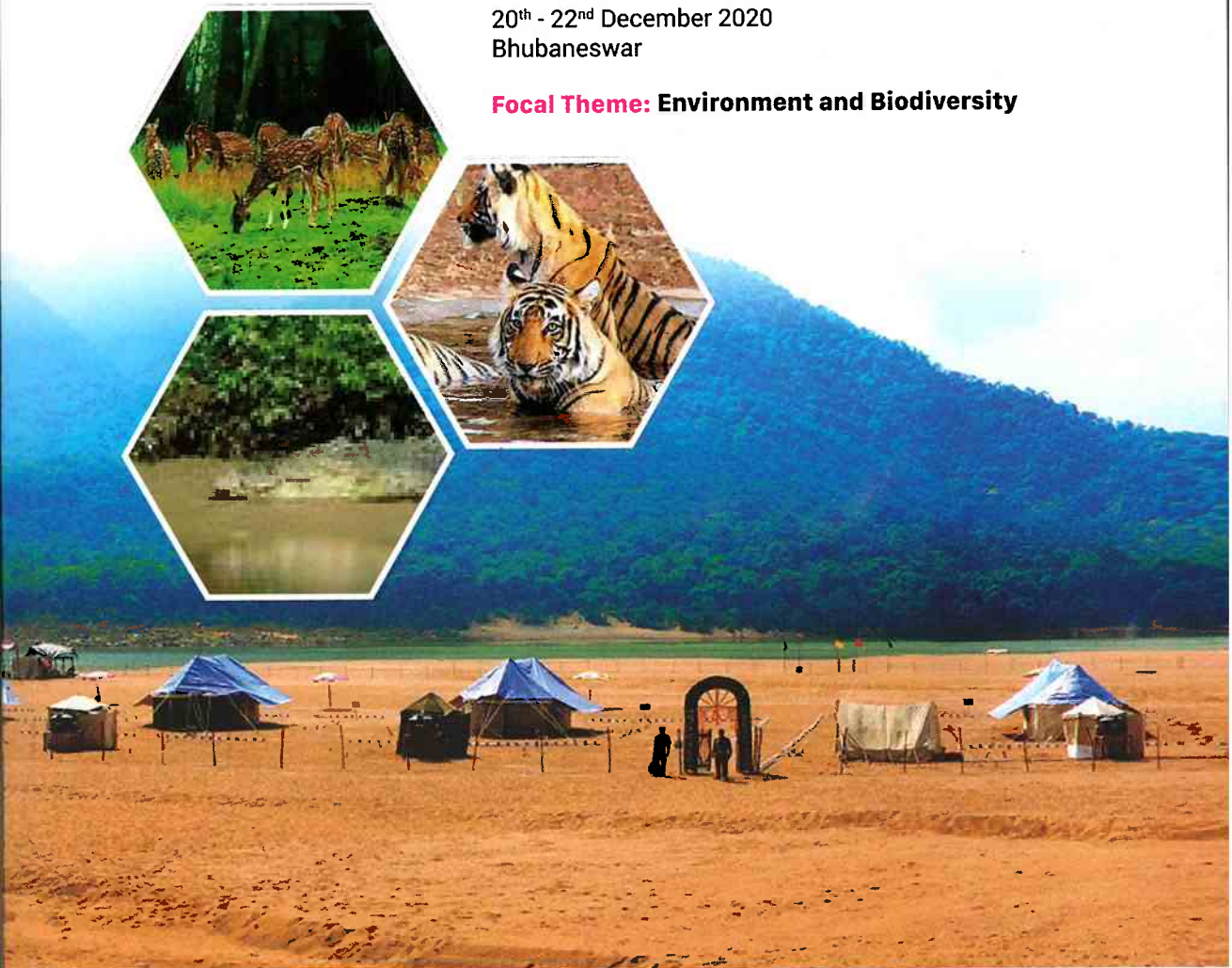


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# Climate Change, Pandemic and Biodiversity

**Meenakshi Padhi**

*Xavier University Bhubaneswar*

*Mail Id: ur20032@xustudent.edu.in*

## INTRODUCTION:

Deva Bhoomi Veda Bhoomi Bharat was once recognized for its dense and lavish forests. Great forest. Universities like Nalanda and Takshashila were set up in the lap of nature to impart knowledge and Wisdom. Unchallenged works of Medicine (Ayurveda) and Meditation (Yoga and Pranayam ) were Taught to lead a happy and healthy life. The great Indian sages like Sushruta, Charaka , Vyasa deva, Valmiki, Patanjali lived in forests and have created and constituted the unique master pieces like Ramayan, Mahabharat, Vedas and Upanishads for the wellbeing of mankind. The primary sources of eco-system, environment and biodiversity are inherited from the great works of our ancient sages. "Vasudhaiva Kutumbakam" philosophy preached by the sages, advocated for the co-existence of animals, plants and microorganisms which is now referred to as Biodiversity. A clean, green and environment was the only concern of the people in ancient India. But that view of glorified India has remained for us as a myth and a misty past. The eco-system and biodiversity in India has degraded ever since the people became more selfish and self centered. Mushrooming of industries all around has converted forests to concrete jungles. The vision of 21<sup>st</sup> century India will see helpless wanderers marching towards a dark future.

Mother nature has gifted us all her valuable and precious resources of mines and minerals, paregoric oceans, polar ice caps ,evergreen forests, varied fauna and flora filled with natural beauty and elegance.. The whole world is profiting from these gifts since time immemorial. Modern science and technology is only 200 years old but its activities have affected thousand years' old eco-system and biodiversity of the world to such an extent that it has raised great concern for the mankind.

A big question has appeared before us is how to tackle the environmental issue and maintain biodiversity. For the sake of extra comfort and maintaining luxurious life style we are ignoring environmental issues. With the passage of time we have injected unnatural urbanization, mushrooming of industries and large scale deforestation. Industries are now regarded as the key source of environmental pollution and degradation

of biodiversity, and are peeping up so swiftly that by 2030 many terrestrial and aquatic species are likely to vanish (7 animals got extinguished in 2019 only).

If we pollute air, water, and soil that keeps us alive and well, and destroy the bio-sphere that allows natural system to function, no amount of money will save us. If by human actions like the deforestation, the vast amount of CO<sub>2</sub> is released, it will have an adverse affect on our planet's temperature. To protect and preserve the bio-diversity so many seminars and symposiums have been organized to create

awareness among public at local, regional, national and international level. Nations, advocating conservation of environment have been experiencing the graveness of the continuously deteriorating biodiversity but have not done enough for conservation of the same. UNO has taken up many steps to safeguard healthiness of atmosphere such as, air, water, soil and earth. Leading programs like UNEP (United Nations Environment Program), UNDP (United Nations Development, Program), UNFCCC (United Nations for Climate Change Convention), CBD (Convention on Biodiversity), IUCN (International Union for Conservation of Nature), IPCC (Inter governmental Panel on Climate Change)

WMO (World Meteorological Organization) have come forward to save the mother earth and mankind. Industries have squeezed every piece of natural beauty, nature's presence and existence by expanding Concrete jungles. The marine and water sources are becoming highly polluted with the release of huge amount of industrial effluent and agricultural intoxicated water. To one's surprise half of the water body in Poland is unfit for industrial use. USA in her turn is now unable to provide a suitable Habitat for the aquatic lives. Deforestation is going on rampantly and illogically, thereby giving rise to ever growing chances of major floods, erosion of topsoil, big havoc by acid rains, depletion in Ozone layer, global warming and many more. It is reported that every second 115 nos. of trees are

being felled around the globe. Research studies have shown that in USA per 5000kgs per head of CO<sub>2</sub> per annum is mixed in atmosphere; for China it is 200kgs and for India it is 160kg. The CO<sub>2</sub> produced from smoking one Cigar needs 6 trees to absorb. To maintain the eco-system and biodiversity at least 35 percent of forest land is required as against only 11 percent at present. We are at the beginning to see the tragic consequences such as the global warming, greenhouse effect, melting of polar ice-caps, increase in sea level, desertification etc.

## LOSS OF BIODIVERSITY AND PANDEMIC

The latest export report from the Intergovernmental Science-Policy Platform on Biodiversity and Eco- System Services (IPBES) establishes the links between biodiversity loss and the increase in pandemic risk factors. The current COVID-19 crisis, which has its origin in microbes carried by animals, and the previous global health pandemics all have one thing in common and that is, their emergence is entirely driven by human activities. As per Dr Peter Daszek, Chair Person, IPBES, "human activities that drive climate change and biodiversity loss also drive pandemic risk through their impacts on our environment. Changes, in the way we use land, the expansion and intensification of agriculture, and unsustainable

trade, production, and consumption, disrupt nature and increase contact between wildlife, livestock, pathogens and people. This is the path to pandemic." Dr Aaron Bernstein, Interim Director on Climate, Health and Global Environment, at Harvard

University is of the view that though the exact cause of COVID -19 not known, it has started through contact with animals. He suspects SARS have been transmitted from bats to civet cats to human beings. The present pandemic has created an opportunity for people to recognize that we can make positive changes to prevent climate impacts on diseases.

### **SUGGESTED STEPS TO OVERCOME THE PROBLEM**

To do something for climate change, Dr Benstein has suggested to promoting the control and prevention of about 70K wildfires annually in USA representing many millions of burned acres that produce more “greenhouse gases” than human do in decades. Research on COVID-19 pandemic and how it relates to climate change has suggested that well-sourced, equitable health systems with a strong and supported health workforce are essential to protect the mankind from health security threats including climate change.

The austerity measures that have to be taken are to support and recover the economy through promotion of health and environmental protection. The experts estimate that the cost of risk reduction to prevent pandemics is 100 times less than the cost of responding to such pandemics. They have also warned that future pandemics will emerge more often, spread more rapidly, do more damage to the world economy and kill more people unless there is a transformative change in global approach to dealing with the preventive aspects of infectious diseases. Guided by the Paris Agreement, different countries have set their own climate targets NDC (Nationally determined contributions) to curb carbon emission. China and India are on track to meet their NDCs, but USA and Saudi Arabia are not doing enough for their self interest. “It is not too late to change the policies and practices at a global, national, and local level so that the risk of future pandemics and impacts of climate change are minimized,.” said Sejal Warah, PC,

WWF, India. It requires a clear vision for the future and we want, strong political will and difficult trade offs. We cannot afford to continue losing biodiversity at current rate when we know that human wellbeing is intertwined with the health of the nature.

People around the globe should take oath not to encroach further into nature, and the governments of all countries should have high degree of commitment for the same. A mere negligence in conserving bio-diversity may lead to climate change further aggravating chances of coming into contact with new pathogens carried by wildlife putting humanity at greater risk of pandemics like the COVID-19. The problems pandemics, climate change and biodiversity are intertwined and they cannot be overlooked only to satisfy luxury and lavish lifestyle of humans.

There are many exciting and demanding challenges ahead for the environmentalists to address the issues pertaining to loss of biodiversity. In the eco-system field, there are alternatives and advanced technologies which need to be explored. There is also exciting prospect of moving towards a clean and green environment, conserving the biosphere. There is an urgent need of reducing the gap between the demand and availability of ecosystem and biodiversity for the wellbeing of humans. In the environmental areas, there are challenges of limiting or reversing the impact of human existence in an economically viable way. We must deal with all these challenges with our knowledge and innovations. The needs and desires keep expanding exponentially. However, the problem of sustaining civilization's continuing advancement without harming the environment need to be addressed at the earliest.