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IMPACTS OF IMPERIALISM, CAPITALISM, AND ANTHROPOCENE IN THE COLONIAL WORLD

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ABSTRACT

Environmental history is a new emerging field in academia. However, historians before the 1970s did not include nature as an essential aspect of analysis, especially in the academic field, due to the lack of primary sources that did not give them evidence of the nature aspect. So, we can say that natural elements were missing in the primary sources before the 1970s. However, when we look at the Colonial Archival data, we get evidence of deforestation, illegal exploitation of different resources, and the conquest of islands for the expansion of imperialism.

Keywords: Environment, Sources, Colonial, Archival, Deforestation, Exploitation, Imperialism, Resources

1. INTRODUCTION

The beauty of environmental history is that it brings nature into the analysis framework. Hence, human impacts were always there, but before the 1970s, we did not want to include human-nature relationships into our consideration, i.e., the story of Lake Valencia in Valenzuela. The writing or understanding of the environment is different from that of the historians if we compare it with that of the geographers. Anthropocene is a new way to signal that times have changed. Human beings exert tremendous power over the Earth's biogeochemical system, life on Earth, and the Earth's surface. All these activities increased, especially during the time of capitalism and imperialism. Humans have affected the earth's water, carbon, oxygen, and hydrogen cycles in the last few decades. By looking at all these, we can say that a new phase in the earth's history has come in which human activities have surpassed the old activities of the planet. Human activities have left the world where it had never been during the Holocene.

Anthropogenic environmental change has inspired some geoscientists to claim that the Holocene is over, and they added the term Anthropocene to the earth's history[1]. They cited the evidence of global average temperatures and how the surface covered by ice gradually decreased, and, on that basis, they said that the new era of the Anthropocene has come. If we look at the earth's fossil or rock records, it marks the beginning of the Anthropocene, and Golden Spikes marks a difference in the fossils found above and below a transitional layer of the earth. Similarly, environmentalist magazines like Earth Island Journal and the New Yorker, scholars, scientists, and the public are adopting the term and concept, concluding that we are now in a new period in the history of our planet. Antonio Stoppini and Vladimir Vernadsky recognised the biological processes that changed the earth's surface, and the concept of the Anthropocene emerged during the 20th century. Both said that human action powerfully affected distributions, populations, and the existence of many forms of life. Jan Zalasiewicz noted there are different Anthropocene, and their emergence depends on various times[2]. There is a widespread consideration that we are now passing through a unique phase of human history. In it, we can include the whole climate system and activities of human beings. Historians debate that when the period of the Anthropocene started, they divided it into four phases: the invention of agriculture, expansion and colonisation by the Europeans, the start of the Industrial Revolution, and the first testing of the atomic bomb. So, by seeing all that, we can say that we are already in the Anthropocene. Many historians called the Anthropocene the Capitalocene, but Ian Angus, a Marxist historian of the Anthropocene, did not like the term Capitalocene, and he mainly talks about the bio-physical Anthropocene and socio-ecological phenomena. He spoke of the qualitative change in Earth's most critical physical character in the bio-physical Anthropocene. In the socio-ecological phenomenon, he said it was a period of economic and social change during which the Holocene ended and the Anthropocene started. Different ideas were related to the term Anthropocene, and it became noticeable only in the second half of the 20th century when environment and ecology gained the attention of historians.

Some of them said that the period of the Anthropocene started in the late Pleistocene. They claimed that vast reductions in the numbers of herbivores allowed forests to overspread former grassland, due to which carbon was sucked out of the atmosphere and into the biosphere, which led to the weakening of the greenhouse effect and the cooling of the earth. The invention of iron in the Indian Sub-Continent around 1300 to 1000 BCE led to the clearing of forests in the Gangetic plains. It promoted agriculture, which led to second urbanisation in India. So, we can say that the injection of carbon dioxide was also there, but its impact was less on the atmosphere. Similarly, China, around 500 BCE, cut and burned enough forests to inject sufficient carbon dioxide into the atmosphere to enhance the greenhouse effect; similarly, China and Southeast Asian countries cultivated enough rice to release enough methane into the atmosphere to strengthen the greenhouse effect.

In 1492, sailors' voyages began to redistribute species among the continents, producing enduring changes in the biosphere. The migration of cattle, sheep, pigs, and goats to America after 1492 left a durable signal in the fossil records. Europeans have created vast settlements of their kind in the South Temperate Zone and North Temperate Zone but not in the tropics because in the tropics, they died due to droves of fevers, and their agriculture techniques, crops, and animals did not prosper in the hot tropical regions. Here, we can say that they first tried to conquer areas that were similar to temperate zones. That's why they transported humans, animals, pathogens, microorganisms, and weeds into the temperate zone. Due to that, we can see the transmission of syphilis from the new world to the old world. All the crew members of the old world were not capable of resisting the microorganisms; that's why most of them died due to syphilis. Previously, the people of the old world were unaware of Syphilis; that's why they called it the disease of the Napier, but in the 1520s, it was given the standard name Syphilis. When we look at the accounts of Columbus from there, we can conclude how Syphilis was transmitted from the New World to the Old World. Casas and Oviedo both state that Columbus brought Syphilis back from America to Europe[3]When Casas asked the natives of America about Syphilis, they said that it was known to them and that they were less affected by it than the people of the Old World. So, Europeans tried to control the people and nature of the other world, and in that process, they mutated the microorganisms of the old and new worlds.

Alfred W. Crosby Jr. said there were no headaches, no diseases, and no sickness before the conquest of America by the Europeans, but ecological changes and migration brought the Black Death to Europe. Here, isolation is fundamental,

[1] J.R McNeill, "The Anthropocene and the Eighteenth Century", *The Johns Holkins University Press,* vol – 49, No – 2, 2016, page no. 117.
[2] Dipesh Chakraborty, *The Climate of History in a Planetry Age*, Delhi, Primus Book, 2021, page no. 157.
[3] Alfred W. Crosby, "The Early History of Syphilis: A Reappraisal ", *American Anthropologist*, vol – 79, 1969, page no. 222.

and those living in isolation suffer the most. Old-world diseases infected the new-world people in large numbers, and they targeted women the most. If we talk about the immunity of the new world people, their immunities were low compared to old world people. That's why there was a decrease in population, mainly due to smallpox. Smallpox in the New World was a new disease, and it was misdiagnosed with other diseases. Las Casas also said how the New World was infected with smallpox when they came with the contract of the Spanish people[4]. J.R. McNeill, in 'Mosquito Empire, Ecology, and War in the Greater Caribbean, 1620–1914', told the story of the Caribbean regarding plantations, which the Spanish mainly did[5]. It was the mosquito empire that was the leading actor in the history of the Caribbean, and due to that, the Spanish suffered from yellow fever or malaria, and many of them died from it. That's why other Europeans were not able to establish their plantations there, and they also did not develop a resistance to the mosquitoes that the Spanish had developed. So, we can say that the resistance to disease among the Europeans also varied, and with the plantations of coconut trees, they tried to change the ecology of the Caribbean.

Pro. Vipul Singh, in his work 'Cyclones, Shipwrecks, and Environmental Anxiety: British Rule and Ecological Change in Andaman and Nicobar Islands, 1780s to 1900', said about the ecological change in the Andaman Islands[6]. In it, we can see that the British wanted to take Andaman mainly for their strategic location, and through it, they tried to control southeast Asia. They also found sulfur there, which can be used as gunpowder. They deployed a large number of convicts there, and through that, they wanted to assimilate the people of India with those of Andaman. Let's look at the work of Vishvajit Pandya and Sita Venkateshwar. They deal mainly with the Andamanese rituals and cultural practices and the contact histories of the locals with outsiders. They utilised the convict workforce to clear the forests. With the help of ecological exchange, ecological transportation, and reclamation, they induced rice cultivation and plantation economies in the Andaman Islands. By introducing all of these, we can see the impact of cattle-borne disease, migration, and demographic change in the Islands. They considered local inhabitants as cannibals, and with the introduction of convicts, they wanted to assimilate them into the main channel. So, by looking at all these, we can say that the British also impacted the ecology of the islands, and its impact can be seen in the ecology of the islands.

Let's look at the ice cores, glaciology, palynology, and dendrochronology. They all suggest that the annual average expedition of the Dutch to the Arctic Sea ice started expanding after the mid-1590s. The key engines of atmospheric and Atlantic Oscillation, Atlantic Meridian Overturning Circulation, and El Nino Southern Oscillation and their influence on the atmosphere, hydrosphere, and biosphere can be noticed by the Dutch logbooks. Logbooks also gave information on wind velocity, wind direction, a vessel's speed and course, and how they affected the journey of the Dutch in the oceans. In 1594, the usual summer helped the first expedition in the Arctic, but later, in 1595 and 1596, they faced sea ice and frigid temperatures, which blocked access to the northeast passage[7]. During the expedition, they hunted polar bears and whales for their fat, which they rendered into oil, soap, leather, or wax, but they did not understand the danger they posed. As their numbers collapsed in the 18th century, the food web of the Arctic Sea changed, and we can also see a change in the ecology. Here, we can say that due to economic pressure, they tried to explore the untouched areas, but in that process, they left their footprints and disturbed the ecology as well as the food web of the oceans. So, we can also see the impact of the Anthropocene in the Arctic.

Mustafa Akdag cited several examples of growing peasant resistance and rising violence in the Ottoman Empire. Still, he did not combine resistance with that of the drought, animal deaths, and demand for sheep. Ecology and economic pressures had been building for over a decade, and the people were left starving with the coming of the drought. The rapid increase in population, limited agricultural possibilities, and immigration from the lawless district had put the region in the domain of crisis for decades. We can say that the ecological and economic pressure conditions fueled the rebellions. The Little Ice Age brought a new phase of extreme weather to Ottoman lands, just as destructive as in the past[8]. A series of volcanic eruptions intensified the general cold from 1597 into the longest run-off wet years in the past six centuries. In the Ottoman region, plants were also exchanged from Columbia, resulting in the most robust clusters of

[4] Alfred W. Crosby, *The Columbian Exchange: Biological and Cultural Consequences of 1492*, West Port: Duke University Press, 2003, page no. 10.
[5] J. R. McNeill, *Mosquito Empires: Ecology and War in the Greater Caribbean, 1620-1914*, Cambridge University Press, 2010.
[6] Vipul Singh, "Cyclones, Shipwrecks and Environmental Anxiety: British Rule and Ecological Change in the Andaman Islands, 1780s to 1900s", *Global Environment,* vol no- 13.1, 2020, page no.5.
[7] Dagomar Degroot, *The Frigid Golden Age – Climate Change, the Little Ice Age, and the Dutch Republic, 1560-1720,* Cambridge University Press, 2018, page no. 10.

El Nio activity, which led to destruction in the River Nile. Due to this, Greece suffered serious families and epidemics in 1619 and 1621. An earthquake, heavy storm, and plague broke out in the capital, and diseases afflicted sheep in the countryside. All the calamities mentioned above led to the demographic crisis in the regions. The Kayseri area lost about half of its population. The Ottoman turmoil was not a conflict among political and economic interest groups but a global crisis caused by ecological pressures and little Ice Age climate events. We can say that the worldwide revolutions and rebellions were neither signs of rising capitalism and modernity nor stagnation and delay in Asia. Still, they were a sign of the vulnerability of pre-industrial societies worldwide, mainly due to climate change. But if we relate this to the Indian situation, we find that climate change's impact was not at all there, and Mughal was flourishing very well. Here, it should be noted that the effects of capitalism, imperialism, and climate change cannot be the same throughout the world.

Antony Reid talked about the 17th crisis in Southeast Asia. He mentioned political turmoil and war, floatation in the price of commodities, a decrease in the population, urban stagnation, and climate change due to a reduction in temperature. Due to the emergence of the United East India Company of the Dutch (VOC) in Indonesia, economic foundations were lost in Southeast Asia, and they could not cope with the pressure of the Europeans. We notice that pepper prices dropped drastically in the 17th century, and Southeast Asian growers began to return to subsistence crops. They established monopolies over nutmeg, mace, and cloves, and in return, competition in the trade was eliminated. The Dutch fought terrible wars for control of the clove-growing islands, and in the war, they eliminated a vast number of people, which caused a decline in the urban centres. There, we can see the effects of climate cooling on harvests, El Nino, and droughts in Java. With droughts, we can relate disease morality and famines, and there was also a failure of rice cultivation due to the uneven distribution of rain. So, we can say that the impact of the VOC can be noticed in the ecology and the pattern of crops introduced mainly for subsistence. If there was a failure of rice cultivation in Java, then it stopped the release of methane into the atmosphere, and as a result, there was a cooling effect on the climate. We cannot deny that the impact of VOC was not there in Southeast Asia's ecology; it hampered that region's ecology and economy.

Similarly, we can notice the evidence of a general crisis in China, Korea, and Japan. If we talk about the general situation, drought, famine, disease, and rebellion could be included. It was only during the 1630s and 1640s that economic, social, and political problems in various parts of East Asia were included in such a way that would justify the use of the term general crisis to describe them. Economic difficulty in China and Japan was there, and it was mainly due to changes in the climatic conditions. Heavy taxes were also the reasons for the destruction of agricultural practices. Here, the impact of Europeans can be seen, due to which East Asia's socio-economic, political, and ecological landscape has changed. We can notice atmospheric circulation that significantly altered global wind and rainfall patterns, resulting in a change in trade patterns, vegetation, and crops. We can also add volcanic dust to the atmosphere; both H.H. Lamb and John have noted that volcanic dust veils in the stratosphere, which would decrease the absorption of incoming radiation. Volcanic dust in the atmosphere also destroyed the ecology, which in turn destroyed the economies and populations of the regions.

Between 1635 and 1666, Western Europe and East Asia formed the heartland of the 'General Crisis'. We can also see political disruption in the Russian and Ottoman empires, but this disruption was absent in the Mughal Empire. Between 1635 and 1666, significant revolts and revolutions were common in the Americas, Asia, and Africa due to a decrease in population. As a result, there was global cooling, and instead of a typical summer heat wave, there was a cold, and the behaviour of the sun and the seasons completely changed. Le Roy Laduri was the first to try to relate crop failure to the change in climate. So, he was the first one who wanted to link the crisis with the environment, but later he tried to link it to the shortage of labour. He attempted to establish an accurate chronology of fluctuations and took the help of "human archives" and "natural archives." In the human archives, he has included narratives of the 17th century, numerical data of the Europeans, pictorials, and epigraphies. He has included ice cores, glaciology, palynology, and dendrochronology in the natural archives. With the help of both, he tried to explain the cold and drought around the world. If we talk about death in the new world, it was mainly due to the contract with the old world. Due to a decrease in population and an increase in afforestation, we can see that carbon storage in the atmosphere will reduce, bringing a cooling effect in the 17th century. So, European expansion and colonisation in the 17th century brought dynamic change to the earth and considerable changes to the ecology.

Crutzen said 1784 was the birth date of the Anthropocene because it was the year of a notable advancement in James Watt's tinkering with coal-powered steam engines. Regarding the temporary industrial revolution, coal became a necessary fuel. Steam engines could first convert coal's chemical energy into heat and kinetic energy; due to all these factors, British coal consumption more than doubled between 1750 and 1800. There was a slow acceleration of fossil

fuels and human population growth in the 18th century, but that does not mean the Anthropocene was not there. There was a high acceleration of fossil fuel use and human population growth, deforestation, and biodiversity decline, which means that the impact of the Anthropocene was more significant in the 20th century. The Dust Bowl was the name given by Donald Woster, and in it, he mainly talked about the drought-stricken southern plains of the U.S. and how they suffered severe dust storms in the 1930s, which promoted Okie migration. It was the land given by the French government, and during that time, it was not suitable for cultivation or habitation. It was due to the impact of capitalism that it made cultivation possible, but at the same time, it also brought natural calamities to that area. So, the culture of capitalism led to this natural calamity. Here, it can be seen that excessive use of chemicals alters the ecology of the surroundings and hurts vegetation and populations.

McNeil said the Anthropocene started in 1950 because of a tremendous increase in fossil fuel energy, population growth, urbanisation, tropical deforestation, carbon dioxide emissions, fertiliser use, ocean acidification, etc. Still, we cannot say that the Anthropocene started in 1950 because, as we know, it increased over time, and with the increase in time, its impact on the ecology also increased. So, we can say that 1945–1950 was a period of "great acceleration within the Anthropocene''; its effect was more significant than the previous one. In "Silent Spring", Rachel Carson talked about DDT's impact and how it affected air, land, and water. The spray of DDT killed all those tiny mosquitoes, and in this way, it disturbed marine life. DDT also enters the fish, and through the fish, it enters the humans. Similar was the case of Minamata disease, in which the impact of mercury can be seen in humans in the form of accumulation. So, from the points mentioned above, we can say that the effects of the Anthropocene were more significant after the coming of imperialism and capitalism, and the role of the increase in population was more important in it.

2. CONCLUSION

We can conclude that the Anthropocene was not a sudden process, and we cannot relate it mainly to imperialism and capitalism, but it was the result of both. The significant impact on the environment began only with the coming of imperialism. As a result, we can notice how soils, slopes, vegetation, hydrology, distribution of diseases, climate patterns, animals, and migration of people started, which hurt the ecology. Due to imperialism, it assimilated the species of two different zones, i.e., the temperate and the tropical zones, which hurt both species and zones. Further tremendous increases in fossil fuel energy use, population growth, deforestation, carbon dioxide and sulfur dioxide emissions, and the use of DDT and Fertilizers added to the negative impact on the whole world, due to which the issue of climate became a challenging task for the world as a whole. So, the Anthropocene provided a new way of looking at imperialism and capitalism.

CONFLICT OF INTERESTS

None.

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REFERENCES

Atwell, William S. 'A Seventeenth Century 'General Crisis' in East Asia', Modern Asian Studies 24/4 (1990): 661-682.

Chakrabarty, Dipesh. The Climate of History in a Planetary Age, Delhi: Primus Books, 2021[Chapter 7].

Crosby, Alfred W. 'Ecological Imperialism: The Overseas Migration of Western Europeans as a Biological Phenomenon', in Global Environmental History, J.R. McNeill and Alan Roe eds., London and New York: Routledge, 2013, 166-179.

Crosby, Alfred W. 'The Early History of Syphilis: A Reappraisal', American Anthropologist, 71(1969): 218-227.

Crosby, Alfred W. The Columbian Exchange: Biological and Cultural Consequences of 1492, Westport: Duke University Press, 2003, first pub.1972 [Chapter 2].

Degroot, Dagomar. The Frigid Golden Age: Climate Change, the Little Ice Age and the Dutch Republic, 1560-1720, Cambridge: Cambridge University Press, 2018 [Chapter 2].

Parker, Geoffrey. 'Crisis and Catastrophe: The Global Crisis of the Seventeenth Century Reconsidered', The American Historical Review, 113/4 (2008): 1053-1079.

Reid, Anthony. 'The Seventeenth Century Crisis in Southeast Asia', Modern Asian Studies 24/4 (1990): 639-659.

Singh, Vipul. 'Cyclones, Shipwrecks and Environmental Anxiety: British Rule and Ecological Change in the Andaman Islands, 1780s to 1900s', Global Environment 13 (2020): 166-194.

White, Sam. The Climate of Rebellion in the Early Modern Ottoman Empire, Cambridge: Cambridge University Press, 2011 [Chapters 7 and 8]