
**TOURISM CAUSED JEOPARDIZE OF BIODIVERSITY: A CASE STUDY ON
MANDERMONI –DADANPATRABARH COASTAL TOURIST DESTINATION IN PURBA
MEDINIPUR DISTRICT, WEST BENGAL, INDIA**

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Abstract

The present study is conducted to correlate among tourism and biodiversity, environment, physical and socio-cultural landscape. Tourism is now a major contributor to foreign exchange, money earnings and provides employment to millions directly and indirectly. It acts as a vehicle for infrastructural development as a big way (changing land use pattern and occupational structure) while damaging the natural environmental landscape and socio-cultural landscape of a host country. Therefore the present study was undertaken to assess the tourism and natural environmental landscape such as biodiversity, ecology or environment. Furthermore, the concept of mutual relationship among tourism and biodiversity, ecology or environment, which indicates that conservation of biodiversity, ecology or environment is a recreational activity of human life. Therefore, there is an imperative need to correlate these aspects.

Key words: Tourism, Urbanization, Coastal Tract, Biodiversity, Socio-cultural Landscape.

Introduction

Worldwide tourism is recognized by the governments as a sector with high potential for economic development and employment generation. As per World Tourism Organization (WTO) have estimated that economies like India and China would emerge as the superpowers in world tourism by the years 2020. But if the development of tourism industry is not properly planned and managed, tourism itself produces a myriad of negative effects of the every tourist destination.

Mandermoni was primarily a fishermen beach and indigenous salt making units exist there since the pre-independence period. But pristine natural beauty with sea, sand and sun of Mandermoni made it irresistibly attractive to beach lovers, so the moneyed people or hoteliers to attracts the fishermen and farmers who are land holders adjacent to the coast to transfer their holdings in favour of their and then they managed local Panchayet and political power to issue approval for building plan but much of the facilities are unplanned and unauthorized. It has now become more of a hunting ground

for coastal land sharks while damaging the Socio-cultural Landscape and natural environment like terrestrial and aquatic biodiversity of the host region too.

In spite of the appreciable growth in tourism over the last few years and the excellent growth prospects of the industry, there are growing apprehensions regarding the sustainability of tourism as a development paradigm primarily because of the adverse environmental impacts of tourism. It is widely believed that eco-friendly tourism alone can be sustainable for development in the long run, and accordingly the concept of 'Ecotourism' is gaining significance day by day as a measure for overcome of this situation.

Literature Review

The Indian literature as national level on tourism is very few. The studies relating Coastal Purba Medinipur of West Bengal tourism are much less in number. In some cases, few literature have been published like 'Coastal Environment of Midnapore, West Bengal: Potential Threats and Management': Susanta Kumar Chakraborty, and Pradipta Chatterjee, Chief Coordinator, DISHA prepared a report on 'Vandalising our Coast-Environmental Violence and violation of CRZ Regulation at Mandermoni'. The paper which deals with the integrated coastal zone management (ICZM) of Midnapur Coast, West Bengal which is important to develop proper coastal protection measure. Even though a lot of reports published in newspapers (for example about Mandermoni report published on 17th October 2012 in the Ananda Bazar Patrika) and local Weeklies about tourism related activities of Purba Medinipur Coastal Tourist Destination were used for this study, they were not included in the literature reviewed here.

Aims & Objectives

The present paper tries to study the linkage among developmental parameters of

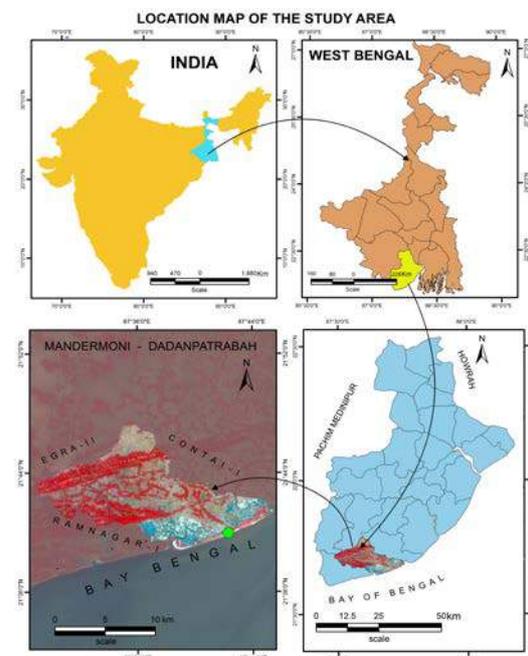
tourism industry, tourist pressure and their behavior and its impact on local environment as well as biodiversity of Mandermoni coastal tourist destination.

Methodology

The present paper intended to be empirical study designed for a Micro Level investigation this involves gathering of information and collection of data at both case study and survey method. Degree of Tourism Industry will be analyzed from the data (which collect from the Statistical Hand Book of East Medinipur, Economic Review of West Bengal and Digha Sankarpur Development Authority Office) and its impact will be drawn through the intensive field survey.

Location of the Study Area

Mandermoni-Dadanpatrabarh is situated in the Ramnagar Block - II of the Contai Sub-Division of the Purba Medinipur District of West Bengal. It is near about 180 km South West of Kolkata and about 20 km (on road) from Digha which being situated in the Digha-Contai coast. It lies between



21⁰39'01.68"N latitude & 87⁰38'32.94"E longitude from Mandermoni Estuary (locally called 'Mohana'), with an elevation of nearly

1m (from MSL) to 21⁰41'43.08"N latitude & 87⁰47'21.87"E longitude up to Sun Rise point with an elevation nearly 5m (from MSL) with near about 13 km long pristine stretch of sand lined with dunes and a profusion of screw pines and casuarinas.

Observation

A. Basic feature to promote the development of tourism industry at Mandermoni-Dadanpatrabarh :

i) *Pristine natural beauty:*

Pristine natural beauty with sea, sand and sun of Mandermoni made it irresistibly attractive to beach lovers, where the sightseer play and enjoy romance with sun, sand and sea with in the 13 km long stretch of sea beach where have presents rolling seas, sand dunes, casuarinas forest, red crabs (their presence makes the beach look crimson), eye catching beautiful scenario by sun rise and sun shine.

ii) *Maintained high degree of Bio-diversity:*

This region is a transitional zone in-between sea and land where the mangrove forest are whispering, the flora and fauna are blooming. All these (both aquatic and terrestrial life) are creating a colorful spectrum of bio-diversity, and found in the intertidal, supra-littoral and backshore zones of Mandermoni. The long beach demarcated by seasonal channels offers some areas with varied and undisturbed habitat for birds.

iii) *Pleasant weather condition:*

Pleasant warm weather condition like tropical monsoon climate with an average annual rainfall of 1500 mm and maximum air temperature is around 35⁰C and the minimum is 13⁰C, which affected by land breeze and sea breeze, are attract the tourist round the year.

B. Present feature of tourism at the Mandermoni-Dadanpatrabarh :

At present the tourist attraction has been shifted to Mandermoni from Digha-Sankarpur due to its pristine natural beauty.

But the natural beauty and ecological condition as well as biodiversity of the area has affected badly because of the following causes:

i) *Unplanned and Unauthorized Hotel Construction:*

Drawn by the steady flow of tourists, several hotels and resorts (about 145) have come up; all sorts of concretization materials were piled up on the beach complete flouting of the Coastal Regulation Zone (CRZ) stipulations under the Environmental Protection Act by Government of India. The local authorities are also silent about this matter.

ii) *Beach Driving:*

The beach driving (traffic) mainly consist of 2, 3 and 4-wheel drives (Bike, Van Rickshaw and Private & Public transport Car respectively) that are used as amusement purpose of tourist and by pick up and drop down service by many resorts as these resorts are only accessible by driving approximately 6 Km over the beach.

iii) ***Waste Materials:*** The beaches of Mandermoni were failed with innumerable or vast quantities of waste material, most of which were thrown by the tourists. Most of the waste materials consisted of broken glass, bottles, empty packets of chips, green coconut waste and sewage materials and kitchen waste etc. from the resorts and daily travelers.

Discussion

The result is for all to see, natural landscape ecology (as well as biodiversity) of Mandermoni coast specially crabs and casuarinas and screw pines have almost disappeared- which gave way to concrete constructions. The red crabs, their habitats crushed under the wheels of traffic, fled to safer destinations. Nor will you hear the rustle of Casuarinas and Screw Pines swaying by the sea breeze or the excited shrieks of colonies of seagulls as they swoop down on the water and make off with their prized

catches. All sounds of nature are drowned out by the collective roar of scores of giant generators that provide round the-clock power to the 45-odd hotels here. A decade ago, the beach looked remarkably different with “Millions of red crabs crawled on the

beach from a distance it appeared like a red carpet rolling over golden sand”. This beach was once a prime breeding ground for mud prawns and red crabs. They're all gone now. Sand was mined for construction and that killed the rich flora and fauna of the area.

A. Developmental Set-Up of Tourism and its Impact on Environment of Mandermoni-Dadanpatrabarh:

Basic Infrastructure & Resource Demand	Tourism Operation	Impacts
Water Consumption	Release garbage, Sewage into canal, river & beaches which are fall in that coast.	Contamination, Health Hazards, Destruction of Aquatic Plant & Animals Life.
	Release of Oil from Cruise Ships, Ferry Boats, Toller etc.	Increasing Toxicity in Water Bodies, Contaminated Sea Food etc.
Beach Driven	Increase in Travel to Destination by both petrol & Diesel Driven Car etc.	Air & Noise Pollution adverse impact on Plant and animal life.
Hospitality & Accommodation	Violate of the Coastal Regulation Zone (CRZ) notification of 1991, Chopping of trees, Destruction of shifting Dunes for expansion & Construction of Resorts, Hotel, Shop etc & thoughtless use of Fire in beach and Park for amusement.	Loss of Forest Wealth, Constant Trampling of Plants, Displacement of People, Traffic Congestion, Land use Pattern Change and also increased Pollution.
Monuments	Use for Recreational Purposes, Excessive usages for Site seeing etc.	Over Crowding, Disfiguring Loss to Preservation etc.

B) Measure to protect biodiversity from jeopardise:

In spite of the appreciable growth in tourism over the last few years and the excellent growth prospects of the industry, there are growing apprehensions regarding the sustainability of tourism as a development paradigm primarily because of the adverse environmental impacts of tourism. It is widely believed that eco-friendly tourism alone can be sustainable for development in the long run, and accordingly the concept of ‘Ecotourism’ is gaining significance day by day as a measure for overcome of this situation. So, I suggest that Ecotourism as a remedial measure for the development of tourist destination and conservation of Biodiversity (Ecology &

Environment also) to the Mandermoni tourist destination of Purba Medinipur.

C) Some steps are inserting that:

- i) Alarming and consciousness among the local people about environment.
- ii) Increased awareness to need about Ecotourism & Importance & Facilities.
- iii) Enhance the conservation and process to protection of Biodiversity through comprehensive information and education programs to local people.
- iv) Tent in the nature or home stay may be increased for accommodation and Leisure for the tourist.
- v) Human Environment in Stockholm (1972) and Ministry of Environment & Forest issued notification (1991) under Environmental

Protection Act, are to be strictly follow-up to prevent uncontrolled anthropogenic activities and to protect diminishing biodiversity of that ecologically sensitive area.

vi) Environmental Impact Assessment (EIA) must should be mandatory for development of tourism related activities in the coast of Mandermoni Dadanpatrabarh tourist destination.

Conclusion

Till now, Mandermoni-Dadanpatrabarh is in fact, India's, and perhaps the world's, only illegal seaside resort that has come up over the past one decade to in flagrant violation of the Coastal Regulation Zone (CRZ) notification of 1991. In this context West Bengal Coastal Plain Management Planning has created conflicts between various resource users and interest groups, between developers and ecologists/environmentalist, engineers and geoscientists and land owners and economic men. Yet, I can say that the West Bengal coastal zone environment provide a unique combination of resources (like beaches, sand dunes, wetlands, various types of flora and fauna etc.) and constrains (like storms/cyclone, sea level rise, more vulnerable erosion by fluvio-marine processes and anthropogenic activities etc) which may be considered to explore the opportunities for development of eco-tourism which is one of the assuring effective management of the coastal biodiversity.

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References

- Biswas (Bera), A and Bera, D. (2009). Eco-tourism in dooars of West Bengal: Its Prospects, Problems and Proposals. *Geographical Review of India*. 71(3): 264-268.
- Chakraborty, S. K. (2010). Coastal Environment of Midnapore, West Bengal : Potential Threats and Management. *Journal of Coastal Environment*. 1(1): 27-40.
- Dandapath, P. K. and Mondal, M. (2013). Urbanisation and its Impact on Coastal Ecotourism in West Bengal. *International Journal of Science and Research*. 2(1): 114-119.
- Kaushal, P. and Sharma, S. (2011). Ecological and Environmental Impact of Tourism, Kanishka Publishers & Distributors, New Delhi.
- Mondal, M., Dandapath, P. and Shukla, J. (2013). Emerging Dimension of Coastal Ecotourism Resources along the Coast of West Bengal. *International Journal of Advanced Research in Management and Social Sciences*. 2(1): 58-73.
- Mallya, A. (2006). Eco-tourism and the community participation, Authors Press, New Delhi.
- Paul, A. (2002). Coastal Geomorphology and Environment, ABC publication, Kolkata.
- Saha, D. (2011). Republic of India: West Bengal Coastal Areas Development Project (Inception Phase Concept Paper).
- The Draft Environmental and Social Assessment Report (2009). Prepared by consultant, Center for Environment and Development, Thiruvananthapuram.