

Covid-19: The Environmental Wake-Up Call

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Abstract

The COVID-19 crisis has thrown the world upside down. While many theories may have been postulated regarding the nature of its origin, one theory that needs to be explored is the causal factor of mankind's own destructive actions on nature that may have attracted the evolution of the deadly COVID-19. This article is an attempt to explore the linkage between the deteriorating environmental conditions across the globe and the genesis of the COVID-19. The article will also try to implore upon the world community to remodel its developmental strategy to complement the need of the hour.



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Introduction


The year is 2020. A year that will be etched in the annals of modern history for a long period of time. Caught in its own cobweb of self-destruction and apathy, the whole world was thrown upside down not by any dictator or war but the terror caused by the microscopic, invisible, non-living enemy, the novel corona virus, codenamed COVID-19 by the World Health Organization. In the blink of an eye, the world changed. The world economy is collapsing and our work life balance is disturbed. It's the end of the world

as we know it. The novel enemy is here. Unlike its predecessors (MERS and SARS), which confines themselves to specific region, the COVID-19 knows no boundary. It is spreading like wildfire throughout the globe. The Center for Systems Science and Engineering (CSSE) at Johns Hopkins University (JHU) has so far reported that more than 16 million people (as on July 28, 2020) have contracted the deadly virus¹ (For country-wise cases, see graph below). What went wrong? What have we done to attract by the COVID? It would not be wrong to say

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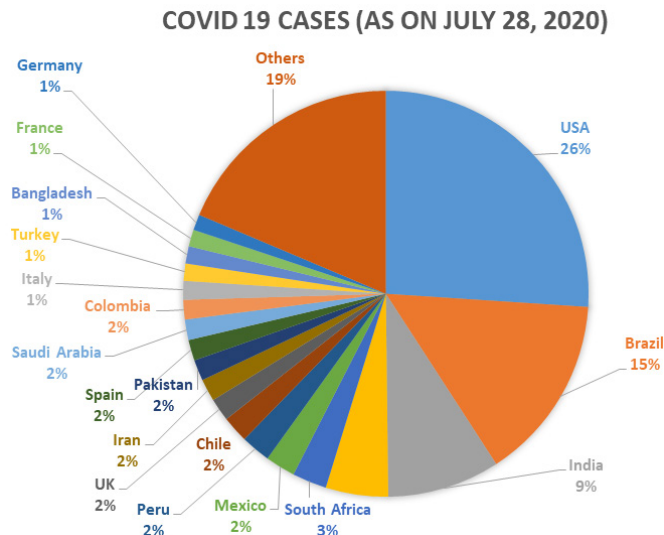
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that we have brought this upon ourselves with our economic greed and materialistic worldview. Amidst the noise, mother nature reacts. We are reaping what

we sow. Mankind is the *alpha* of the COVID-19 virus and in turn, it has made our survival its *alpha* goal.



Sources: The Center for Systems Science and Engineering (CSSE) at Johns Hopkins University (JHU)

Fig. 1

History of Pandemics

Pandemics are the angels of death itself. Throughout the history of civilizations, nothing has accounted for most lives than pandemics. The 6th Century plague of Justinian accounted for the death of almost 50 million people, half of the global population at that time. The Black Death of the 14th Century wiped off close to 200 million people from the face of the earth. Smallpox has caused untold misery to mankind in the 20th Century, even though an effective vaccine had been available since 1796. One of the deadly flu of the 20th Century, the 1918 Spanish flu virus infected one in every three people on the planet. Estimates put the number of casualties caused by the flu in the range of 50 to 100 million people.²

And the tale of the new millennium is no different from the past. We would have imagined that with all the medical advancements and benefits of our times, humanity would be better placed to tackle such pandemics. However, in the first two decades of the 21st century alone, the world has already been affected by the Severe Acute Respiratory Syndrome (SARS) outbreak in 2002 in China, Ebola outbreak in West Africa in 2012 and Middle East Respiratory Syndrome coronavirus (MERS-CoV) in 2012.

As of June, 31, 2020, SARS has claimed 744 lives, with Ebola accounting for 11,325 lives lost and 858 MERS-CoV associated deaths have occurred since September 2012.³ With the exception for AIDS, modern era raging epidemics have tended to be localized in a particular region or area. For example, the 2003 SARS outbreak limited itself to Asian countries, the 2012 MERS was confined mostly to the Middle East and Ebola in 2014 affected mostly the continent of Africa. COVID-19 is a truly global virus capable of surviving in almost every weather condition. It has swept every land and country across the globe. From Asia to Europe to America, no corners of the earth are spared. As per data available from The Center for Systems Science and Engineering (CSSE) at Johns Hopkins University (JHU), 188 countries were affected by the COVID-19 as on July 28, 2020 (see graph below for number of affected countries- recent disease-wise).

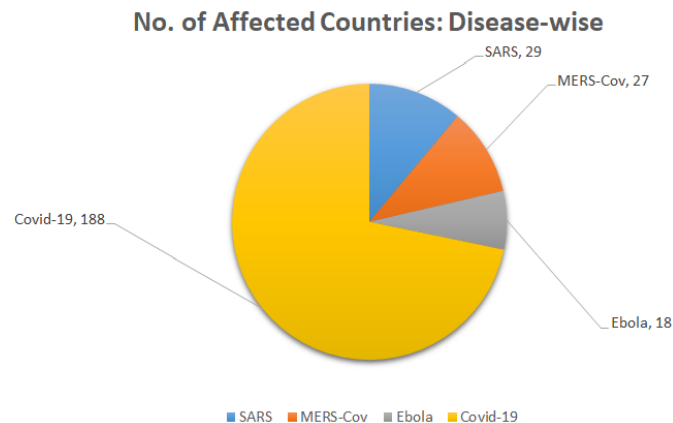
The Current Covid Pandemics: Man And Environment

Warnings

COVID-19 shows how vulnerable we remain and how ill-prepared and poorly-placed *Homo sapiens* are. Over the past 15 years, scholars have been arguing

that a next global pandemic was only a matter of “when, not if”. Articles issuing such warnings were aplenty. On one such occasion, BBC, a UK-based news channel, in 2018 reported a flu pandemic was

only a matter of time.⁴ It would be incorrect to say we were not warned and that the COVID-19 crisis caught us by surprise.



Sources: The Center for Systems Science and Engineering (CSSE) at Johns Hopkins University (JHU, World Health Organization and Centers for Disease Control and Prevention (CDC)

Fig. 2

One of the most influential work on environmental studies, Rachel Carson's book *Silent Spring* published in 1962, warned that the accumulation of dangerous pesticides and chemical toxins throughout the planetary food webs would eventually lead to dangerous consequences for mankind.⁵ Similar warnings can also be found in Garrett Hardin 1968's article "The Tragedy of the Commons. Hadin foretell that man self-centered model of development and human ever-growing population would lead to depletion of natural resources and causes serious environmental degradation.⁶ The same views were also echoed by scholars like Aldo Leopold, Murray Bookchin and Holmes Rolston III. One common argument that can be drawn from all these writing is that- the sacred ecological balance must be restored and life on earth depends on the forbidden element of 'harmony' between all life-forms. Aldo Leopold's rightly contended that 'land is to be loved and respected...' and that "a thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community".⁷ Yet our industries swelled. We did not listen, we filled our rivers and oceans with our uncapped plastic waste. We poisoned the earth with our chemical waste. Everyday our skies grew thicker. We have forgotten to adore, respect, cherish and protect nature's bounty.

As recent as 2015, Ralph Baric, a veteran coronavirus epidemiologist at the University of North Carolina, in his paper in *Nature Medicine*, warned of "a potential risk of SARS-CoV re-emergence from viruses currently circulating in bat populations".⁸ In the same year, Bill Gates echoed the same warnings: "Today, the greatest risk of global catastrophe... looks like this... a highly infectious virus. Not missiles, but microbes".⁹ The current COVID-19 pandemic underscores what the public health community has warned about for more than two decades- the risk of viral diseases capable of spreading from animal to human hosts. The first outbreaks of "bird flu" (highly pathogenic avian influenza- HPAI, subtype H5N1)- raised similar concerns 20 years ago. However, we choose to ignore the signs and the writings on the wall. As a result, we are now faced with another crisis of a different kind; whose likes we have never seen before.

Man and Environment: The COVID Experience

The questions that must be on every abled-minds across the globe at this moment of the crisis should be, how does this pandemic come about in the first place? Is it natural or man-made? The paper will not dare to attempt an answer the latter part of the question simply because the Scientific community

is yet to ascertain that. Instead, it will try to explore the idea that pandemic like the COVID-19 may have been a natural response to man's very own reckless actions. We may have invited nature's wrath upon us by our over-exploitation of Mother Nature.

Throughout the course of recorded human history, mankind has often placed itself in a 'master' position subjugating all the other species under itself. The pages of human history have been diligently dotted with scores of stories of his achievements, glories and his brilliance. In all those pages little importance, if ever, was given to the provider and supporter of our life, the environment. The environmental discourse was never taken seriously. Left to the periphery of human thoughts and consideration, the environment was exploited to meet man's insatiable needs. However, we cannot deny the truth that human life is impossible outside the earth's natural ecosystem. David Lowenthal in his article "Environmental History: From Genesis to Apocalypse" has rightly argued that human history cannot and should not be read without a proper reverence to the environment. In doing so, humanity have lost hundreds of years of environmental lessons.¹⁰

One of Euclid's axioms states, "The whole is greater than the part".¹¹ We, human, are just a microscopic part in that whole. COVID-19 is a stark reminder that we are not the kings of the ecosystem, but mere subjects of the complete whole. Our position in the whole has been aptly summed up by Chief Seattle when he said, "...the earth is our mother. Whatever befalls the earth befalls the sons of the earth. The earth does not belong to man- man belongs to the earth. Man did not weave the web of life- he is merely a strand in it".¹² Our life, is just a link in a chain of innumerable living beings that have succeeded one another on Earth over nearly four billion years. However, as stated in the preceding paragraphs, our actions speak to the contrary.

Man's history of its relation with the environment has seen its fair share of good and bad times. While there have historical lesson of environmental concern and preservation, events of environmental exploitations are also aplenty. Mankind must remember the truth that the foundation of life, including human life, is the interdependence all life forms in the ecosystem. In fact, the fabric that support all life on earth is the

sacred ecological balance without which life would be impossible. Mankind has, however, disturbed this fragile, subtle and sacred balance in the ecosystem. We have changed the face of the world. Despite our vulnerability, we have taken possession of every habitat and conquered swaths of territory like no other species before.

Over the ages, the quest for power has derived to capture psyche of nature. The fruits of modern in the form of uncontrolled industrialization, unplanned urbanization, consumerism ideals and over-population have wreaked havoc on the earth's limited natural resources. However, like Mahatma Gandhi aptly put, "The world has enough for everyone's need, but not enough for everyone's greed". Our capitalist driven economic model has stripped mother earth bare and naked. Consumerism has driven us blind. Our oceans are dying of pollution from our cities, our forest, the lungs of the earth, are burnt to the ground to make way for more economic settlements, our rivers and lakes are dying from our industrial wastes, our skies have become murkier with foul air and smell, our weather are becoming hotter and erratic and even the depths of the earth are not spared from our greed. And there are no signs of things slowing down. Call for a greener and healthier earth have often been met with mere lip service from statesmen and those in power to act. Mere blanketing of such issues has brought us to where we are today, a pandemic of global and historic proportion.

The earth's natural rate of healing has its own capacity and time-span. It can no longer cope with man's geometric rate of emissions of pollution. Mankind has become the 'virus' in the food-web. We have succeeded in disrupting and disturbing the sacred ecological balance that give and sustain life to all living species on the face of the earth. The ecological pyramid is being disturbed to the point of near impossible return. Mankind has forgotten his sacred duty of a keeper of the universe.

Mankind need to remind itself that the engine of life is linkage. Everything is linked. Nothing on this earth- however small and microscopic they may be, are insignificant. Life on earth in itself is a miracle. Every living species crawling the surface of the earth to the depth of the seas has a role to play.

All life forms are linked to each other. What befalls the earth, befalls all life on the planet. And human life is no exception to this sacred linkage.

The COVID-19 crisis have jogged mankind's memory of Newton's third law of motion, "for every action, there is an equal and opposite reaction". Mankind's actions are bound to attract nature's equally, if not greater, opposite reaction. History has testified that great civilizations crumbled to their knees when confronted with mother nature reactions to our actions. The geometric rate at which the environment is being depleted and exploited is bound to attract a natural reaction in the form of pandemic, plagues and famines. And mankind is paying the price for his tyrannical actions.

The COVID-19 was first reported to originate in the now world-famous Huanan seafood market in the Wuhan province of China in late 2019. That will be as far as, the certainty around the COVID-19, we will ever get. The rest is uncertainty and a mystery. No scientists have till date been able to conclusively ascertained the nature of its origin and its ability to adapt across all weather condition. While we may never know how the virus originate, it is prudent to explore the idea that human actions could be one of the factors responsible in creating conditions conducive to the evolution and emergence of the virus. Mankind has broken the linkage of life; it has disturbed the fragile balance of the ecosystem. We have successfully disturbed the harmonious linkage between the life-forms. When the system is broken, disastrous consequences is a given. COVID-19 is a stark reminder that our attempts at deforestation, abusing animals, and not respecting nature's boundaries are the root cause behind this pandemic.

Mankind, thus, needs to rethink its development model. It takes a non-living microbe to overthrow mankind arrogance and send it for a ride. Mankind cannot ill afford to keep on disturbing the sacred ecological balance. No species is more dependent on this balance than mankind itself. Holmes Rolston III's paper, "Is There an Ecological Ethic?" published in 1975 contends that mankind responsibility is not only for the preservation and continuation of its own species, but duties towards the earth's natural ecosystem and the innumerable species on earth- this is our duty ordained by the creator.¹³ Mankind

must, therefore, revisit the laws of nature and learn from it. Nature has provided us with means to sustain our life and it is sacred duty to preserve the means that are supporting our existence on the planet.

Mankind is today at the crossroad. We need a cultural shift in our attitudes and actions towards the earth and all its living species. Anthropologists like Kroeber and Kluckhohn contended that "culture" is the centripetal factor in defining humanity.¹⁴ This cultural value that require one to have a sacred duty towards, and respect for, as expressed differently in the cultural practices of the people at different epochs in history, needs to be reintegrated in our culture's values set. Such environmental ethics can be found in different cultures across the globe. For example, tribes across India have been practicing the practice of conserving the environment through the institutions of sacred groves- the Bisnois of Rajasthan, the *Khasis* of Meghalaya, the Santals of Odisha and the others.¹⁵ Similar examples of traditional wisdom can be found in cultures from all over the globe.

Environmentalists have pointed out that the present environmental crisis cannot be effectively addressed through strictly scientific and technical measures. The present crisis search for a solution need a collaboration of efforts among the legal and political system, the society value system and the scientific world. It is not merely a technological problem, but it involves a whole gamut of man's behavioral system- how we react to the environment issue is shaped by our society, its ideas and values.

According to Steward, every culture must adapt itself to the changes in time especially in the ecology. He further contends that failure to reshape our outlook towards the environment and other life-forms may result in serious problems for mankind itself. According to him, the setting which man live shaped its culture and in turn man shape the environment.¹⁶ Different cultures at different periods in human history have developed within their worldview a sense of care and reverence for the environment. This was expressed in their cultural and religious heritage. For example, the *Khasi* tribe of Meghalaya, holds that God, Man, and Nature form one single and indivisible entity. They believe that a *Khasi* lives with Nature, and Nature lives in him.¹⁷ This close

relationship between nature and mankind, found in various indigenous cultures, highlights the fact that man's societal values require perseverance and cultural base. Man's future progress can only be sustainable when our scientific initiative and cultural efforts joined hands together. However, in modern times these cultural values and ethics have been encroached and ignored by the greed for unsustainable economic development. And the rest is history, a pandemic of epic proportion and a worldwide lockdown unprecedented in history. As on July 28, 2020), COVID-19 has claimed more than 654,327 and it is not showing signs of slowing down anytime soon.

Conclusion

The COVID-19 pandemic has put the world on hold. While we were hidden, amidst the fear, the natural world is thriving, rejuvenating and healing itself. The earth began to breathe and the beaches bore new life that scuttled off into the sea. Free of human activities and disturbance, environment has emerged as the biggest unintended 'Gainer' of this COVID induced lockdown. Reports of such environmental rejuvenation are plenty. While the world is in lockdown, jellyfish and other aquatic life are sighted swimming in the crystal blue waters of Venice's canals in Italy- a sight unseen and lost to this generation. For the first time in decades Mount Kenya can be seen 85 miles away from Nairobi and scores of flamingos are painting Navi Mumbai pink. India's capital, one of the most polluted cities in the world with air quality index (AQI) levels hovering over an unhealthy 200 mark on a daily basis suddenly saw a sharp improvement in its air quality during the lockdown period. Air quality index suddenly dropped to a moderate 100 mark.¹⁸ The skies are suddenly a rare and piercing blue. According to the European Environmental Agency the lockdown has resulted in drops in nitrogen dioxide (NO₂) emissions, a drop of 30% to 60% is being recorded across many European cities.¹⁹ These reported environmental gains cannot be ignored.

As a keeper of the earth, Man needs to Acknowledge, Respect and Preserve the natural world. This harmony between humans and nature must become the rule, no longer the exception. We need to restore the ecological balance not for anyone

sake but our very own survival. Our cultural ethics and values, must start with human concerns for a healthy, sustainable and safe environment. We need to recreate our society and behavior in a way that dramatically reduces environmental stress and rebuild a world that is more sustainable. As earthling this is our responsibility and duty. This is a matter of moral and cultural and survival ethics. This is an opportunity for us to hit the reset button. This will require concerted government policy and action that will need civil activism and cooperation from the people.

Nation-States need to step to the plate and take concrete actions to capitalize and consolidate on the environmental gains visible during the COVID-lockdown. Idealistic as it may sound, states need to move away from power-driven politics and march towards a greener and ethical approach to development. Post the COVID crisis, we need to realize that our idea of business, as usual, is unsustainable. As governments look at getting the economy back on track and announcing stimulus packages, they must be careful to stimulate growth in a sustainable manner. Governments need to use this time to align their economic models to the natural law of the planet.

Mankind must learn from history. One of the deadly pandemics in recent history, the Spanish flu of 1918 lasted for two years spreading across three waves²⁰ (Centers for Disease Control and Prevention). We need not be reminded that we are only at the beginning of the COVID-19 pandemic. This is not the time to be complacent. Inactions may cost humanity dearly. The need of the hour is to revisit our lost ecological traditions and cultures that protect our environment. This is a once in a life-time chance, to change and reinvent a better and healthier earth. I will end my article with a quote from the 2008 motion art picture, *The Day the Earth stood still*, "... we're on the brink of destruction and you're right. But it's only on the brink that people find the will to change. Only at the precipice do we evolve. This is our moment. Don't take it from us...". We might be the *omega* of the world we will leave behind, but we will be the *alpha* of a new world we found, a world based on respect and affection for Mother Nature.

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Conflict of Interest

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