unusual rate.

Till a certain extend global warming was also blamed for the high temperatures and wildfire. The delayed monsoon also intensified the state of affairs.

The situation went out of control in South Wales in the month of November, as a result a national emergency was declared.

This incident continued for a period of 210 days and was declared Extinguished on February 12, 2020. It caused irreparable damage to the wildlife of Australia since it killed 1.3 billion wild animals and burned over 25 million hectares of land. Over 2,500 people lost their homes and 6,000 buildings were destroyed.²²⁸

THE ENVIRONMENT STARTS HEALING

As it is quite evident that man was brutally injuring the environment and the results were unusually awful, immediately with the emergence of 2020, the world stood still.

The state of Wuhan, China declared a national health emergency in December of 2019 due to the birth of "*Novel Coronavirus*" 229.

Coronavirus is a group of ribonucleic acid (referred as RNA), that causes respiratory diseases in human beings. They range from being mild to fatal. There are no vaccines or medication related to it as of now.

China on December 31, 2019 announced the outbreak of novel coronavirus. And said that it is highly contagious and has a human transmission. The virus was soon confirmed to be transmitted through air too.

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²²⁸Brian Resnick, Umair Irfan, Sigal Samuel, *8 things everyone should know about Australia's wildfire disaster*, Vox, August 2, 2020,https://www.vox.com/science-and-health/2020/1/8/21055228/australia-fires-map-animals-koalas-wildlife-smoke-donate

²²⁹Supra note 2.

The cause of origin still remains a mystery. Some say that the virus emerged in the Hua Nan seafood market in Wuhan, China when someone consumed an infected bat. Others said Coronavirus belongs to the family of SARS and MERS and has been existing ever since. The spread of the virus was international and on January 31, 2020, WHO declared a state of "International Emergency". It was declared a "Pandemic" by WHO in February.

Up until now, the global cases have crossed 20.1 million mark and has taken the life of 7, 37,000 people.²³⁰

Since it was highly contagious, the people were advised to stay home and practice social distancing. Every country had initiated a state of "complete lockdown", which meant the closure of all sorts of industries and the life of people stood still. While all the factories, industries, and transport were off, the nature started healing itself.

As soon as the lockdown was announced, the animals were on their own and had started living a free life. They were not being slammed, killed or abused. Trees were flowing since no one was cutting them, forest and the wildlife in it were blooming. The rivers were flowing and the marine life revived.

It feels like people are being punished for their own actions and coronavirus is its reaction. When the world was shut the environment started alleviating from its deteriorated state. A world of difference emerged as a whole. A few of the instances are discussed here.

A recent report from marine scientist of Gulf of Mannar, announced the revival of corals on the coast of Tamil Nadu and Palk Bay. A whopping 85% corals recovered because of lack of human activities and disposition of garbage in the water bodies. The corals at Palk Bay were truly recovered. The corals were able to revive because of low Greenhouse gas emissions and favouring temperatures. ²³¹

²³⁰Covid -19 Coronavirus Pandemic, Worldometer, August 2, 2020, https://www.worldometers.info/coronavirus/

²³¹ Gege Li, *Some corals 'killed' by climate change are now coming to life*, Newscientist, August 2, 2020 https://www.newscientist.com/article/2219405-some-corals-killed-by-climate-change-are-now-returning-to-life/>

Apart from Corals, the water bodies around the world started showing recovery. River Ganga as stated above is the heart and soul of India, within a month, the river's water became so clear that it was declared drinkable.

Various endangered species of turtles like the leatherbacks returned to the beaches of Phuket and Florida, due to lack of human activity for their breeding season. Olive redley turtles emerged in north India. Kolkata Ghats saw the return of gigantic dolphins.²³²

The eastern United States saw Horseshoe crab on the Delaware Bay. Putrajaya Lakes in Malaysia are now blooming with otters, who are considered endangered there. The Malabar Civet cat was seen walking on the road.²³³

A remarkable change was also seen and felt in the air quality all around the world. According to a research conducted by the Columbia University, a significant drop in the levels of both carbon dioxide and carbon monoxide by 50% was seen in New York alone. Around 30% emissions dropped in China and nitrogen dioxide levels by 40 % in Italy, Spain and France.India also experienced an AQI of 93²³⁴. Covid -19 also altered the daily carbon emissions by 17% globally.

An astonishing news saw the light of the day when the UN World Meteorological Organization (WMO) announced that the biggest hole in the ozone layer which was thrice the size of Greenland has healed. This hole in the ozone layer above Artic was the biggest since 2011. It healed and closed as a result of lack of human activities and fewer carbon emissions.²³⁶

Parul, *The positive side of COVID-19 – Dreams and doubts of a green revival!!* Inventiva, August 3, 2020https://www.inventiva.co.in/stories/parul/the-positive-side-of-covid-19-dreams-and-doubts-of-a-green-revival/

²³³Dr Palitha Kohona, *COVID-19 Pandemic Provides Opportunity to Revive the Oceans, IDN* – InDepthNews, August 3, 2020https://www.indepthnews.net/index.php/the-world/asia-pacific/3554-covid-19-pandemic-provides-opportunity-to-revive-the-oceans

²³⁴Air Quality Forecast, August3, 2020https://aqicn.org/city/delhi/mother-dairy-plant--parparganj

²³⁵Earth is healing: Global air quality improved this year due to coronavirus lockdown, The Economic Times: Panache, May 14, 2020,

²³⁶Rafael Cereceda, Largest-ever hole in the ozone layer above Arctic finally closes. EuroNews, April 24, 2020, https://www.euronews.com/2020/04/24/largest-ever-hole-in-the-ozone-layer-above-arctic-finally-closes

SUGGESTIONS

It can be inferred from all the above illustrations that humans are the root cause of environmental degradation. It also shows that if the nature is given a break from human intervention, it recovers expeditiously. But this also indicates that these sights were interim. And as soon as the world resumes, the deterioration will resume too. We need long term methods, which can safeguard our environment.

Few of such strategies are –

Despite having environmental policies, stringent laws for safeguarding and protecting our nature, all this is going to vain because of human negligence and imbalanced actions. The need of the hour is to make the implementation of such laws thorough and uniform.

People know the ill – effects of environment yet they keep on degrading it. Such people should be imposed with harsh penalties, so that others refrain from performing such activities recklessly.

As the world is approaching towards a pointy end, it is imperative that people understand their duty towards the environment, and safeguard it at a more personal level. By themselves reducing carbon footprints, encouraging the huge industries to adopt for environment friendly techniques of working.

We should also curb down our transport usage and opt for using public transport. It has also been seen that people have opted for bi-cycle riding, steps should be taken to initiate eco-friendly actions by everyone.

CONCLUSION

In these days of staying home, all of us have experienced beautiful clear skies, lighter air and astonishing change in the environment like early monsoons and cold breeze even in the month of July. Each such thing has been a result of low carbon dioxide and nitrogen dioxide levels in the atmosphere. The filling up of the largest ozone hole, and the return of endangered species in their homelands. All of these instances clearly show that if given an opportunity, the nature can heal itself. What needs to stop is the unthoughtful actions of the man. This lockdown has taught us that the whims and fancies of our life are not necessary. Life can be lived happily with what we have. For living happily, we don't have to destroy our environment, chop tress, litter or waste our natural resources. If development, progress and evolution come at the cost of destroying the very basis of our life, is it development after all? Will it be worth it in 30 years when we wouldn't even have water to drink or tress to cut? For a better tomorrow, let's focus on the pillars of our lives and safeguard them. Let's make cars, air conditioners, mobile phones a luxury again, if that's what it takes to re-live what we have lost through our environment.



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