

ENVIRONMENTAL SECURITY IN INDIA AND BANGLADESH: A
COMPARATIVE STUDY (1990S TO THE PRESENT)

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Introduction

Since the late 1970s and early 1980s several new issues has emerged in the international field, such as the oil crisis in the Middle East countries, the massive human rights violation, climate change issues, the problem of ozone layer, the environmental degradation, the problem of climate migration etc. Since the 1990s, environmental security issues have emerged as an essential part of human security. Environmental security is an integral part of human security and conceptualized by Amartya Sen and Mahbub ul Haq and also developed by Human Development Report (HDR) in 1994 the United Nations Development Program (Vogler 2017: 327). Environmental security wants to minimize huge environmental polluting industrialization and urbanization, natural and man-made disasters, and minimize environmental degradation, as well as want to ensure the stability of human civilizations through the protection of the environment (Acharya 2017: 335).

Why Chosen this Study

Since the 1990s environmental security problem has emerged is a global common problem and India and Bangladesh are two neighboring countries in South Asia. Historically, geographically, and culturally both countries are very much connected with each other. Especially, West Bengal is connected with the eastern part of India and the Bay of Bengal. On the other hand, geographically Bangladesh is located near the eastern part of India and is connected to the Bay of Bengal. West Bengal and Bangladesh are both riverine. Particularly, the Bengali language is playing the most significant role in promoting the cultural bond between West Bengal and Bangladesh (Bhardwaj 2014: 1). Also, coastal parts of West Bengal and coastal areas of Bangladesh are geographically located in Sundarbans and most of time both parts (like islands and coastal areas) of Sundarbans are affected due to climate change.

Identified Areas for the Study

The few coastal areas of West Bengal and Bangladesh have been identified for the explorative and comparative study. Several areas of West Bengal under the District of 24 Parganas such as Sagar Islands (The Ganges delta connected to the Bay of Bengal), Mousuni Island (near Namkhana, West Bengal), and Ghoramara Island (The Sundarban Delta complex of the Bay of Bengal) has been identified for the study. Simultaneously, southern coastal parts of Bangladesh such as Barisal, Patuakhali, Kuakata, (under the Divisions of Barisal) etc have been identified for the study.

Most of the Cyclones like Sidr (15th November 2007), Aila (25th May 2009), Fani (May 2019), Bulbul (19th Nov 2019), Amphan (2020), Yaas (May 2021), Sitrang (October 2022), etc. all severe Cyclones storms was extremely affected the coastal areas of West Bengal and the coastal parts of Bangladesh (Ahmed 2019) So, the researcher has identified a few areas for exploring environmental security and the livelihood situations during the Cyclones to the coastal areas people of West Bengal and Bangladesh.

Objective of the Study

The researcher has made an in-depth study. The aims and objectives of the study are cited below:

- To explore how emerging environmental security has become a part of human security; to examine how environmental security affects the coastal areas people of West Bengal and Bangladesh; and to identify the major problems of environmental security in West Bengal and Bangladesh;
- To diagnose the responses of the government and non-state actors in maintaining and promoting environmental security in different parts of the coastal areas and identify major prospects for environmental security in these areas;
- To analyze the life situation of the people of coastal areas of West Bengal and Bangladesh; and
- To examine a comparative study of environmental security in the different parts of West Bengal and Bangladesh.

Literature Reviewed

Researchers have read many books, book chapters, and journal articles for the research. Like, *Globalization and Human Security in South Asia* edited by Abdur Rob Khan, *Security, and Southeast Asia: Domestic, Regional and Global Issues* written by Alan Collins, *Report of the World Commission on Environment and Development: Our Common Future (1987)*, *Reviewed Work(s): Our Common Future* by World Commission on Environment and Development reviewed By Czech Conroy, *Environmental Security and Conflict in Bangladesh: Nature, Complexities and Policies in Peace and Conflict: the South Asian Experience* by Rafiqul Islam, *Non - Traditional Security Implications of Climate Change in Bangladesh* by Abdullah Ar Rafee, *Human Security Threats of Bangladesh: Challenges and Policy Options* written by Sheikh Masud Ahmed, *Environmental Security in South Asia: An Analysis of India and Bangladesh* by Satyendra Sing Narwaria, *Environmental Security of Land, Migration and Violent Conflict: Bangladesh-India* written by Dr. Narottam Gann.

Research Gap

The researcher has identified major research gaps that mentioned below:

- a. Lots of research work has been completed concerning the traditional issues in India-Bangladesh relations. But these studies mainly focused on the issues of traditional security (like border, enclave, military, water sharing disputes, etc.).
- b. Human civilization can't be secured without the protection of environmental security and environmental security problems tremendously affected the coastal areas of West Bengal and Bangladesh, and the life situation and livelihood patterns of the affected people changed thereby. Previous studies did not focus on that.
- c. Previous literature did not reveal the responses either of the West Bengal government or Bangladesh government towards environmental security. What are the major hindrances and responses to environmental security on the part of both governments? - The question is not answered.

d. What are the problems and prospects of environmental security in West Bengal and Bangladesh?

- The answer to the question was not explored in earlier works.

e. The role of non-state actors to environmental security is quite untouched in the previous studies and further, a comparative study on environmental security issues in the different parts of West Bengal and Bangladesh has not been discussed before.

Research Questions

The researcher has identified a few research questions as mentioned below –

- I. Is environmental security a part of human security? Why, when, and how?
- II. How do environmental security problems affect the life situations and livelihoods of the coastal areas people of West Bengal and Bangladesh?
- III. How climate change will increase environmental migration in the different parts of West Bengal and Bangladesh?
- IV. What is the role of West Bengal and Bangladesh governments promote to environmental security?

Research Methods

The research work entitled '**Environmental Security in India and Bangladesh: A Comparative Study (1990s to the present)**' is exploratory and qualitative. In a few cases, the qualitative method may be supplemented by quantitative, if the researcher needs so. A researcher has used the various tools of qualitative methods like, Interview, Observation, Participant Observation, Focused Group Interview with unstructured questions, Dialogue Method; Phone recording, Phone cameras, etc. Discourse Analysis (oral and written texts) and Critical Ethnography also has been followed for the research (Eco 2015: 45, McNabb 2021: 9 and Thamilarasan 2015: 94).

Data Collections and Data Analysis

Primary and secondary data has been collected for the research. The researcher has to use the multi-tools of a qualitative method for the collection of primary data. Government publications and newspaper reports have been used for the collection of the same.

At the same time, the researcher has collected the secondary data from the research-related literature, books, magazines, periodicals, journals, pamphlets, newspapers, websites, etc. for the research purpose.

Theoretical Orientation

The concept of human security has been derived since the 1990s by the United Nations Development Program and developed by Amartya Sen and Mahbub ul Haq. Environmental security is a part of human security. The researcher wants to explore how the environmental crisis has been affecting the livelihood of the people in the coastal areas of India and Bangladesh, especially since the 1990s. The issue of environmental security has been analyzed through various theoretical perspectives and especially through multiple theories of international relations. But, traditional theories of international relations (such as realism) have not given importance to the issue of environmental security. However, many theories and approaches like Realism, Neo realism, Liberalism, Neoliberal institutionalism, Marxism, Critical theory, Constructivism, feminism, Green theory global environmental governance, etc have been analyzed through the various perspectives of global environmental security.

Chapterizations

Introduction

Chapter - I Emerging Issues of Environmental Security as a Part of Human Security

Chapter - II Theoretical Orientation

Chapter - III Impacts of Climate Change in the Sundarbans Coastal Areas of West Bengal and Bangladesh: A Comparative Study

Chapter - IV Climate Change and Environmental Migration in the Different Parts of West Bengal and Bangladesh

Chapter - V Role of West Bengal and Bangladesh Governments Promote to Environmental Security

Summary and Findings

Environmental Security in India and Bangladesh: A Comparative Study (1990s to the present) has been analyzed through the five chapters. The first chapter analyzed that environmental security is an essential part of human security and it emerged in 1990. Environmental security is a common global problem and without collective responsibility, it is not possible to ensure environmental security. The 1st chapter also mentioned that several global environmental conferences were held for the sustainability of the environment, but due to a lack of collective responsibility environmental problems are increasing. (Vogler 2017: 319).

The second chapter analyzes the issue of environmental security through multi-theoretical perspectives. Environmental security is a part of human security and it was developed by Amartya Sen and Mahbub ul Haq and also later emphasized through the UNDP report in 1994 (Acharya 2017: 334).

The traditional theory of international relations such as political realism has not given any importance to environmental security. The classical realist thinker Morgenthau has explained environmental security as treated by the constitutional power of the state. He has mentioned it is possible to ensure environmental security through the security of the state. New realist thinker Kenneth Waltz has mentioned environmental problems can be solved through the international structure. According to him, the international structure can promote international cooperation, through which it is possible to ensure environmental sustainability (Vogler 2017: 331; Dunne, Brian and Schmidt 2017: 92).

The liberal theory in the field of international relations states that environmental problems can be solved through international cooperation. Neoliberalism also expresses that it is possible to solve environmental problems through collective responsibility and cooperation among the state and non-state actors, civil society, market economy, etc (Dunne 2017: 99; (Hass, Keohane and Levy 1993: 4).

Marxism again blamed the capitalist economic state system as responsible for the degradation of the environment. The Marxist view is that the capitalist system has exhausted and exploited nature for the sake of extreme profits and as a result environment is gradually degrading. At the same time, critical theory has mentioned modernism, artificial technology, and mechanized capitalism are responsible for the crisis of the environment (Linklater 2013: 113). Critical theory argues that to solve environmental problems, nature must be free from the control of capitalism, artificial technology, and existing socio-political and cultural structures (Luke 2003: 238).

Constructivism also emphasizes identities, norms, ethics, and non-material power for the sake of human security. According to constructivism, identity is more important and since 2020, China, the USA, India, Russia, Japan, Iran, Germany, South Korea, Saudi Arabia, and Indonesia have become known as the highest-polluting countries in the world. The identity of states is very dangerous for the sustainability of the environment. One of the core social constructivist researchers Alexander Wendt emphasizes values of collective identity can ensure environmental security and human security (Barnett 2017: 126).

Since the 1980s, eco-feminism has emerged as a new form of feminism. Eco-feminism has mentioned without women's security it is not possible to ensure environmental security. Women are very much closer to nature rather than men. Therefore, eco-feminism believes that to save the environment, it is necessary to first protect women. Women want to promote a sustainable green world. Indian ecofeminist thinker Vandana Shiva says that the main goal of ecofeminism is to reform how society views land productivity and the power of women. According to Vandana Shiva, nature and women are both substandard in a patriarchal society and both are exploited in patriarchy. Also, Maria Mies and Vandana Shiva have criticized industrialization and modern civilizations. They saw science as a continuation of mechanical Western civilization and patriarchal dominance in the West, which wanted to control and exploit nature and women. Even,

the process of industrialization alienates people from their homelands. This results in the deterioration of ecological balance on one hand and also in developing countries women became more marginalized (Mies and Shiva 1993).

Another American ecofeminist thinker Carolyn Merchant (*The Death of Nature*) has strongly criticized the divisions between 'women', 'men', 'nature', and 'culture'. She considered this division as a strategy to preserve patriarchal dominance in society. She also criticized the idea that men will subjugate nature and that women will be subservient to men. According to her, a new social structure should be created based on human values, not only the consideration of women and nature as useful resources in societies. Where both men and women work to their full potential and nature is recognized as an integral part of that relationship. If the division of women, men, nature, and culture continues to increase, then there is no doubt women will face insecurity and the environment also degrades (Merchant 1980).

The Green theory has mentioned the lack of collective action is the main cause of the environmental crisis. At the same time, green theory has mentioned the emergence of the climate migration problem as a new security threat to human society. According to green theory, about 80 million people have been forcefully displaced in the world due to climate change, and about 26 million people have become refugees. Also, about 45.7 million people have been displaced from their homeland and about 4.2 million people have become orphans from their homeland (Ari and Gokpınar 2021: 41).

The theory of global environmental governance emphasizes collective responsibility for the protection of the environment. Neo-liberal thinker Peter Hass has mentioned epistemic communities (representatives of scientists, environmentalists, representatives of environmental awareness community, state, and non-governmental organizations, representatives of international organizations, representatives of civil society, etc.) can ensure collective responsibility and promote global environmental governance for the sustainability of the environment (Williams 2017: 51).

Through the analysis of the third chapter, the idea emerges that the people of the Sundarbans region have been severely affected by climate change. In particular, multiple cyclones caused by climate change such as Super Cyclone in 1991, Sidr in 2007, Aila in 2009, Bulbul and Fani in 2019, Amphan in 2020, Yass in 2021, Sitrang in 2022, etc. have severely damaged the coastal areas of Bangladesh and the various islands of the West Bengal in Sundarban. This chapter

has also emphasized a comparative analysis of the coastal areas of West Bengal and Bangladesh. The coastal areas of Bangladesh were the most affected by the super Cyclone in 1991 and Cyclone Sidr in 2007 rather than the West Bengal. On the other hand, the islands of South 24 Parganas such as Sagar Island, Mousuni Island, and Ghoramara Island have been severely damaged by cyclones Aila (2009), Amphan (2020), Yass (2021), etc.

Also, the third chapter has been analyzed About 5, 00000 people died in Bangladesh in the tropical cyclone of 1991 and about 3406 people in Bangladesh died in Cyclone Sidr in 2007. Also, Cyclone Sidr affected 30 districts, the number of affected upazilas was 200, around 1950 unions were affected, the affected households were 20, 64,026, about 7,42,826 hectares are completely damaged and 9,55,565 hectares of agricultural land is partially damaged. At the same time, livestock deaths in the coastal area of Bangladesh were about 17, 78,507, road damage was about 1,714 km, and bridges and culverts were damaged about 1,687. About 1,875 km of coastal embankments were damaged, about 4,231 educational institutions were completely damaged, and 12,723 were partially damaged through Cyclone Sidr in Bangladesh. Comparatively, Cyclone Sidr was much more destructive in Bangladesh rather than in West Bengal (Khan, Khalily and Scheyvens 2015: 8).

Also, Cyclone Aila (2009) has been severely affected in Bangladesh rather than in West Bengal. As a result of Aila, about 11 districts of Bangladesh were affected, 64 upazilas were severely affected, 195 unions were completely and 334 unions were partially affected, about 9, 48,621 families were severely affected, about 2,43,191 houses were completely damaged, and about 77,486 hectares land were completely damaged. Livestock deaths were about 1, 50,131, total road damage was about 2,233 km, partial road damage was about 6,621 km, bridges and culverts were damaged about 157 km, and coastal embankment was damaged about 1,742 km. Also, about 445 educational institutions in Bangladesh have been completely damaged and about 4,588 educational institutions have been partially damaged (Afroz, Cramb and Grunbuhel 2018: 609).

Bangladesh is a riverine country in South Asia and most of the time is affected by natural and human-induced disasters such as Cyclones, wind storms, flooding, drought, etc. The Padma, Meghna, and Brahmaputra's water levels are continuously increasing and as a result, about 80 percent of land areas of Bangladesh have flood plains. Various cyclones and floods such as in

1974, 1987, 1988, 1998, 2004, 2007, 2008, 2009, etc. had extremely affected the coastal areas of Noakhali, Khulna, Patuakhali, Kuakata, and Barisal in Bangladesh. About 69 percent of Bangladesh's land area was affected by the 1998 flood.

Also, Bangladesh is a vulnerable riverine country. About 70% of the population of Bangladesh lives in the lower reaches of the Ganges-Brahmaputra delta and is constantly affected by floods, cyclones, soil erosion, etc. Since the early 2000, due to climate change, several people have migrated from Bangladesh to other states in the world. In particular, various places in India such as West Bengal, Assam, Tripura, etc. states have become important destinations for the people of Bangladesh. Most of the international relations theorists, policymakers, and environmentalists have mentioned that the number of migrations is increasing in Bangladesh due to climate change. This chapter also explained that, due to climate change people are migrating and coming into the different parts of India from the neighboring states, especially Bangladesh, Nepal, Sri Lanka, Pakistan, etc. As a result of this cross-border migration has increased and the "Son of the Soil" of India is facing multiple problems.

The third chapter has also mentioned the number of migrations from Bangladesh to India's North East States and West Bengal is very dangerous. As a result, the problem of resource scarcity in Northeast and West Bengal is increasing. About 15 to 20 million people of Bangladesh migrated to Northeast and West Bengal in India.

The fourth chapter in this study has been analyzed climate migration emerged as a major threatening to human civilizations. In 2100 about 120 million people in India and Bangladesh will be displaced from their homeland due to climate change. Due to climate change, many people from Bangladesh are constantly migrating to different parts of India, especially West Bengal, Assam, Tripura, Meghalaya, Mizoram, etc. As a result, various cities in India already faced resource scarcity. More than 5 million people live in extremely susceptible areas of Bangladesh (Mc Granahan et al 2007). About 5, 00,000 people are displaced every year due to floods in Bangladesh (Warner et al 2009). Also, about 20 million people migrate from Bangladesh to India every year (Brown 2007). The number of migrants from Bangladesh to India has enlarged from 12 to 17 million in the last 40 years due to environmental resource scarcity and conflict due to climate change (Homer - Dixon 1994). Due to climate change, people are migrating from the neighboring states, especially Bangladesh, Nepal, Sri Lanka, Pakistan, etc., and coming into

different parts of India. As a result of this cross-border migration, the "Son of the Soil" of India is facing multiple problems.

In this chapter has explained climate migration is not only migration from one country to another country but due to climate change, climate migration can happen within the country, within the state, or from one place to another on an island. The effects of climate change are most dangerous for people living in the coastal areas of the islands. Through this chapter, an attempt has been made to show that the people of different islands are living through dangerous conditions. The people of different islands of West Bengal like Sagar Island, Ghoramara Island, and Mousuni Island are suffering from insecurity of life due to climate change. Due to climate change, the people of these islands are being forced to take shelter from their homeland to other places that are not desirable to them at all. Similarly, the people of various coastal areas of Bangladesh such as Patuakhali, Kuakata (under Barisal), Noakhali, Khulna, etc. are living in hazardous conditions and they are finally migrating from their homeland to other places which are not desirable to them.

The 5th chapter of the study analyzed the role of the West Bengal and Bangladesh governments in the promotion of environmental security and the livelihood security of the coastal areas people of West Bengal and Bangladesh. India, West Bengal, and Bangladesh have taken several laws, and acts, established the Ministry of Environment and Forest Departments, constitutional amendments, Panchayat and municipal laws, etc. for the protection of the environment, but environmental norms and regulations are not implemented due to administrative inactivity, inefficiency and irresponsibility of local administration and lack of environmental awareness among the local people.

Super Cyclone in 1991 and Cyclone Sidr (2007) were extremely damaged in the coastal areas of Bangladesh and at that time the Bangladesh government and the local administration could not play a positive role - that information was derived from the coastal areas people of Bangladesh. Simultaneously the West Bengal government and the local administration could not play a positive role during Cyclone Aila (2009), Bulbul (2019), Fani (2019), Amphan (2020), Yass (2021), etc. has also derived from the coastal areas people of Sagar Island, Ghoramara and Mousuni Island in South 24 Parganas district of West Bengal.

Limitations of the Study

The research entitled Environment Security in India and Bangladesh: A Comparative Study (1990s to the present) has some limitations. No sufficient works of literature, books, primary documents, research articles, journals, etc were found to complete a comparative study of environmental security, especially in the case of West Bengal and Bangladesh.

Sagar Island, Ghoramara Island, and Mousuni Island in South 24 Parganas District of West Bengal and Patuakhali and Kuakata in Barisal Division of Bangladesh were selected as a field study for carrying out this study. However, the researcher couldn't interview all the people in the areas. The researcher interviewed a small number of people who were living only in the coastal areas and were available at that time. This is a major limitation of this study and the responsibility rests entirely with the researcher.

In some cases, many government supporters did not want to talk about the responsibilities of the governments during the Cyclones and how the West Bengal government, Bangladesh government, and local administrations were active. This is also another limitation of the study.

Recommendations of the Study/Some Suggestions

In the Twenty-first century, environmental security has become essential for the existence of human civilization. Environmental problems are becoming dangerous threats to human society rather than terrorism. The West Bengal government and Bangladesh governments should take multiple strategies for the prevention of environmental problems, building more infrastructures in the local areas, and building more Cyclone shelters in the coastal areas, government representatives should visit the coastal areas during the disasters and the governments should also properly monitoring the relief systems through the local administrations after Cyclones in the coastal areas.

At the same time in the coastal areas people of West Bengal and Bangladesh are responsible for the degradation of the environment. So the people of West Bengal and Bangladesh need to be more environmentally conscious and responsible to ensure environmental security for their livelihood security.

Policy Implications

Environmental Security in India and Bangladesh: A Comparative Study (1990s to the present) explored that the coastal areas of West Bengal and Bangladesh common people are dissatisfied with the local administration, the role of the government, and the 'existing policies' of the government regarding environmental security. However, the 'existing policy' of the Government of India includes the Environmental Protection Act (1986), the National Disaster Management Act (2005), the West Bengal Biodiversity Council (2002), the West Bengal Disaster Management and Civil Defense Department (2006), etc. At the same time, the Government of Bangladesh has adopted Constitution Amendment (2011), Forest Conservation Act, Ministry of Environment, Department of Forest and Climate Change, Cyclone Shelter Construction, Maintenance and Management Policy (2011), Disaster Management Act (2012), National Disaster Management Policy (2015), National Disaster Management Plan (2016-2020), Disaster Standing Orders (2019), etc.

But, common people say that the environmental policies are not active, and those who are in charge do not give importance to the implementation of the environmental policies. Therefore, the government of West Bengal and the government of Bangladesh should make the existing environmental policies more active, take appropriate action for the implementation of environmental policies in the local stages and governments should implement multiple environmental security-oriented policies (such as the implementation of tree planting plans, protection of ecosystem, financial and technical assistance to the local governments and its reassessment, set up more environmental awareness programs etc.) to be adopted at national, state and local levels to ensure environmental security and the security of common people those are living in the coastal areas of West Bengal and Bangladesh.

Further Research of the Study

Environmental security is an integral part of non-traditional security and human security, and it was not discussed until the 1990s in the area of political science discourses and international relations discourse. But in the twenty-first century, it is more emphasizing on environmental security for the existence of human civilizations. Even, a comparative study of the

environmental security of West Bengal and Bangladesh this kind of the study has never been before done. So the new researchers will take this research area for their innovative and explorative research and that research will guide them to explore the research. At the same time, if all the educational institutions of the West Bengal and Bangladesh governments have included the area of environmental security in their curriculum, students and scholars will be more encouraged to do the research.

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