#### **Research Papers**



# A STUDY ON ECO-TOURISM POTENTIAL IN TRIPURA, NORTH-EAST INDIA

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#### **ABSTRACT**

Eco-Tourism is a responsible travel to natural areas, which conserves the environment and improves the welfare of the local people. It is a happy marriage between traditional tourism industry and modern concept of sustainable eco-friendly development strategy of tourism which reduces its negatives and increases the welfare of mankind. Tripura is endowed with splendid natural beauty. The state, an abode of rich floral and faunal biodiversity, treasure of plants, shrubs and herbs of medicinal value, unique ecosystems, wet lands, there grandeur and awe inspiring beauty are the sources of perennial attraction.

In pollution free environment, the tourists get physically invigorated, mentally rejuvenated, culturally enriched and spiritually elevated. Eco-tourism provides the incentives to local people, entrepreneurs and governments. This paper aims to study the potentials of tourist industry in Tripura based on its natural beauty. For this purpose some major eco-tourist spots have been surveyed to find out the main attractions. The record shows a remarkable increase in the arrival of foreign tourists after 1995 with the withdrawal of the restrictions imposed on the visit of the foreigners in Tripura. Transit route through Bangladesh played an important role in this regard. Moreover insurgency problem is no more in the state which keeps the tourists free to visit anywhere of the state. Communication is now becoming easier through air, road and rail connections. Official record shows that in the year 2011-12 revenue earned from this visit is Rs.1878736300000 and the economic activity generated is Rs.9393681500000. Therefore it is the right time to take more initiatives to develop tourist industry in general and eco-tourist industry in particular which will also generate employment and thus improve the socio-economic status of the people in general and indigenous people in particular.

Key Words: Eco-tourism, natural resource, tourists, socio-economic development.

# INTRODUCTION

Tripura is the second smallest state of North-East India with extension from 22°51' to 24°32' N latitude and 90°09' to 92°20'E longitude covering an area of 10491.69 km2. Being isolated from the mainland, it suffers from overall proper economic development. The state has about 60% of the total geographical area under forest cover, out of which about 6% is under protected areas in the form of four wildlife sanctuaries namely, Sipahijala, Trishna, Gumti and Rewa. Five parallel hill ranges (Jampui, Sakhantlang, Langtarai, Atharamura and Baramura-Deotamura) clothed with forest of varying density and ten major rivers (Langai, Juri, Deo, Manu, Dhalai, Khowai, Haora, Gumti, Muhuri and Fenny) occupying the valleys between two adjacent hill ranges, dotted with tribal hamlets, provide a perfect landscape for tourists with different preferences and tastes for the kind of recreation and enjoyment. Innumerable treks exist through the forests and traditionally and culturally rich hamlets, which have potential to provide a deep insight into the cultural and ecological diversity of the state.

In pollution free environment, the tourists get physically invigorated, mentally rejuvenated,

culturally enriched and spiritually elevated. Eco-tourism provides the incentives to local people, entrepreneurs and governments. It is an activity, if properly managed, can give fairly sustainable economic incentives to the local people. Realizing the enormous economic, ecological, recreational and conservation potential and growing interests in eco-tourism, it is important to develop and promote the activity in the state. Marketing of landscape beauty could be a cottage industry in Tripura.

The process of tourism development in the state was accelerated since 1987, when tourism was given the status of industry and various incentives were offered. It is considered as an industry because, for its growth a separate infrastructure is required which include hotels, resorts and many other things which have integral relation with industry. Apart from poor infrastructure and communication facilities, insurgency was a major deterrent in the state still last decade. The tourist traffic increased substantially after the removal of the entry permit system in the state, in May 1995. In 2009-10, the State Government has established Tripura Tourism Development Corporation Limited in June 2009 having its corporate office located at Swetmahal, Agartala for effective management of the tourism industry in the State. The record shows a remarkable increase in the arrival of domestic and foreign tourists after withdrawal of the restrictions imposed on the visit of the foreigners in Tripura. Bus service between Agartala and Dacca has played an important role in this regard. Moreover insurgency problem is no more in the state which keeps the tourists to feel free to visit anywhere of the state. Communication is now becoming easier through air, road and rail connections. Therefore it is the right time to take more initiatives to develop eco-tourist industry in Tripura which will also generate employment and socio-economic status of the people in general and tribal people in particular will acquire a momentum.

#### **OBJECTIVES**

Main aim of this paper is to study the potential of nature-based tourist industry in Tripura as it is very rich in biodiversity. So the main objectives are:

- i) to identify the natural resources present in different eco-tourist spots of Tripura.
- ii) to assess the inflow of tourists for last few years, both domestic and foreign.
- iii) to evaluate the possibilities for the development of nature based tourist spots in the state.

## METHODOLOGYAND DATA BASE

The study is based on secondary data related to the arrival of tourists, both domestic and foreign, for the years 1992-93 to 2011-12, collected from the Department of Tourism, Govt. of Tripura. Seven eco-tourist spots have been selected in Tripura to carry out the schedule survey on the basis of the questionnaire prepared by the researcher. These spots are: (1) Sipahijala Wild Life Sanctuary, (2) Tepania Eco-Park, (3) Trishna Wild Life Sanctuary, (4) Baramura Eco-Park, (5) Kalapania Nature Park, (6) Jampui Hills and (7) Dumboor Lake. Total number of tourists surveyed was 250 covering all the spots. Main emphasis was given to know their opinion on the infrastructural facilities. Again total 100 households, residing surrounding these seven spots, were surveyed to assess their socio-economic condition that is expected to improve through the flourishing of tourism industry in those areas.

## **RESULTS AND DISCUSSION**

The main attractions of some of the major eco-tourist spots are discussed below:

(i) Sepahijala Wildlife Sanctuary: This sanctuary is located in the western part of Tripura, under Bishalgarh Subdivision of West Tripura District and about 28 km away from the capital town of Agartala. It is an ideal place for biodiversity conservation covering with an area of 18.53 km2. Here both in-situ and ex-situ conservation of wildlife is found.

This safe heaven for wildlife is particularly valuable for wide green forest and rare species of plants. Botanists have recorded as many as 456 plant species in Sepahijala. Besides this, tropical moist deciduous forest, as many as seven different kinds of primates including the rhesus and pig-tailed macaque, capped languor, spectacled macaque, slow lories etc are notable. Apart from leopard, clouded leopard, civets, binturong, barking deer and wild boar, this forest plays host as many as 100 species of birds including waders, waterfowl and migratory birds of which lesser whistling teal, white ibis, open billed stork are remarkable.

Here the main attractions are Nature Interpretation Centre, Eco village with Tree House accommodation, high rise Watch Tower, Eco park and children joy ride, Exotic zoo animals, Picnic spot,

Botanical garden and Lake view resort.

- (ii) **Tepania Eco Park:** This Park is located in Udaipur Sub-Division, 47 km from Agartala and 5 km from Udaipur. It is set amidst a charming ambience of natural beauty. Total area of this park covers 155 hectares, with lash green and amazing nature. This park is equipped with a rare orchid house, unique tree houses, tented accommodations, watch tower, hanging bridge, picnic block etc. This Eco Park harbours a fascinating range of bio-diversity. It is also home to capped languor, red jungle fowl, hares and a variety of reptilian fauna.
- (iii) Trishna Wildlife Sanctuary: It is located at Joychandpur in Belonia Sub-Division, 95 km from Agartala and 15 km from Belonia. It is covered with an area of 194.704 km2. Among the four major sanctuaries in this State, Trishna is one of the attractive destinations for nature lovers. There is an overall uniqueness of the floral diversity spread throughout this sanctuary. One can also appreciate both in-situ and ex-situ conservation of flora and fauna in Trishna Wildlife Sanctuary There are 230 tree species, 400 herbs, 110 shrubs and 150 climbers available in the sanctuary. The density of trees is 111 per ha. The heterogeneous mixture of ground flora is indicated in agglomeration of various monocot and dicots herbs, shrubs, climbers, lichens, ferns, fern allies and regeneration of underground bulbs and rhizomes, kurcha, tulsi, vasak, sarpagandha, rudraksha, bel, chirata, kalmegh etc. are medicinal plants available in plenty. One species of bamboo Oxtenanthera nigrocilliate locally known as Kaillai is found abundance at this place, leaves of which are liked by Bison. This bamboo is said to be endemic.

The great attraction of this sanctuary is a sizeable population of Indian Bison, commonly known as "GABA". Another facet of Trishna is that, it is also the habitat of and home to highly endangered only ape species of Indian sub-continent i.e., the Hoolock Gibbon and Primates like Capped languor and Golden languor. It has vast variety of faunal species of insects, reptiles, amphibians, fishes, birds, mammals. Lakes, herbs, deep forest, wild life and human habitation have made it a natural paradise.

- **(iv) Baramura Eco Park:** It is located in Teliamura Sub-division, 37 km from Agartala and 5 km from Teliamura. It is a area surrounded by sylvan green forest with a stream flowing through it. The other attraction of Baramura Eco Park is unique hut like structure in the middle of the stream connected by a wooden bridge for viewing the surroundings in a perfect and panoramic environment. Here the tourists can avail picnic facilities, boating facilities, jungle tracking etc.
- (v) Kalapania Nature Park: This Park is located in Sabroom Sub-Division, 120 km from Agartala and 20 km from Sabroom. It covers an area of 21 hectares. The main attraction of this park is a Nature Interpretation centre located in the middle pat. A lake with serene blue water I midst of two hillocks adds beauty to the surroundings. A beautiful well maintained garden enriches its scenic canvas. Traditional hut "Tang Ghar" (house on stilt) is present inside the Park.
- (vi) Jampui Hills: It is located in Kanchanpur Sub-Division of North Tripura District, 220 km from Agartala and 100 km from Dharmanagar. The luxuriant forest of jampui Hills is the premier one among the six principal hill ranges of this State. Jampui the permanent seat of spring is situated at an altitude of about 3000 ft above mean sea level. In the eastern side of the hill range bordering with Mizoram and in the southern part lays Chittagang Hill Tract, Bangladesh. Jampui is famous for its charming landscape and bracing climate. Neat and clean traditional wooden houses of their local inhabitants combined with greenery all round provide excellent opportunities for eco friendly tourism in this hill range. Vangmun, Phuldangsai, Sabowal, Belianchip etc villages consist evergreen beauty. The viewing of rising and setting sun from various viewpoints in the Jampui Hill is an excellent feeling and emotion to a tourist. Jampui is famous for tasty oranges.
- (vii) Dumboor Lake: It is the largest water body in the State, located in Gondacherra and Amarpur Subdivisions. The area of the lake is 41 km2 and there are almost 48 islets inside the lake. The surrounding hills and the islets are enchantingly emerald green and present a captivating scenic spectacle. It is home to the different types of migratory birds. There is a hydel power project near the lake where the River Gumti originates and the area is called Tirthamukh, where a big fair is held every year on Paus Sankranti.
- (viii) Gumti Wildlife Sanctuary: It is located in Amarpur Subdivision covering an area of 389.54 km2. Close to the sanctuary, there is a Dumboor reservoir which attracts several resident and migratory water birds. This sanctuary has elephants, bison, sambar, barking deer, wild goat apart from many other animals and reptiles. The sanctuary boasts of a rich flora and fauna. Numerous medical and therapeutically botanical species are in abundance. It has 72 species of trees, 40 species of shrubs and 25

species of grasses. Nearly 52 varieties of fauna and 101 varieties of avifauna are found in this sanctuary. (ix) Rowa Wildlife Sanctuary: It is located in Dharmanagar, North Tripura District covering 0.86 km2 area. The tranquil environment and least aerial disturbance in the flight route to the area attract large variety of bird species. Rowa is a permanent abode for the seasonal migratory water birds for decades. Though preliminary a bird sanctuary, one can also appreciate both in-situ and ex-situ conservation of flora and fauna in Rowa Wildlife Sanctuary. The floral diversity of the sanctuary is unique and well distributed in the tiers of floral canopies. Large varieties of herb, shrub, climber and tree species found in the sanctuary have medicinal value. It is rich in the species diversity in bamboo as well. The sanctuary has faunal variety of species of insects, reptiles, fishes, birds and mammals. It is a safe abode for birds. More than 10 species of birds have been sighted in the sanctuary in different nesting season.

Other attractive places are Khumuluwng Eco Park, Durgabari Tea Garden, Devipur Tea Garden etc.

Arrival of domestic and foreign tourists: Restricted Area Permit prohibited the foreigners to enter into Tripura for a long period of time and it has been withdrawn only in May, 1995. Consequently the arrival of foreign tourists started to increase gradually as shown in fig.1 and the gradual increase in the number of foreign tourists was from 96 (1996-97) to 6550 (2011-12). Similarly the number of domestic tourists has increased from 189251 to 359731 for the same period. After adoption of Ecotourism Policy in the year 2004, there was increase in number of domestic tourist during the period 2006-07 to 20011-12.

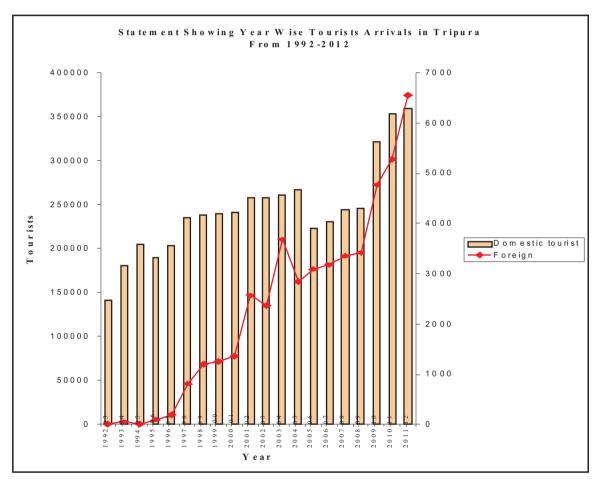


Fig.1: Year-wise tourist arrival in Tripura from 1992 April to 2012 March.

[The Domestic/foreign tourism statistics pertain only to tourists staying over at Tripura and not day visitors.]

Maximum arrival of tourists, both domestic and foreign, is recorded in the month of October for all the years of consideration (Fig.2). This is mainly because of the favourable weather for site seeing; Durga Puja vacation in educational institutes, holidays in offices; availability of air fare in LTC for travel in north-east India etc. In the month of December also people use to travel to enjoy the holidays after annual examinations of their children and also to make the year ending memorable and to get them recharged for the coming New Year. Moreover, this season is safe for travel in any hilly region. Though the graph shows continuous inflow of tourists in Tripura throughout the year, still major portion of the

tourists selects October to January for their visit mainly due to the pleasant weather.

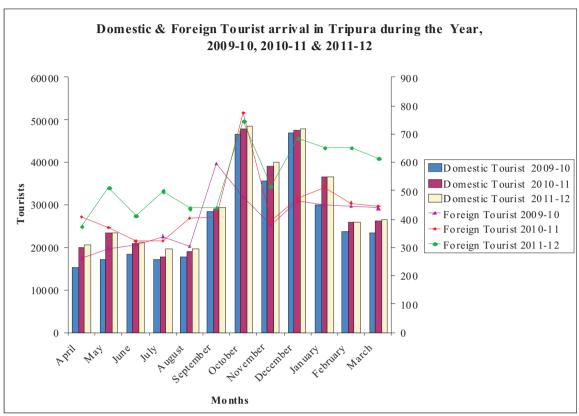


Fig.2: Monthly arrival of domestic and foreign tourists during 2009-10 to 2011-12.

Questionnaire based schedule survey: Total number of tourists surveyed was 250 covering all the eco-tourist spots. Main emphasis was given to know their opinion on the infrastructural facilities.

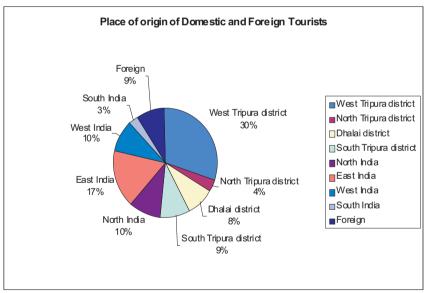


Fig.3: Place of origin of domestic and foreign tourists

Fig.3 shows that 51% of the tourists interviewed were local, i.e., the residents of Tripura. Total 40% domestic tourists came from different parts of India and remaining 9% was foreign tourists, mainly from Bangladesh and Nepal.

% age of Respondents **Facilities** Excellent Very Good Satisfactory **Below** good average 14 22 25 Accommodation 26 13 9 10 18 31 32 Transport Law and order 17 18 34 28 3 21 25 20 3 Cooperation from local people 31 33 30 25 4 Food 8 33 28 22 15 General environment

Table 1: General Feedback of Domestic/ Foreign Tourists

Table-1 shows that about 83% tourists are impressed by the natural environment of the ecotourist spots which is the basic criterion for the development of nature-based tourist industry. Data reveals that they are happy with the law and order of the state and local people are also cooperative. They have no complaint about food also. Only 2 - 4% tourists are not satisfied with the above four facilities available in the spots. But accommodation and transport facilities are less satisfactory as the percentage of unsatisfied tourists is 9 - 13 (Fig.4). Therefore much more emphasis should be given on these two sectors to develop this industry to a certain height.

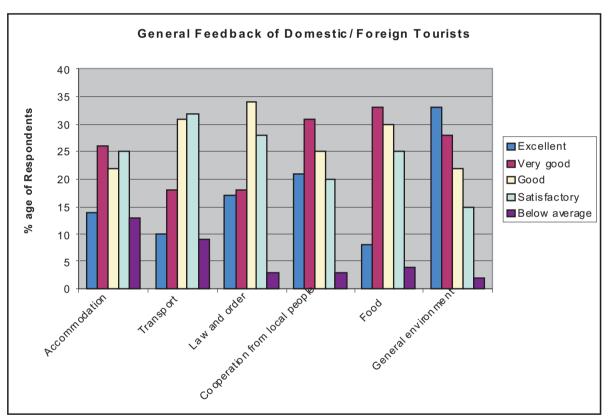


Fig.4: General feedback of domestic and foreign tourists

Majority of the tourists (42%) were first time visitors to Eco-Park and Wildlife Sanctuaries of Tripura. However, more than 32% respondents indicated that they had visited Eco-Parks and Wildlife Sanctuaries earlier more than twice and 26% tourists visited once or twice earlier. These figures indicate that nearly 58% respondents have found the spots attractive and have revisited or have inspired others to visit the spots and have accompanied them.

Among the sanctuaries Sipahijala attracts more tourists (21%), Trishna Sanctuary and Jampui Hill fetch 19% and 18% respectively and Tepania Eco Park 16%. Other spots are visited by 7-8% visitors. Kalapania Nature Park gets less attraction due to its remoteness, less publicity, transport problem etc. Dumboor Lake attracts a large number of tourists during Pous Sankranti Fare. Moreover, the area is still

sensitive for uprooting of a large number of indigenous people who sometimes creates some havoc and therefore the flow of tourists throughout the year is absent here.

Table 2: Expenditure Patterns and Per Person/day Budget of Domestic / Foreign tourists

Budget (in Rupees)	% age of Respondents
0-100	5
101-200	7
201-300	8
301-400	11
401-500	18
501-600	13
601-700	8
701-800	9
801-900	8
901-1000	7
1000+	6

Almost 18% respondent's daily expenditure for such visit ranges from Rs. 401-500 / person, this means that a four member tourist family or a group of four persons likely to spend between Rs.1600-2000 during their visit.

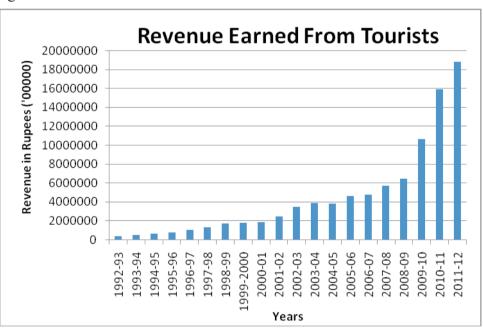


Fig.5: Revenue earned from tourists from 1992-93 to 2012

The above figure shows the direct revenue earned by the State Govt. from the tourists. Indirect revenue is calculated following a recognized system of Govt. of India which shows that if a tourist stays for three days at any spot, then it is assumed that he/she has spent Rs.1000 during the stay. In case of a foreign tourist the assumed amount is Rs.3000. This assumption is based on market survey including food, lodging, transport, purchase etc. Then total number of tourists \* 1000 (domestic) or 3000 (foreign) gives the revenue earned by the govt. Now, if we consider money circulation value as 1:5 (normal standard), then economic activity generated can be calculated by multiplying the revenue by 5.

Table 3: Year-wise Revenue Earned and Economic Activity Generated (1992-93 to 2011-12)

Year	Revenue earned (₹ in '00000)	*Economic activity generated
		( <b>7</b> in '00000)
1992-93	373396	1866980
1993-94	549205	2746025
1994-95	674102	3370510
1995-96	803173	4015865
1996-97	1096721	5483605
1997-98	1345604	6728020
1998-99	1774958	8874790
1999-2000	1786765	8933825
2000-01	1880473	9402365
2001-02	2490003	12450015
2002-03	3511900	17559500
2003-04	3914803	19574015
2004-05	3850092	19250460
2005-06	4654398	23271990
2006-07	4788000	23940000
2007-08	5708000	28540000
2008-09	6466000	32330000
2009-10	10650000	53250000
2010-11	15875000	79375000
2011-12	18787363	93936815

Source: Department of Tourism, Govt. of Tripura.

Table 3 clearly shows gradual increase in revenue earning and economic activity generated through the visit of tourists in Tripura. It is expected to increase many fold with the infrastructural development in the state.

# **Household Survey surrounding the Ecotourist spots:**

A Sample of 100 inhabitants surrounding seven ecotourism spots have been taken .The surveyed local people were purposefully taken from different professions and of various age groups.

<sup>\*</sup>Calculated by the researcher.

Table 3: Profession /Occupation of inhabitants surrounding the Ecotourism Places

Occupation	% age of Respondents
Govt. Servant	9
Businessman	12
Professional	3
Farmer	35
Labourer	41

A survey was conducted regarding occupation of inhabitants surrounding the ecotourism places and it was found that about 41% respondents are labourers, 35% farmers, 12% businessmen, 9% government servants and 3% professionals. Therefore, through employment generation, more than 41% people can get opportunity to earn better livelihood if eco-tourism industry develops in those places.

Education is considered as one of the fundamental indicators of well being of people for which nation based several program have been implemented and it cannot be denied that literacy rates have been progressing spatially in the country, but it cannot also be denied that a significant portion of people are still away from the holy touch of education despite the nation-wide educational strategies. The study area is not an exception. Here a look at educational status of local inhabitants indicates that 30% are illiterate, 31% have taken education to primary, 16% to

senior secondary, 11% graduate, 9% post-graduate and 3% were in professional courses.

The level of awareness of concept of ecotourism / tourism among the local inhabitants was tested and it was found that they were better equipped with this concept and about 54% of them explained the concept of eco-tourism in well defined manner. 14% of the respondents were partially aware and 32% were unaware of this concept. Therefore the survey reveals that the local people are very much aware of the positive impacts of eco-tourist industry which will raise their socio-economic status.

# SUGGESTIONS AND CONCLUSION

During field survey the tourists have pointed out some drawbacks of the tourist spots, they have visited which are appended below for consideration.

- Improvement in transportation facilities is essential for local people and for site seeing purposes.
- · Shopping Malls to be set up at every site to focus the local handicrafts.
- · Better relaxation facilities in Wildlife Sanctuaries, Eco-Parks with clean, hygienic food outlets.
- · More specialist restaurants serving better continental Cuisine to serve Domestic/ foreign tourists.
- · More information brochures about tourist attractions in Tripura and provision for a "Tourist Information Centre" at Promenade with qualified Professional Tourist Guides.
- Better Public Conveniences at all tourist spots.
- · More Handicrafts/Antique shops for sale of authentic Souvenirs.
- · Marketing available Motorbikes / Car on rent for local transportation.
- · More Sign Boards on roads to help the tourists.
- · Accessible Dial on Assistance; Phone Booth for Tourists to cater their needs.
- Paying Guest Accommodation, Bed Breakfast Scheme should be introduced.
- More "Tourist Police" to cater the need of the Tourists.
- · Setting up water sports facilities in Wildlife Sanctuaries and Eco Parks.
- · Increased accommodation in 3 star category hotels.

Eco-tourism is a happy marriage between traditional tourism industry and modern concept of sustainable eco-friendly development strategy of tourism which reduces its negatives and increases the welfare of mankind. Above discussion reveals that Tripura has very high potential of nature based tourist industry for which government has to take necessary steps to improve infrastructures including transport and communication system, accommodation facilities, tourist guides, proper advertising etc.

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