



Decolonizing Ecology: Design for Eco-State in Bangladesh

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Abstract

This paper seeks to analyse the ecological problems of Bangladesh. The underlying reasons beneath the genealogical problems of ecological crises in Bangladesh are significantly connected with the legacy of colonial governmentality. This investigation discusses how marine, river, forestland, and urban ecosystems have been colonized in the Bengal Delta. It also critically investigates the impact of colonizing ecology. Colonization has crucial effects on the ecosystem. It is impossible to establish ecological justice without dealing with these problems. Our perceptions of history, progress and development are still influenced by colonial knowledge/power. As a problem-solving method of ecological crises, this paper suggests recommendations for an eco-state in Bangladesh.

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**Original Article****INTRODUCTION**

The impact of the discrepant socio-political relationship with our ecosystem is becoming increasingly catastrophic. As a result, despite having adequate environmental policies and laws in our country, these are not being implemented. Avoiding the significance of the symbiotic relationship that humans have with the environment, an ultimate persuasion to control the environment is constructed into our State structure and social insight. In the research of social history, the issue of the human relationship with the environment has not been taken very seriously. Historically, the relationship of the people with the environment in the Bengal delta has always been dynamic. The environment is related to our history and life. The natural environment is very important for the occupation and employment of the people of our country. The landscape and a sufficient number of rivers play an influential role in the way of life, communication and occupation of the people. During the Mughal era of Bengal, the environment played a very important role in the development of the weaving and muslin industries in our country. Muslin was produced based on the humidity of the aquatic land and climate (Hossain, 2020).

However, this green living environment tends to get worse over time. This decline has a profound and significant relationship with colonization. It was a new

transforming era of ecology. As Debjani Bhattacharyya prescribed, this new transformation of the ecosystem began in the nineteenth century and was "involved in drying the city and the economic project of profit-making" (Bhattacharya, 2018, p.21).

In colonial governments, the symbiotic relationship between humans and the environment was not important. On the contrary, this regime was largely destructive to the environment. The goal of colonization was always to control human beings as well as its nature. Approaches and management toward ecology existed in the colonial period and still exist in this structural way. Colonial discourse, epistemology, and governing processes significantly dominated our present ecological management which are coercive. They are instinctively detached from ecological development. Colonial rationality, knowledge and disciplinary rule form that knowledge. Intervention in natural resources, economic development, and structural exhibition have become the sole destination of human development and progress. Colonial history is not just a history of socio-political and economic transformation; it is also the process of colonizing ecology. Colonizers formulated a new knowledge for governing river, land and ocean ecosystems. The central investigation of this research is to identify the ecological management problems inherent from colonial rule and the decolonization of the



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epistemology and management process of ecology. By avoiding pre-colonial romanticism, we intend to seek a decolonizing ecology. As Achille Mbembe points out, decolonizing ecology and establishing planetary consciousness is the politics of the future world (Mbembe, 2021). Since environmental issues are now a major threat to the survival of the Bengal Delta's life system, it is essential to analyze the current environmental issues in Bangladesh from historical and philosophical perspectives. Additionally, the findings of this study attempt to outline the potential solutions that could assist policymakers in designing an eco-state while viewing problems from a different angle.

THE OBJECTIVES OF THE STUDY

The main objectives of this study are:

1. To identify colonizing problems in ecological management;

2. To understand the decolonizing knowledge about environmental management;
3. To outline the process of establishing an eco-state and society in Bangladesh;

MATERIALS AND METHODS

This study was conducted with the "content analysis" method. A content analysis is a technique of studying different text, article, audio or video files. For this study, various texts containing the key concepts "Capitalocene", "Decolonization", "Eco-state" and "Anthropocene" have been studied to draw a sketch for an eco-state; discussing the ways of decolonizing ecology. This study used the qualitative content analysis method, which involves categorizing or "coding" words, themes, and concepts within texts and literature. It is a primary study employing secondary data. The table below shows how this method (content analysis) has been used in this research.

Table 01: Methodology- Relevance and Technique

Texts/ Literature	Words, Concepts and Themes	Relevance to the Study	Category of Analysis
Val Plumwood- <i>Feminism and the Mastery of Nature</i>	Eco-state Anthropocentric	Designing an eco-state	Action/ Practices
Achille Mbembe - <i>Out of the Dark Night: Essays on Decolonization</i> (2021)	Planetary consciousness Planetary politics.	To understand the politics of the future world through decolonization and establishing planetary earth systems	The conceptual analysis to realize the relational aspects between <i>planetary consciences</i> and <i>planetary politics</i>



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Debjani Bhattacharyya - <i>Empire and Ecology in the Bengal Delta: The Making of Calcutta</i> (2018)	Soaking ecology	Knowing colonial triumph over nature	The conceptual analysis to decode the history of the colonial ecology of the Bengal delta
Benjamin Kingsbury - <i>An Imperial Disaster: Bengal Cyclone of 1876</i> (2018)	Imperial disaster	Disaster is not merely "natural", but deeply interrelated with human action in colonial Bengal	The relational analysis between coastal ecology and its effect on the Bay of Bengal
Dipesh Chakrabarty - <i>The Climate of History in a Planetary Age</i> (2021)	Planetary consciousness World history and politics on a planetary scale	Developed planetary consciousness. This consciousness evaluates world history and politics on a planetary scale	The conceptual analysis of capitalocene to relate to the <i>anthropocene</i> era
Aditya Nigam - <i>Decolonizing Theory: Thinking across Traditions</i> (2020)	Decolonizing theory.	Breaking out of the colonial mode of production of knowledge and establishing a framework for decolonizing ecology	The conceptual analysis of <i>decolonizing theory</i> to outline the decolonizing ecology

The data was organized, analyzed and interpreted according to the objectives of the research. The theoretical framework was developed through observation, and the geographic region studied was a portion of British Bengal that is now Bangladesh.

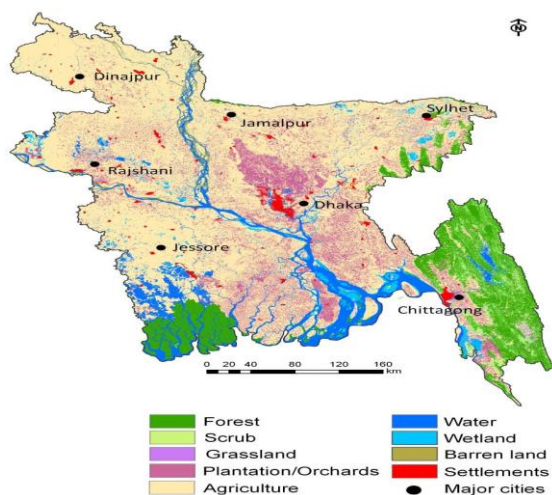


Fig. 01: Map of Bangladesh (C Reddy et al., 2016, p 25)

COLONIZING ECOLOGY: A CONCEPTUAL UNDERSTANDING

Colonizing the Marine Ecosystem and the Bay of Bengal

In the case of colonial history, the importance of maritime ecology cannot be ignored. At the beginning of colonization, the ocean was open to all. Every State had an equal opportunity to collect fish, salt and pearls from the marine ecosystem (Schmitt, 2006). Later, the competition for control and possession of ocean resources made ocean management complicated. Marine ecosystems were systematically "thingified" during colonial rule. For economic development, growth and progress, the sea appears as the inert



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agent. Marine management has been used only as a tool for economic and capitalocene development. That continuity is on-going so far. The dominant relationship of human aspiration with the sea is convertible. For controlling the marine ecosystem various anthropocentric projects and capitalocene development have played an influential role in the gradual destruction of the ocean and its ecological effectiveness. Geographically, Bangladesh is not only a riverine country, but is also a sea-adjacent country. The geographical location of this region was taken into consideration by colonial rulers due to the abundance of naval power in the Bay of Bengal and its potential to become an important centre for the expansion of world trade in the future. To control the natural abundance and natural course of the Bay of Bengal, the colonial rulers established a city called Calcutta and established their capital there. The Bay of Bengal was one of the most important means of capitalocene development at that time. The diacritic expansion of maritime trade in collaboration with the British led to the emergence of a new Bania¹ class in Bengal. A company established relations with the Bania class for economic development utilizing their knowledge of the local market

(Rahman, 2018). Throughout colonial rule, the sea lanes of the Bay of Bengal played an important role in the economic development of the British and Bania class. For them, the Bay of Bengal was merely a means of capitalist development which had no biological entity.

Colonizing the River Ecosystem

The hydraulic and riverine concepts were always significant in the Bengali lifestyles which have been reflected in our literature and various genres of songs. The humid ecosystem of the Bengal delta gradually degraded as a result of colonial rule. Rivers and lands were systematically separated through bureaucratic decisions and plans (Bhattacharya, 2018). Prior to this, the relationship of the river with the land was a flowing, natural and spontaneous one. The Bengal landscape always maintains its mobility. Sometimes chars wake up in Riverine areas. It was difficult to make boundaries between land and water. Because of repetitive intervention and the division of land along rivers, the wet ecosystem becomes arid. British plans were limited for the Bengal delta in relation to economic dynamism and infrastructural development. At the beginning of colonial rule, Calcutta

¹ Banias were local brokers and representatives of European merchants in the eighteenth and nineteenth centuries. Among the Anglo-Indian society and natives, a Bania was the man whom a

European merchant hired to act as his broker and agent. Almost all of these Baniyas were upper caste Hindus, especially Brahmins.



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was a tidal swamp. Debjani Bhattacharyya describes land-water relations as not based on segregation rather as coexisting (Bhattacharya, 2018). "The absence of any clear demarcation of where the river ends and land begins" maintained human-land-water relations from a long time (Bhattacharya, 2018, p.123). In 1860, the most part of the Bengal delta become dry and its soaking ecology gradually disappeared (Bhattacharya, 2018). Centralised bureaucratic systems through their development policy rapidly interfered with the river ecosystem. The British administration was always concerned about imposing a fixed division between the land and water.

Introducing boundaries between land and water areas by colonial administration affected its navigability; it divided the river from the city. The Bengal River system was a caprice before the interference of British management (Bhattacharya, 2018). Colonial management shifted ecology from a natural system to a trespass system. Colonial ecological transformation knowledge in Bangladesh is still influential in that, we plan cities based on dry culture.

During the reign of the company, in the 1830s, the underground water level of the city of Dhaka was 18-22 feet. Compared to this the measurement of the water level has decreased by 140-160 feet (Iqbal, 2020). The main reason for this decrease is the decline of the river ecosystem. Seeing the depth and

communication system of the river Buriganga, James Taylor compared Dhaka to "Venice of the West" (Taylor, 2001, p.40). The Buriganga river was considered important at the beginning of British rule. The river system was at the centre for commercial activities in Dhaka. Subsequent establishment of the railways reduced the importance of the river system. In the case of gradual development in Dhaka city, the significance of the river and riverine development was disappearing. In the post-independence period of Bangladesh, river ecology was further avoided in development and environmental management. A continuation of these colonial insights in the post-colonial period has further accelerated an environmental catastrophe. The figures below represent how the 'development' approach is continuing the colonial legacy of ecological degradations.

Colonizing the Forestland Ecosystem

Although deforestation was present before the arrival of the British, it reached an unprecedented level during colonial rule. Railways spread rapidly in British India in the nineteenth century. India reached the highest position in the field of rail communication development among the British colonies. Raw materials like wood sleepers, pebbles and coal were required for the establishment of railways to be used as fuel, and were immediately collected from the environment. For railway construction,



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it became essential to colonize the forestland ecosystem. Deforestation

was an inevitable result of colonial 'development.'

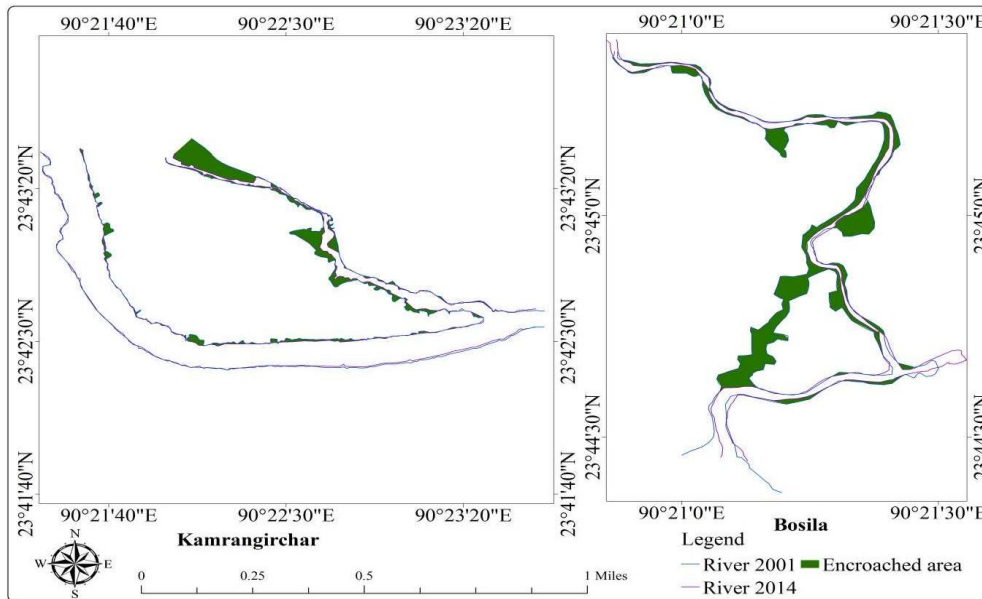


Fig 02: The Encroachment area of the Buriganga River Canal: 2001-2014(Chowdhury, Bhuiyan and Kabir, 2015, p.1560).

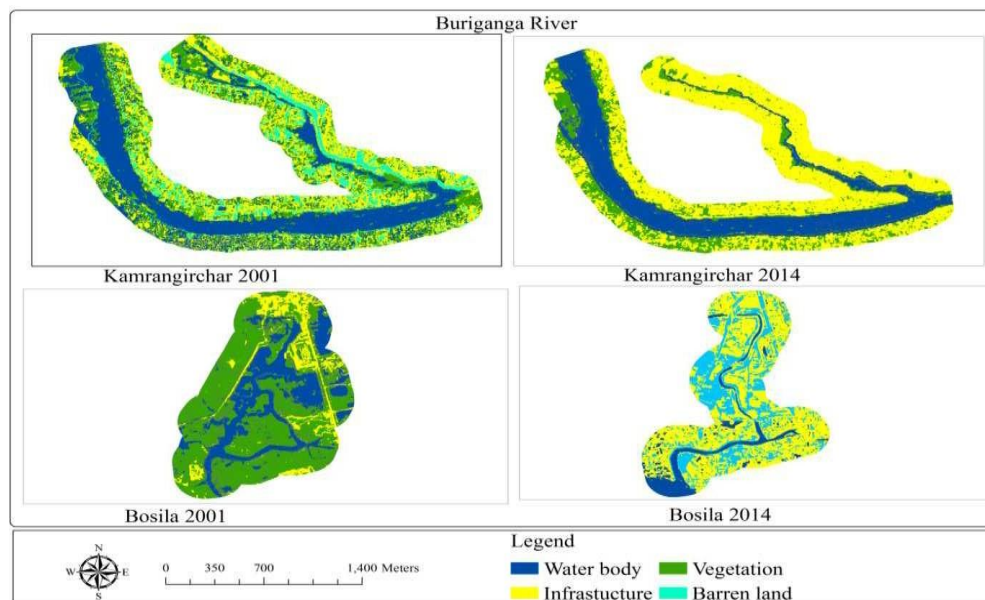


Fig 03: Land use of the Buriganga River: 2001 -2014(Chowdhury, Bhuiyan and Kabir, 2015, p.1562)

In British India thirteen hundred miles of railways were under construction from 1860 to 1861, where about eight hundred sleepers were needed for every mile of railway. The average

"effectiveness" of these sleepers was "eight years" (Das, 2015, p.53). This huge supply of timber came from destroying the forest. Railways were built in the Madras province of



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northern India, where most of the planks that were used for making railway slipper were collected by cutting wood from the forests adjacent to the Himalayas.

Another cause of colonizing the forestland ecosystem was for earning capital by expanding cultivated land. The Sundarbans forestland area was also significant for the British government. Benjamin Kingsbury identified two insights of the British rulers towards Sundarbans. These are "moral as well as agricultural implication" (Kingsbury, 2018, p.29). Revenue collection was also involved in cultivation and deforestation. In this case, Sundarbans became a lucrative land source for the British government. From 1770, the company and the Zamindar (a form of the landed aristocracy or landowners in Bengal and Bihar established by the British during their rule in India with the purpose of collecting the land revenue) started their deforestation mission over Sundarbans (Kingsbury, 2018).

In the post-independence era, Bangladesh also adopted this colonial legacy towards ecology. At present, forests including Sundarbans are being used as a means of development. The hilly areas are being occupied by corporate persons who are building different resorts or restaurants there. For the sake of development, the life-nature saving parks are being destroyed. Dhaka's *Osmani Udyan* has already been destroyed in the pretext of establishing a park. A plan has also

been formulated to build the country's third safari park at the Lathitila forest in Moulvibazar. Environmentalists have expressed their concern about the loss of biodiversity there. This will affect around 350 families of Lalchhara (Deshwara and Chowdhury, 2021). The establishment of coal power plants next to the Sundarbans is causing severe damage to the ecosystem there. Industrialization and development activities in Bangladesh are bringing new exclusion and dispossession. The Rampal coal-fired power plant, like previous projects, uses conventional and non-conventional methods of exclusion, dispossession, and displacement: forced and unforced. Power plants such as Rampal may re-fix land control distributing the benefits of land transfers to a few while leaving out the poor and powerless (Mahmud, Roth & Warner, 2020). Alber Mankin addressed the dispute between the Forest Department of the Bangladesh government (FDBG) and the forest-dwelling (FD) Garos (Modhupur sal forest) in his writing "The Rights of Adivasis on Land and Forest." This conflict between FD and FDBG was exacerbated when the Master Plan of 1993 and the Forest Act of 2000 were approved defining government claims over forest lands while rejecting Adivasi (indigenous) land ownership rights. The Adivasi community claims that their interests were overlooked during the development of the Modhupur National Park. The Adivasi believe this is a forced occupation of lands and



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resources that they have been using for generations (Kubi, 2012). The administration's attitude towards the Sundarbans and forest ecology is still

influenced by colonial 'improvement' discourse. The following figures prove the mentioned issues.

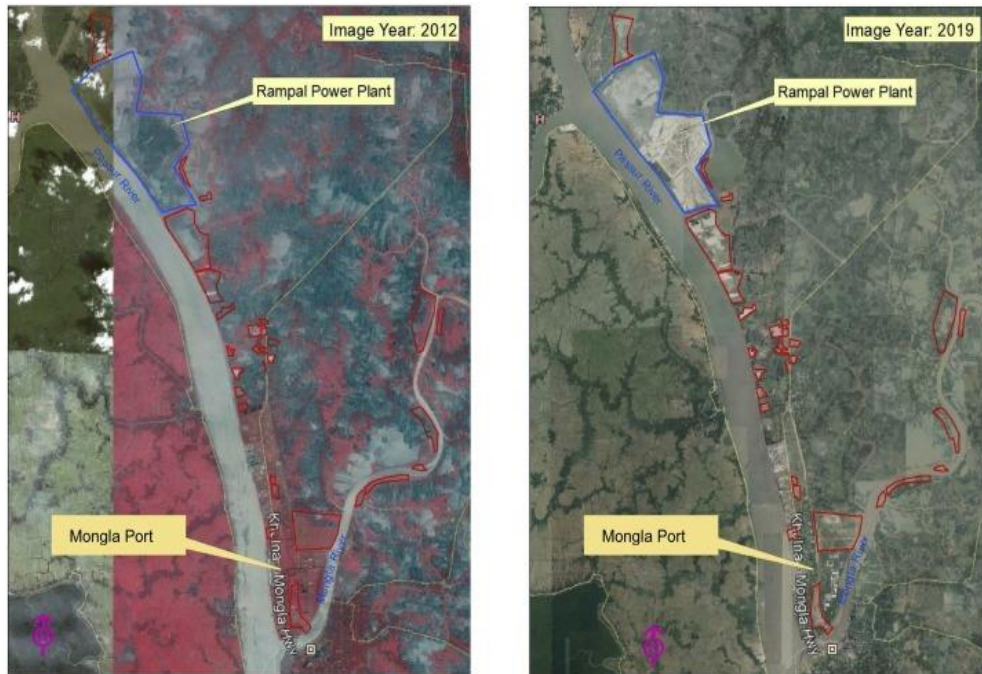


Fig. 04: Land transformations in the Rampal power Plant area for industrial setups (Mahmud, Roth and Warner, 2020, p.6)

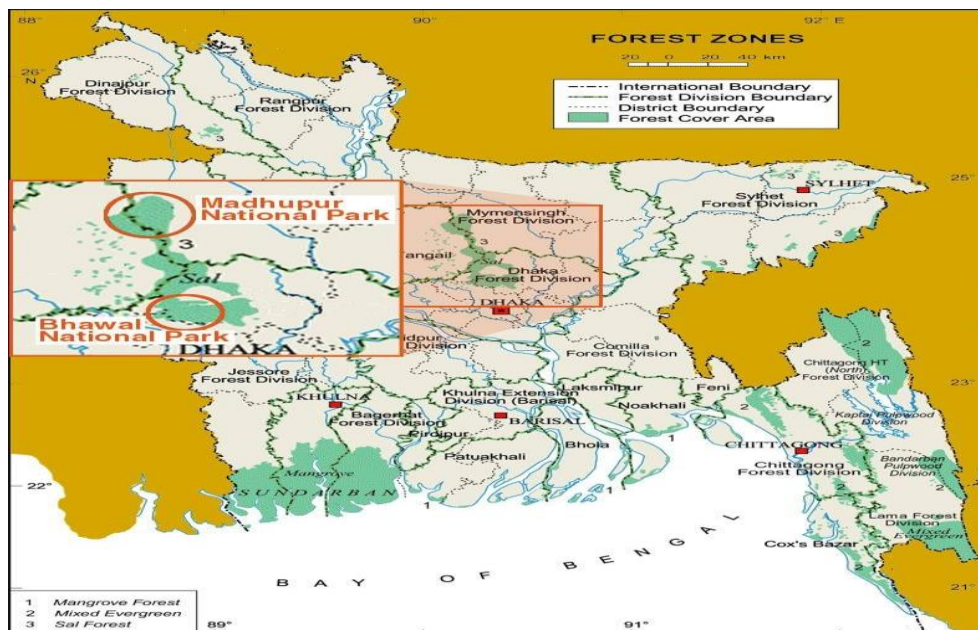


Fig 05: Map of Madhupur National Park (Rahman and Vacik, 2010, p.195)



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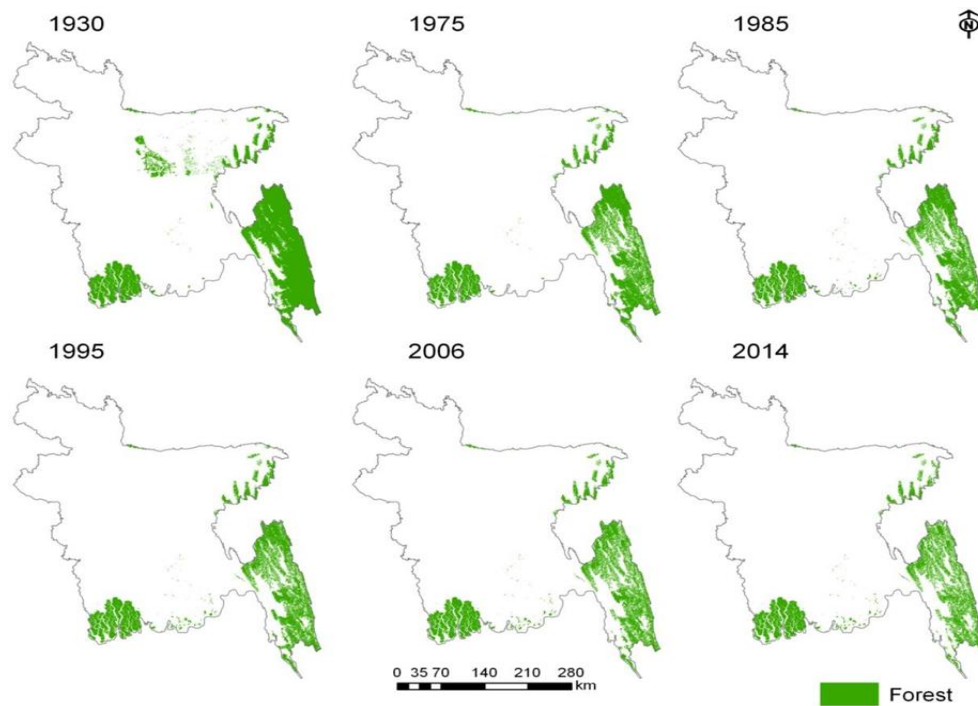


Fig 06: The forest cover of Bangladesh: 1930, 1975, 1985, 1995, 2006 and 2014 (C Reddy et al., 2016, p. 26)

Colonizing Architecture and Urbanisation

Mughal Subedar Islam Khan was the first to move the capital of Bengal to Dhaka, considering the geographical importance and natural resources of Dhaka city. From then, a river-based city system was developed around Dhaka where a field of commercial potential was created. However, the Mughal rulers did not formulate an overall urban planning structure for the city of Dhaka. The British rulers were the first to take this step. In Mughal and British rule, their architectural style influenced the city of Dhaka. The Mughal rulers' purpose of displaying political power was grossly reflected in their architectural style. The British rulers also used their architecture as a symbol of power.

The style of architecture that existed in Bengal during British rule was called the Indo-Saracenic style. It was a combination of European and Mughal architecture. In the aftermath of the Sepoy Revolution, the British rulers introduced this style of architecture in imitation of the earlier Mughal rulers in order to make their rule more reasonable. It was an amalgamation of Islamic and Indian architecture with Gothic revival and neoclassical styles (Afzal, 2018).

Although the city of Dhaka was not at the centre of British rule, some fetching architecture gradually developed. Curzon Hall in Dhaka is one of the Masonics that reflect Indo-Saracenic architecture. Others are Northbrook Hall, the Dhaka Medical College and the Salimullah Muslim Hall. However,



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in these architectural styles, the geographical location, climate, and nature of the region were not taken into consideration.

In the case of colonizing - urban management and unbridled division of rivers and lands were the centres of the British governance system. Labib Hossain, a researcher in the field of the history of architecture and post-colonial theory, significantly explored the source crises of flood and urban management with colonization (Hossain, 2020). The construction of embankments to control cities' water obstructed the navigability of the river. Instrumental intervention of the natural flow of water had resulted in a dry land and an arid city. This urban management system still results in constant ecological mismanagement which leads to the gradual disappearance of the significance of living in cities.

In urban areas, water has become a mere commodity with no ecological essence. Colonial urbanization has created a conflicting relationship of water with the city. The construction of embankments to control the water results in a consequence in the water being unable to flow out easily. An artificial flood is created during the rainy season. At the same time, due to the lack of rivers and adequate land, the instinct management of water absorption has decreased in urban areas. Bangladesh bears the brunt of the embankment's success in South Asia as a flood-control tool. The

construction of embankments by India in the border areas of Bangladesh, such as the Ganga river embankment, is the cause of the damage in the life system in these areas.

THE IMPACT OF COLONIZING ECOLOGY

The Birth of Capitalocene Development: A Genealogy

The colonial rulers were very confident that they would be able to establish economic growth along with dominance over the environment by using modern technology like railways. The history of the ecology in India under colonial rule was such a junction; at that stage a lot of forest had been destroyed. The Sepoy revolution of 1857 resulted in the British rulers changing their governing strategy to rule out the possibility of an early revolution. Instead of collecting huge amounts of revenue from the public, they focused on the trade relations of British India. They became interested in developing capital in India through private investment and the foreign export of goods (Das, 2015). Modern steps are being taken in the field of transport management for this reason. Lord Dalhousie, the British Governor General, ardently represented the development of India with the Railways. He believed that the establishment of railways would increase social and economic development in India (Das, 2015). Karl Marx was also optimistic about evolving development and capital in



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India through the establishment of railways. According to him, the construction of railways would make India a true pioneer of 'modern industrialization.' He further said that the advantage of this would be the elimination of the hereditary "division of labour" (Marx, 1853, p.217). To the colonial rulers as well as the sociologists or philosophers of that time, economic development was the measure of civilization or progress. The insight of these thinkers was that the improvement of a society could be determined by only the development of its economy. Marx thought that the East would one day become like the West. Capitalism would be developed through the abolition of the Asiatic mode of production. Marx's idea of development and progress has a linear view of history. Marx saw the development of capital in the light of historicism which is part of the European epistemological tradition. According to Marx, a "country that is more developed industrially only shows, to the less developed, the image of its own future" (Chakrabarty, 2008, p.7). European historiography had played an important role in Marx's idea of India. Historical observation was an important part of his philosophy. He remarked, "Our method indicates the point where historical investigation must enter in" (Chakrabarty, 2008, p.62).

Dipesh Chakrabarty remarked on historicism as "It was a mode of thinking about history in which one

assumed that any object under investigation retained a unity of conception throughout its existence and attained full expression through a process of development in secular, historical time"(Chakrabarty, 2008, p.xiv). Historicism believes that something actually develops over time. Dipesh Chakrabarty presents a contemporary non-secular time in his book '*Provincializing Europe*.' Non-secular time was used as a source of economic development in the colonial era. "Imaginative" beliefs of subaltern people intercede in the relations of agrarian production (Chakrabarty, 2008). The genealogy of every idea and its development is related to its place. For this, Chakrabarty critique Marxist; underestimate the idea of the local (Chakrabarty, 2008, p.xvi).

Historicism constructs the concept of the development of history in a way where Europe is first and then the others. This philosophy of the history of the West limits itself to a certain path of the evolution of society. Colonialism structurally presents this thought for the colonized. The problem arises when the whole of Western epistemology, through colonization, unquestionably implements its values for the East. The continuity of colonial epistemology tells us a "waiting room of history" to become like them. From sitting where we are waiting for our development is certainly called capitalocene development. With the empire that once developed itself, they have come up with more incisive



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models of capitalocene development in the aftermath of World War II. Following these models, the developing or underdeveloped countries will develop their condition.

The idea of capitalocene development has become an obstacle to the progress of the entire Earth and life system. Considering economic and capital-oriented development as the progress of society as a whole, nature became their central end. Influential aspects of capitalocene development have consistently existed in post-colonial Bangladesh. In addition to constructing a dominant relationship with river and forest ecosystems, our goal is now towards marine ecosystems. Our insight on the potentiality of the maritime economy is driven solely by the notion of economic progress.

At the Stage of 'Anthropocene Time'

Geologists are talking about entering a new era of human species. They named it the Anthropocene era. Geochemist Vladimir I. Vernadsky and Aleksei Pavlov first introduced the term 'Anthropocene' in 1926 in their book of Biosphere (Chakrabarty, 2021). Human beings entered this period through the transformation and evolution of the Earth as a result of the unbridled activities of man. Bruno Lathore identified this era as a "New Climate Regime" (Latour, 2017, p.123). The human species entered this anthropocene era after the end of the Pleistocene and Holocene eras. In this era, the highest impact of man over the

environment increased. The concept of anthropocene helps to draw attention to the influential behaviour of humans over the environment (Chakrabarty, 2018). Due to this influence, sea levels are rising and global warming is increasing. This is the result of the unrestrained and uncontrolled influence of human beings over the environment. The tendency of the anthropocene civilization to colonize and establish empires is particularly responsible for entering this era. Colonization, the industrial Revolution, and the discovery of the atomic bomb are just some of the significant events that led to the entry into anthropocene.

Although the anthropocene has an important relationship with deep history, the sources of economic and political hegemony of human history are now more involved. The Anthropocene is no longer only a scientific issue, it is also a moral-political issue. Through utilising millions of tons of fossil fuels, humans have gradually expanded their geological agency. Colonization as well as human intellectual influence have largely contributed to the expansion of the geological agency. Human species "became geological agents very recently in human history" (Chakrabarty, 2009, p.207) when industrialisation and colonization was going on.

Anthropocene insight was present in colonial knowledge and governance and it affected the colonized countries.



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Humans transform the Earth to control it. The insight of colonial and enlightenment rationality is that, the colonizing power is the only maker of history. As a result of this realization, humans began to practice superiority in various ways through the occupation of forests, rivers, marine ecosystems, slavery and so on. The spread of colonization led to the establishment of conflictive relations of man with the global environment.

Even nature is not central in the socio-political theory of the enlightenment period like the state of nature by Hobbes, Locke and Rousseau's; rather this idea is formed through a centralised human nature where man is the solo emancipator in his history.

The gradual domination over nature leads to a deviation from the notion that human society is an extension of nature. Philosophers of the enlightenment constructed knowledge about the colonized where anthropocene and linear progress was in the centre. Criteria for being civilized or progressive were economic development and anthropocene rationality. The central goal of the 'colonial civilizing mission' was to develop natives as perfect human beings in order to isolate them from the environment. Ecological freedom did not exist in the concept of freedom in that the colonial enlightenment developed among the colonized.

The continuation of colonial anthropocentric domination is now

more tactical and tolerant. In the post-colonial period, the global anthropocene is practiced in a structured and orderly manner.

Colonial Governmentality in Ecological Management

Governmentality means the technique of controlling 'human behaviour' through disciplinary power. It is the art or process of governing the population. Michel Foucault discusses governmentality in his article *On the Government of the Living*. According to Foucault, "this notion (Governmentality) being understood in the broad sense of techniques and procedures for directing human behaviour. Government of children, government of souls and consciences, government of a household, of a state, or of oneself" (Foucault, 1994, p.81). Colonial governmentality influences people's behaviour and reproduces this behaviour in their socio-political practice in an institutionalised way.

Governmentality had been conducted by a relationship between European knowledge and the colonial power. In colonial governmentality, the population was not only a subject to govern but also an ecology. Ecology became a 'subjectivity' of surveillance. Colonial governmentality formed a political knowledge where environmental management was crucial. Colonial administrative techniques became a significant tool for access to environmental resources. In colonial governmentality, the



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environment was the only means to achieve the colonial end. Their end was capital and progress. After the post-colonial period our end toward ecology is alike. The administrative management of the colonial period was centralised which helped control the environment arbitrarily. A new form of colonial knowledge was also engaged as a technology to control the environment. Colonial administration formulated laws and policies as a regulatory power to govern ecology. Governing the environment and other resources through regulatory agents and newly formed colonial political knowledge/power, marginalizes the locality and local knowledge of environmental management. Consequences of this greatly affected the livelihoods of the local people and ecosystems.

During the colonial era, new procedures were adopted by the Forest Department for forest control and access to environmental resources, "surveying, demarcating, consolidating, protecting, planting, managing, harvesting, and marketing forests" were among these. Rule-making, monitoring, and enforcement strategies for the environment were not based on ecological preservation. Revenue and capital were central as a foundation of environmental knowledge. In this governmentality the environment was represented as a means of rational intervention.

The success of colonial rule is that, it is still able to infuse its productivity

through discourse and regulatory power. And it still contributes in our social, political and psychological domain. The ecological management system reinvented this governmentality repeatedly. The colonial legacy of environmental management in Bangladesh is now a crucial and self-evident legacy. This governmentality created challenges for ecological management. Ecological consciousness and management need to be reconstructed "to work out new ways to live with the Earth" (Mbembe, 2021, p.21).

THE THEORETICAL FRAMEWORK FOR THE DECOLONIZATION OF ECOLOGY

Decolonization deals with crises of knowledge. Decolonization means "epistemic reconstitution" (Nigam, 2020, p.26). The aim of decolonization is to explore our present problems "independently" (Nigam, 2020, p.28) and critically. In this case, we need to consider Western theory and the production of knowledge as one of the many theories of knowledge without thinking of it as the only and indispensable one. The relative theory of knowledge is recognized through decolonization.

To Mbembe, the "essential philosophical meaning" of decolonization is "will to life" (Mbembe, 2021, p.2-3). Decolonization required establishing a new domain of thinking and practice in post-colonial



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society. Decolonization is also required for changing the "character of globalization" (Mbembe, 2021, p.42). What we mean by decolonization is not an attempt to go back to the past or to reclaim the past. This sort of activity creates a kind of culturalism. There is no way to develop narcissism or go back to the past; of which Frantz Fanon had placed special emphasis. Homi k. Bhabha also criticised this idea of Fanon's as "narcissistic identification" (Bhabha, 1994, p.88).

Edward Said or Frantz Fanon's thought² has played an important role in the post-colonial foundation. However, for socio-political and ecological development and awareness, we should adopt postcolonial theory critically. It is an important feature of post-colonial theory that, it takes the critique as a subject of self-awareness and development. For that, it differs from the classical Marxist or liberals theories. There is no opportunity to see the past as separate and isolated in terms of environmental discussions and environmental disasters. Current global warming is closely linked to human history and experience in the development of colonialism, racism, gender inequality and capitalism. The link between development and environmental control still persists in post-colonial Bangladesh, like it was in the colonial period. New and

appropriate ecological knowledge is needed to prevent continued ecological violence.

In order to build an alternative and de-colonial ecosystem in our country, de-colonial activities must be centered on environmental issues. At the same time, there is a need to be separated from the colonial mind-set of development. The development plan of our country is guided by a Capitalist and colonial structure and rationality. This separation is necessary for the preservation of our ecosystem. Marginal insights on ecological thinking need to be brought to the centre.

The aim of our decolonization is to explore the genealogy of the current ecological problem and use local, environmental and appropriate knowledge to solve problems. Decolonization of ecology is to "take the shape of a new planetary consciousness" (Mbembe, 2021, p.64). The central place of de-colonial ecology is to shape a planetary ethics or rationality and ensure socio-political practice of this ethics. Through planetary activities we can ensure our 'modernisation' which can be called 'ecological modernisation.'

² Frantz Fanon's book *The Wretched of the Earth* (1961) and Edward Said's book

Orientalism (1978) serve as the significant role in post-colonial thoughts or studies.



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CONCLUDING REMARKS

The way our ecosystem is introduced to political or economic development schemes, as well as the way our ecology is represented, is one-dimensional. This one-dimension always perceives the control of the environment. Man's innate relationship with the ecology is symbiotic. A dominant attitude and activities towards the ecology will not bring any benefit to the human race or the Earth. Rather, it will have a negative impact on climate change, biodiversity, public health and public safety. As a result of the capital-centric maritime economy, the food chain of the sea is already being severely damaged. The extinction of various marine fish is profoundly and negatively affecting the marine ecosystem.

The ultimate tendency to dominate and control the environment brings consequences that the people of Bangladesh are directly facing. The crises that people are facing include a wreaking of havoc on food, shelter and health. Socio-economic and political justice are also associated with environmental justice. Therefore, if environmental justice is not established, it is not possible to eradicate social exploitation and deprivation. Since nature is an important factor at the root of our society, we need to focus on the emancipation of the environment and balanced relationships. Through de-colonial activities, eco-friendly state

structures have to be built, where environmental management will be at the centre.

RECOMMENDATIONS

Eco-state means a State which places ecological considerations at the centre of it. Eco-state is associated with a government structure to avoid ecological risks and enhance ecological values. At present, Bangladesh is at the stage of an alarming environmental crisis. Bangladesh also needs to work as an ecological State to prevent environmental crises effectively.

The Design for Eco-State

The Autonomy of Local Government

An important step for decolonizing ecology is to move beyond the central governance system of colonial legacy. In order to give priority to the opinion and rights of the local people in the protection of local forests, hills and rivers, power must be given to the local people. We have to decentralize power by establishing a local self-autonomous government. The aim will be to ensure that the central government does not interfere excessively in the craft of development. At present, the local government in our country is governed by the executive of the central government. Therefore, this power structure of colonial rule has to be transformed.



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A Bottom Up Approach and Utilising Native Knowledge to Protect Biodiversity

State management is accustomed to following the top-down approach to environmental planning. Therefore, the ecological plans that are adopted are imposed from the centre. The 'bottom-up' approach must be followed to coordinate local knowledge for ecological development. A changing of the top-down approach can play a role in creating a space for democratic participation. We need to use local knowledge to protect the ecosystem. Coastal fishermen of the Bay of Bengal need to use their knowledge to protect the marine ecosystem. They know in which areas the amount of fish is declining abnormally, and at which time the fish lay eggs. Their life and livelihood must be given maximum security in order to protect the sea and coastal ecosystem.

Administration Office

The administration office has to be decentralised and shifted out of Dhaka. This will reduce the population pressure of Dhaka city. Various countries including South Africa and the Netherlands have done this. Through this cluster, a settlement plan could be implemented.

Eco-Centric Urbanisation

For eco-centric urbanisation, city planning needs a 'hydraulic vision.' Urbanisation plans must be

reintroduced to adapt to our climate. Public transport facilities need to be increased in cities. If more people use public transport, the number of vehicles on the road will come under control. As a result, the measurement of carbon dioxide in the atmosphere will be reduced. The public transport communication system must be developed as a modern and dynamic one. The fuel system of public transport must be eco-friendly. Due to climate change, plans have to be made to create immigrant-friendly cities in the future to cope with the pressure of migrants in big cities including Dhaka. Planning housing for migrants, employment opportunities and the protection of the local environment must be taken into account. In this case, ecological knowledge starting from environmental experts and engineers to the public must also be taken into consideration.

Eco-technology

We need to increase the use of eco-friendly energy such as solar, water and wind energy. An emphasis should be placed primarily on eco-friendly technologies as part of de-colonial activities. Wind and solar energy should be used for power generation. These are one of the sources of renewable energy. We have a coastal area of 710 km and a proper use of this source can increase the amount of renewable energy. Like wind power, Bangladesh also has huge potential to generate solar power from solar energy. The isolated islands of Bhola,



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Barisal, Chittagong, and Noakhali can be used specifically for this purpose.

Environmental Ethics in Environmental Management Practice

Environmental ethics must be needed in environmental management practice. We need to establish a new relationship with ecology where ecology is recognized not as an inactive entity but as an active, influential entity. To practice such ethics, there will be no opportunity to separate nature from society and man from other species. Human society needs to be evaluated as an enhanced form of nature. The main requirement of decolonization is establishing proper ecological management through the practice of environmental ethics.

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