# Different Issues in Boarder Area of Sundarban Deltaic Rural Area with Special References to Hingalgaj Block, North 24 Parganas, West Bengal, India

#### **Bikash Mondal**

Assistant Professor and Head of the Department, Department of Geography, Sagar Mahavidyalaya

Abstract: Hingalgaj block is situated along the international border area (Bangladesh border) in Sundarban Deltaic area in North 24 Parganas, West Bengal. In this area has found there are two importance boundaries the sundarban biosphere reserve at the south and the Bangladesh border at east. Several issues in this area elicit research. This paper examines the different issues like natural hazard, threat of biodiversity in sundarbans, insecurity of livelihood, international smuggling, illegal immigration, forceful search by border security guard, and other socio-cultural issues. After analysing the different issues of Hinalganj Block, this paper suggests strategies for conservation and sustainable use of different types resources and preventive measure for restricting the problem. It recommends the implementation of measures for mitigating these issues and tries to suggest sustainable measures of development.

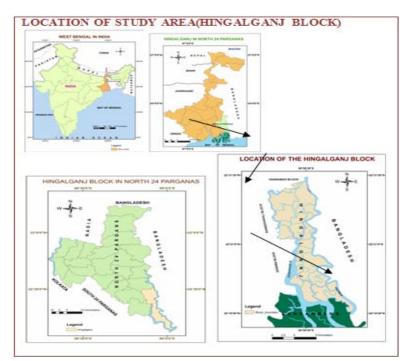
2. Location

Keywords: International Border, The sundarbans, Biosphere reserve, Natural Hazard, Illegal immigration

#### 1. Introduction

Different unique feature are found i.e. biosphere reserve, coastal erosion, climactic hazards and smuggling, illegal immigration, along the international border line. These are also the most common problems of the costal and border area. This paper deals with the different type of deltaic coastal and the border issues in the Hingalgaj Block and includes imbalances of biosphere reserve, cyclone, river bank erosion, crisis of drinking water, inadequate of infrastructure, smuggling, illegal immigration, increases of population etc. After examining the above mentioned issues of this block, this paper suggests the different type of sustainable steps for prevention of the issues of this block.

#### This block is located at the eastern part of Sundarban deltaic area also the southernmost and eastern part of West Bengal. The latitudinal and longitudinal extension of this area is from $22^{0}10'50$ "N to $22^{0}10'50$ "N and $88^{0}57'$ to $89^{0}4'30$ " E. This area is bound by different types of river. In the eastern side of the Hingalgaj block is dissected by the Kalindi River from Bangladesh. The Bay of Bengal and the Sundarban biosphere reserve is situated at the southern part of this block. The Raimangal River, Sandeshkhali block and Gosaba Block is located at the western side. The Hasnabad block and the Katakhal River are situated at the northern part of this block.



## 3. Methodology

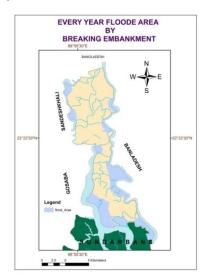
Data collected from different sites of the Hingalgaj block. Visit different office in this block and self interaction with local community of this block is applied to prepare this paper. At last different software has been used to draw the map and diagram.

# 4. Background of this area

Name of The Hingalganj block came after the name of Tillman Henkel, district judge and magistrate in jessore district from 1781. During that time this area was a dense forest which was also the habitat place of wild animal. This area was developed by Henkel sahib who built up the settlement area. Total area in this block covers 230.4sq.km and 44 mouza, which includes9 gram panchayet, is situated here. This area is built up of transported soil which is transported by the distributaries of the Ganga and Brahmaputra.

## Different issues of this Block as a deltaic area:-

Erosion of river bank:-This area is bound by i) embankments which protect it from flooding by brackish or saline water. There are several saline water rivers which are called tidal river like Hasnabad River, Kalindi River, Raimangal River, different type of tidal creeks are also dominant here. This river embankment is constructed by the muddy soil. During the tide this embankment is eroded by the flow of saline water. Different part of this area like Hemnagar, Kalitala, Sardarpara, Parghumti, Dulduli, Haridaskhati are flooded in the every wet period and rivers move inlands. Every year this area is affected by the breaking of embankment and large parts of river embankment are eroded. Every year reconstructed embankment is an average 13-17km. During the super cyclone Aila All embankment are destructed except Sandelerbill by this cyclone and flooded each and every gram panchayet.



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**ii**) **Degradation of the land:-**Main occupation of the local people is agriculture. Land of this area is reclaimed from the river bed and settlement is formed. Removal of salt from the

land by the leaching processes of the rain water results in making this area conducive to cultivation. But sudden flow of saline water often floods this area and soil is transformed into saline soil which is less fertile and unsuitable for agriculture. During breeching the embankment the land is affected by the flooded area. Total agricultural land area of this Hingalganj block has also been affected by the super cyclone Aila.

iii) Losses of Biodiversity in the southern parts of the sundarbans: - Most of the people in the southern part of this area are dependent for their daily occupation to the Sundarbans biosphere reserve. They are engaged on to collecting honey, woods, catching crabs, prawn, fish, etc. Forest smugglers of this area are poaching the deer, the Royal Bengal tiger and other birds and animals. Most of the settlers are engaged in using the resource of forest and river. They are destructing bio-diversity indiscriminately. Moreover, this area is reclaimed from the sea level and settlement area is formed by the exploitation of the mangrove forest which poses a threat to biodiversity in this area.

**IV**) **Unexpected entrance of Tiger in settler area**: - The Royal Bengal tiger, dangerous beauty of the Sundarbans, enter the settler area because of lack of food, threat of poachers or forest encroachment. Every year two or three tigers enter human habitants.

v) Ground water or drinking water crisis: - This area also faces crisis of drinking water which mainly comes from ground water in Sundarbans deltaic area. This ground water crisis is found in the following grampanchayet i.e. Hinalganj, Sandelerbill, Rupomari, Lebukhali, Bhanderkhali, Dulduli, Sahebkhali, Jogeshganj, and also Kalitala grampanchayet. Most of the tube wells are used to collect ground water for drinking but most of this ground water is too saline for drinking purpose. Slowly percolating rain water, intrusion of saline water affects the forming of islands. The saline water enters the soil layer and causes of drinking water or ground water crisis. 75% of this block is affected by ground water crisis.

vi) Climatic Hazard:-This area is situated at the active deltaic region which is also coast along the Bay of Bengal. Different types of cyclone which are formed in the Bay of Bengal create havoc of this area. Cyclones occur in summer and end of the monsoon. The settlements of the islands have destructed by the different cyclone at the beginning of build up settlement. For example, Aila, a super cyclone, created destruction on 25 May2009. More over different types of cyclones like Reshmi, Sider, and Hudhud have destroyed resources in this area.

vii) Insecurity of live hood:-There are 42 villages here. A large numbers of villagers almost 66% belong to SC category. Near about 20% of total population comprise marginal workers, where worker and non worker percentage ratio is 55:45. A large no of main workers depend for their occupation on mono crop agriculture in the rainy season. Disguised unemployment, poverty, frustrations are the more powerful elements which effect the daily life of this area. This area being situated at the side of Bangladesh border and

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Sundarban forest promote international smuggling, illegal entry of terrorists, unexpected entry of tiger in settlement area; these are also causes of insecurity of live hood in this area.

viii) Lack of Communication system:-This area is hounded by the lack of communication due to its deltaic location. The machine boat is the only means of convergence and it plies only at fixed timing. The Kheya or the boat is famous here, the auto, bus, engine van ply here on land and help in intraisland communication. But these vehicles also commute during the particular time of the day.

ix) Health facility:- lack of health facility hounds the people in this area. There is one block hospital located at Hingalganj, and three village hospital located at Jogeshganj, Sahebkhali, and Sandelerbill. 39400 settlers per hospital take advantage of medical service from this hospital. But sufficient doctors are not service here for the remoteness of this block. But serious patients are referred to the Kolkata hospitals. Many of them are expired due to delay transportation. Child death rate is high 22child/thousands. This area is also threatened terrorist attracts along the waterway of southern of Bay of Bengal and eastern part of this block.

**x) Human trafficking:** - Human trafficking is the one of major the crimes in this area. Boy, girls also adults both are trafficked from this area less developed infrastructure, frustration of unemployment, disguise unemployment, lack of education, poverty etc give rise to human trafficking. Most of the trafficked people are lured by their relatives who promise unemployment and they are sold in different place for different purpose. Moreover large no of Bangladeshis both girls, boy's also adult peoples have been trafficked in this area.

**xi**) **Education:**-Education has been neglected in this area as well as other border and rural area. There are many but that does not prevent drop outs. This area is an underdeveloped in education. More than 39% of population is recorded as illiterate person. The illiterate person is more recorded in the female population more than 61% of the total illiterate population and 24% of the total census population.

# 5. Conclusion

From this above discussion it is clear that this area is the one of the most backward places in West Bengal. There are different types of physical and cultural issues which contribute to the lack of development.

Suggestion:-If this area could be recue from above backwardness following suggestion should be introduced:-

- 1) This area should be developed than other area because this area is important in terms of national security.
- 2) This area is deltaic area. So this area should be secured from the terrorist attacks from water way.
- 3) More of hospitals may be built up to better treatment of people in this area.
- 4) Compulsory education should be facilitated from lower level education to higher level education.

- 5) Measures should be taken to protect the river embankments in high tides and concert embankment may be introduced in this area.
- 6) Destruction of the biodiversity should be stopped by increasing awareness of the local people.
- 7) Locally Climatic hazard alert may be constructed in this area to make the local people aware beforehand.
- 8) Flood centre may be constructed in each and every mouza.
- 9) Drinking water crisis can be reduced by the help of transport of fresh drinking water and help of the rainwater harvesting.
- 10) Rural employment programs like different type of agriculture training should be introduced to reduce unemployment.
- 11) Awareness should be increased to stop to human trafficking and increasing patrolling by the administration should be implemented.
- 12) The transport system may be improved by building rail and Road bridge, and super quality boats may be used to connect by the different islands of the block in a short time.
- 13) The integrated border program may be introduced by federal system with the help of central and state governments.
- 14) Different types of NGO should come forward to help in social and economic development.
- 15) This island can be built up a tourism centre in West Bengal with the help of tourism industry this area may be improved socially and economically.

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# **Author Profile**



**Bikash Mondal**.is Assistant Professor, Department of Geography, Sagar Mahavidyalya, University of Calcutta, Address – Harinbari, Sagar, South 24 Parganas, Pin 743373. He did M.Sc in Geography in University of Calcutta.