

Environmental Migration: Migration from Bangladesh to Assam

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Abstract: Migration is a very dynamic phenomenon, people migrate to a new location for a new and better life. Forced migration is a kind of migration where people are forced to leave their homes due to political, economic, social, and environmental reasons and this has caused the global refugee crisis, more than 80 million people are displaced around the world for various reasons. Often the environmental cause of migration is overlooked and seen in association with other political, economic or social reasons of migration and there are very few cases where the environmental factor is the only cause of migration. With climate change, environmentally induced migration is now more prevalent and has influenced the political, economic, and social state of a country. 2001, World Disaster Reports of Red Cross and Red Crescent Society estimated 25 million environmental refugees and has estimated over 200 million environmental refugees by 2050.

Bangladesh is a country very prone to the effects of climate change due to its geographical location and features. 163 million people live in Bangladesh in a land area of 148,460 sq km making it the most densely populated country in the world, the high population has resulted in a shortage of food, land, health care, etc and environmental factors have a very big role in the present economic and social state of the country. The Three big Himalayan rivers The Ganga, Brahmaputra, and Meghna joins and flows through the country and join with the Bay of Bengal forming the biggest delta in the world. With the seasonal monsoon, Bangladesh is very prone to flood, and every year at least 20% of the country gets submerged underwater and it causes land erosion, damaging land and property, deforestation, glacier melting and extreme precipitation due to climate change has resulted in more severe flood and erosion. The rapid increase in sea level has resulted in coastal flooding, frequent storm surge, and an increase in salinity resulting in a shortage of fresh water. Many people migrate across the country into India especially in the north-eastern states of India. Migration from Bangladesh to India has a long political, social and economic factors. In this paper, we look into the environmental reasons of migration. We look into the geography, environmental hazards and the effect of climate change on Bangladesh and the environmental impact of migration on Assam. The paper is based on previous papers, thesis, books, journals, articles, and reports published.

Keywords: Refugee, Migration, Environmental Hazards, Climate Change

Introduction

Refugee crisis has been a major concern for last many decades. With millions of people forced to fled their homes for safety and a better life. More than 80 million people are displaced around the world which means one in every 97 people are displaced. Situations like civil war, political instability, economic crisis, environmental crisis etc make people forced to fled. Refugees had to face a lot of other problems and hardships upon arriving in the new place. Condition of the refugee camps are not very good with thousands of people living in a very tight area hunger, water shortage, poor sanitation and disease being common, people fleeing to other countries had to face political problems such as being accepted by the country, the refugees may also face discrimination in the new land by the natives and may had hard time in finding a home and a job.

Environmental problems such as drought, cyclone, flood has been a major cause of refugee crisis, most of whom are internally displaced. With global warming and climate change environmentally induced migration is more prevalent around the globe like never before. The Intergovernmental Panel on Climate Change (IPCC) in 1990 noted that the greatest single impact of climate change might be on human migration. In 2001, World Disaster Reports of Red Cross and Red Crescent Society estimated 25 million environmental refugees. Professor Norman of Oxford University estimated that by 2050 there will be 200 million environmental refugees, which means one in every 45 person will have been displaced by climate change.

Although “Environmental refugee” or “Climate refugee” is a very widely used terms but there is no official definition of it, to use the term refugee to describe those fleeing from environmental factors is not strictly accurate under international laws. According to United Nation’s 1951 convention and 1967 protocol “A refugee is a person who owing to a well founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group or political opinion; is outside the country of his nationality and is unable to or owing to such fear is unwilling to avail himself to the protection of that country.” There are very few cases where environmental pressure has been to sole reason of migration and most of the displacement due to climate change happens within the country and termed as Internally Displaced Person (IDP) and over the last decade the number of people being displaced internally has doubled. Although environmental refugee is not an official term according to international laws, the International Organization for Migration (IOM) as described it as “Environmental migration are persons or groups of person who for compelling reasons of sudden or progressive changes in the environment that adversely affect their lives or living conditions,

are obliged to leave their habitual homes or choose to do so, either temporarily or permanently and who move either within their country or abroad."

Located in the North eastern part of Indian subcontinent Bangladesh is one of the most vulnerable country to Climate change. Congruence of three big rivers which form the biggest delta in the world in south of the country, low elevation prone to severe flood and erosion, and cyclones in the south and overpopulation with a weak political and economic system makes it a Malthusian nightmare. Irregular Migration of Bangladesh nationals across the Indo-Bangla border is a very common phenomenon and North East India becomes the most vulnerable to the irregular migration from Bangladesh. The migration is dynamic and has multi and inter dimensional factors such as: Politics, religion, economy and Environment. Environmental factors and climate change has a significant role in the migration of Bangladesh nationals to India. There has been a very huge political, economical, social, ecological and environmental impact in Assam and other North eastern states of India due to this migration.

With the above context of irregular migrants from Bangladesh to Assam and other Indian states, this paper focuses on the environmental and climatic causes of migration and its impacts in Assam.

Geography of Bangladesh

Bangladesh located in the North eastern part of the subcontinent sharing almost 95 percent of its border with India. Assam and Meghalaya in the North, Tripura Mizoram and Myanmar in the east, West Bengal in the west and the Bay of Bengal occupies the southern part. It has an area of 147,570 sq km. The juncture of three mighty Himalayan river The Ganges, Brahmaputra and Meghna which form the biggest river Delta in the world and almost all of Bangladesh lies within the delta. 79 percent of the country lies within the Delta plain of these three mighty rivers and their tributaries. Nearly 1000 million tons of sediments are carried by the Ganga – Brahmaputra rivers every year, 80 percent of the country's landmass is made up of fertile alluvial also called the lower Gangetic plain. Bangladesh has a huge network of river system with more than 700 rivers, it the physiography of the nation and serves as a principle source of life for the people. These rivers provides water for cultivation, fish and a means of transportation. Although the river system is a principal source of livelihood it also one of the greatest environmental hazard to the nation. Bangladesh's climate is characterized by sub tropical monsoon with high temperature and humidity. The seasonal monsoon which last from June till October, Due to its low elevation, huge network of rivers and heavy rainfall during the monsoon, Bangladesh is subjected to severe flood every year, during the monsoon the rivers of Bangladesh flow at about 140,000 cubic meters per second almost 50 percent of the landmass gets submerged during the monsoon season. The region of Chittagong hills is the only exception to the low lying regions of Bangladesh, with an altitude of 2000 to 3000 ft above sea level, Saka Haphong in the south eastern part of the hills has the highest elevation the country with an altitude of 3451 ft. The low hills region of Sylhet in northern eastern Bangladesh receives the highest average precipitation. Bangladesh has a coastline of 580km, the high level of sediments carried by the main rivers deposit the sediments across the Bay of Bengal and it has lead to major coastal change over the years. This area is very prone to natural calamities like cyclone and tidal flood.

Environmental Hazards

- 1. Flood:** 80 percent of Bangladesh is low floodplain area and being in situated in the Ganga-Brahmaputra delta and its tributaries and having an extensive coastline Bangladesh is very prone to flood. Every year 25 percent of the nation get submerged in water damaging agriculture, property, economic activities and life. During severe flooding as seen in 1998, 75 percent of the country got submerged. 80% of the rain falls during the monsoon which last from June to October and is one of the primary cause of flood. During the monsoon, the rivers flow at about 140,000 cubic meters per second. Deforestation in the upstream region of India and Nepal has lead to increase in soil erosion and landslides during monsoon and has devastating effect in Bangladesh. Inadequate sediment accumulation and a rapid increase in sea level is one of the reason in the increase of intensity of flood. As cited in Sanjay Hzarika's Strangers of the mist: *"Flood cover the countryside like a vast sheet, often a meter or two of water. One estimate says that one-third of Bangladesh is covered by floodwaters every summer. It is impossible to grow even tall paddies in such high water, forcing people and livestock to migrate. To higher ground. To neighbouring, higher, better-protected villages and towns. To regions inside the national frontiers and where land is available and across international border."*
- 2. Erosion:** With increase in population and the increasing demand for food, more and more land is made into cultivation land, due to increase in cultivation the topsoil of this land is easily run off during heavy rain and flood and over the time has reduced the elevation of the area. Riverbank erosion is a common natural phenomenon along the big and minor rivers affecting thousands of people every year in Bangladesh, destroying agricultural land, property and displacing thousands of people, 5% of total floodplain is directly affected by erosion and increase during the monsoon, around 50% of those living in the urban slums are those who are forced to flee due to riverbank erosion.
- 3. Cyclone:** Bangladesh is very prone to tropical cyclone originating from the Bay of Bengal. Cyclone is accompanied by heavy rainfall and tidal waves causing flood and severe damage to the nation. At an average 1 to 3 severe and moderate cyclone hits Bangladesh every year and it usually hit Bangladesh during pre and post monsoon. Between 1960 to 1997 fifteen catastrophic cyclone has hit the nation and has affected millions people and damaging livestock, economic activity, agricultural land and personal property. The catastrophic cyclone which hit Bangladesh in April 1991 killed estimated of 138,886 and affected more than 13 million people, it had wind speed up to 235 km per hour and tidal surge up to 7 meters in some places.

Effects of Climate Change in Bangladesh

Worldwide climate change has affected millions of lives. World Meteorological Organization has predicted an increase of global temperature by 1.5° C. Global warming has resulted in sea level, unpredictable cyclones, heavy rainfall causing serious damage to the environment and livelihood and has forced millions of people to leave their homes. Due to Bangladesh's geographical landscape and position it is very prone to the effects of Climate change. IPCC has suggested a rise of 1° C in the average temperature of Bangladesh over a period of 14 years from 1985 to 1999. Climate change has caused catastrophic natural events and disasters. Climate change has resulted in:

- **Increase in Flooding:** Extreme precipitation results in severe flood during the monsoon, rise in temperature has increased the melting of glaciers in the Himalayas, The Ganga and Brahmaputra carries the runoff and which cause flood in the low laying areas such as Bangladesh. Intergovernmental Panel on Climate Change IPCC Fourth Assessment Report (FAR) states that glaciers in the Himalayas are receding faster than in any other part of the world, and this can be attributed primarily to global warming.

Sea level rise directly results in flooding in low laying coastal areas, sea level rise and increase storm surges. It is estimated that by 2050, Bangladesh may lose 11% of its land due to sea level rise.

- **Increase in Cyclones:** Increase in temperature results in increase of intensity of storms. Due to positive correlation of sea surface temperature the intensity of cyclone winds may increase. The IPCC has stated that there is evidence of a 5-10 per cent increase in intensity of wind speed that would contribute to enhanced storm surges and coastal flooding, and also projected increase of 20 per cent in intensity of associated precipitation that would contribute to flooding.
- **Increase in Salinity:** Sea level rise directly results in increase of salinity in the coastal areas. Rise in temperature which increase in greater evaporation and evapotranspiration and higher demand of freshwater with increasing population has resulted in increase in Salinity. Due Increase in salinity intrusion during low flowing condition and saline water intrusion due to sea level rise has there will be shortage of freshwater in Bangladesh.

Migration to Assam and its Impact

Migration is a dynamic phenomenon, environment plays an important role in migration but it is just an arbitrary reason and is often look with relation with political, social and economic reasons of migration. Climate plays an important role in determining the political, economic and social state of a state. Migration to Assam from Bangladesh has a long political and social history, since the partition and liberation of Bangladesh there has been widespread migration from Bangladesh to Assam. Due to close proximity of Assam and its porous border it is an easy place for the migrants to enter. The river Brahmaputra which flows through the district of Dhuburi in Assam into Bangladesh forms temporary chars during the monsoon and it is an easy gateway to enter into Assam for the migrants. The migration has a huge impact in the politics, economic, social and environment of Assam. The Anti Foreigner Movement (1979-1985) changed the political environment of Assam and the current political environment in Assam revolves around the migration of Bangladeshis, the migration crisis has also been used as a political strategy to gain power by political parties. The unauthorized migrants has an huge economic impact in the state of Assam, it has triggered a high population growth and has resulted in high pressure on land, natural resources and labour.

Assam Population (1901-2011)

Year	Population	Growth		Share (%)
		Net Change	rate (%)	to India
2011	31,205,576	4,550,048	17.07	2.58
2001	26,655,528	4,241,206	18.92	2.59
1991	22,414,322	4,373,074	24.24	2.65
1981	18,041,248	3,416,096	23.36	2.64
1971	14,625,152	3,787,823	34.95	2.67
1961	10,837,329	2,808,473	34.98	2.47
1951	8,028,856	1,334,066	19.93	2.22
1941	6,694,790	1,134,419	20.40	2.10
1931	5,560,371	923,391	19.91	1.99
1921	4,636,980	788,363	20.48	1.85
1911	3,848,617	558,937	16.99	1.53
1901	3,289,680	-	-	1.38

Environmental hazards is one of the causes of migration but the migration has also caused severe damage to the environment and ecosystem of Assam. Many migrants settle near forest areas and national parks, the expansion of settlement has caused ecological environmental damage to the forest and national parks. According to Forest Survey of India (FSI), 2000 report there has been decrease of about 1800sq km of forest area in North East India. Unplanned settlement in the ecologically sensitive areas has caused severe damage to the ecology of the area. There has been rapid deforestation, irrational use of land, use of argo-chemicals in agriculture, cattle grazing has severely damaged these ecological sensitive areas. There has been an increase in land erosion, man animal conflict. Many migrants also settle beside railway tracks near towns and cities, these settlements have a very poor living condition, due to lack of proper sanitation, lack of clean drinking water disease like malaria, TB, respiratory problems, skin disease are common and has also spread through out the state.

Conclusion

The debate over the unauthorized migration of Bangladesh to India has been going on since the partition, there are over 15 million illegal Bangladeshi immigrants living in India and every year more than 300,000 enters India, absence of proper refugee laws in India has made the situation more worse as it blurs the refugee crisis creating problems in the area where there are more influx of illegal immigrants, like the state of Assam, it has led to insurgency, violence and popular movements and sparked political debates over the years. The various laws of sending back the illegal immigrants back to Bangladesh has not been very effective. Bangladesh has never acknowledged the presence of such huge number of illegal immigrants living in India and entering India every year. India should frame a national law for refugees and address the problem of such huge influx of refugees entering India every year. India and Bangladesh should hold some bilateral talk addressing about the illegal migration. Both countries should take help from international bodies such as United Nations High Commissioner for Refugees (UNHCR), the International Organization for Migration (IOM) or other agencies dealing with refugee crisis. Bangladesh should address its internal political, social, economic and environmental problems and frame laws to deal with the illegal immigrants entering India from its side. It should invest and build proper infrastructure to deal its environmental hazards which is one of the primary cause of displacement and poor economic condition of Bangladesh. With rapid growth of population and various environmental hazards it has put a lot of pressure in its agricultural sector and has led to shortage of land and resources. Bangladesh can't grow economically if it remains vulnerable to the effects of climate change. Bangladesh should frame legal and national framework to deal with its environmental hazards. Bangladesh should seek help and support from foreign agencies and use its aids properly to deal with effects of climate change.

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