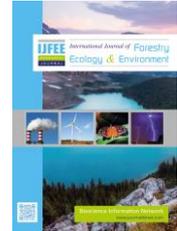


Published with Open Access at **Journal BiNET**

Vol. 02, Issue 01: 60-68

International Journal of Forestry, Ecology and EnvironmentJournal Home: www.journalbinet.com/ijfee-journal.html

Prospects of community based eco-tourism in Sundarbans: a case study at Munshiganj, Satkhira, Bangladesh

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Article received: 08.06.2020; Revised: 06.07.2020; Published online: 25 July 2020.

ABSTRACT

Nature-based tourism is accelerating with time throughout the world; meanwhile, Sundarbans has considered as one of the best nature-based tourism sites in Bangladesh whilst tiny local peoples participate in this tourism sector. This study examines the prospect of community-based ecotourism (CBET) in the study area for booming local people's participation. This study deals with environmentally responsible travel and visitation to relatively undisturbed natural areas that promote the conservation of nature with local people's involvement. The livelihood of locals in this area will be improved by increasing income opportunities through community-based ecotourism. We noticed the massive advancements of eco-tourism in Munshiganj at Shymnagar, Satkhira district while, the major portion of peoples were interested in getting them involved in ecotourism which can lessen the direct pressure on Sundarbans. Maximum peoples (96.3%) in the study area were attracted for involving and feel interested in working for community-based ecotourism like the house owners (20.73%), guides (20.73%), and boatmen (18.61%), also, they explained that no social, cultural and religious obstacles for developing CBET in this area. Well-planned tourism like CBET could provide economic and political incentives for proper management and conservation of Sundarbans.

Key Words: Sundarbans, Resources, Ecotourism, Sustainable and livelihood.

Cite Article: Dey, T., Ahmed, S., Bachar, B. K. and Kamruzzaman, M (2020). Prospects of community based eco-tourism in Sundarbans: a case study at Munshiganj, Satkhira, Bangladesh. International Journal of Forestry, Ecology and Environment, 02(01), 60-68.

Crossref: <https://doi.org/10.18801/ijfee.020120.07>



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I. Introduction

Community-based ecotourism (CBET) is an ecotourism venture that is characterized by high environmental consideration, increased control and involvement of the local people, as well as significant benefits for the host community (WWF, 2001). It is clearly distinguished from other

ecotourism ventures that are mostly or even totally planned and managed by outside operators and generate negligible benefits for local people (Scheyvens, 2015). Specifically, community-based ecotourism refers to tourism activities or enterprises that involve local communities that operate their lands based on their cultural, natural assets and attractions (Nelson, 2004). In Bangladesh, community based tourism (CBT) programs have been recently initiated under an Integrated Protected Area Co-management (IPAC, 2008–2013) project in several protected areas that cover hill and deciduous forests (Islam et al. 2013).

The largest single tract mangrove forests in the world, Sundarbans is a potential candidate for the application of CBT programmes (Bhuiyan and Moss, 2001). It is a potential candidate due to its global ecological importance, scenic beauty, rich biodiversity, friendly host communities, the presence of diverse livelihood groups and pleasant weather etc. (Islam et al. 2012). CBT has the potential to reduce anthropogenic pressure on the Sundarbans by providing political and economic incentives for conservation and it provides additional benefits to the regional and local economies (Weaver, 2006). Sundarbans is the home of famous species Royal Bengal Tiger (*Panthera tigris*) as well as 375 animals and 324 plant species (Iqball et al. 2010). The mangrove vegetation, spotted deer, tigers, crocodile and diverse bird-life is an attractive destination for such tours and ecotourism is considered to be one of the most feasible and promising developments for the Sundarbans (Hussain and Acharya, 1994). Already, Sundarbans is considered as a major tourism destination in Bangladesh. About 100,000 tourists including 2% foreign tourists visit this forest every year according to the Forest Department (FD) (USDA-IRG, 2009). However, commercial enterprises captured most of the benefits of tourism activities. There is hardly any participation in this growing industry except some direct employment of local communities, in the absence of a systematic approach of benefit-sharing (Iqball et al. 2010). Sundarbans provides most of the economic activity of the southern region of Bangladesh. Ecotourism has great potential to contribute to the economy as a conservation process by itself which further could be safeguard for the Sundarbans. About 3.5 million people living around the Sundarbans Reserve Forest (SRF) are directly or indirectly dependent on the eco-system services of this forest (Giri et al. 2008). Experiences from community development exercises indicate successful integration with the local community in conservation and it is crucial to understand their view about the proposed management actions as well as their relationship with the ecosystem (Kumar and Kant, 2005).

Sundarbans provide support to livelihood activities and performs ecological functions (Shah and Dattam, 2010). Sundarbans is deteriorating rapidly for various reasons but some peoples want to stay closer to nature. So, a new trend starting around the world which is called eco-village. An eco-village is a place where the daily livelihood of the people and each component of the development should be environmentally friendly (Iqball et al. 2010). At present, people are realizing the ecological development in each activity in the Sundarbans area for sustainable development to persist the Sundarbans and want pollution or hazard free natural resources (Iqball et al. 2010). However, tourism has some negative impacts on the mangrove ecosystem such as habitat destruction due to hotel and road construction, coastal pollution for tourism activity leads to eutrophication and species loss. For solving this problem, ecotourism can be a solution as it has a suitable management strategy to reduce the environmental impacts of tourism (Iqball et al. 2010). As ecotourism is being developed increasingly in many countries, it is an opportunity for apparently low impact use of this forest that can provide high economic returns simultaneously (Khanom et al., 2011). We have little information concerning the community perception about tourism in the Bangladesh Sundarbans (Islam et al., 2013). The present studies were explored to assess attitudes of local communities for tourism development and identify prospect of CBET surrounding the Sundarbans. The study result will be useful to select appropriate people for future engagement and design effective policies for ecotourism development around the Sundarbans.

II. Materials and Methods

Study area

The study area is located between Latitudes 21°36' – 22° 24' N and Longitudes 89° 00' – 89° 19' E, comprising approximately about 1968.24 sq. km. This area is bounded by Sundarbans on the south and east side, Burigoalini union on the north, Ramjan Nagar and Essoripur union on the west (Figure 01).

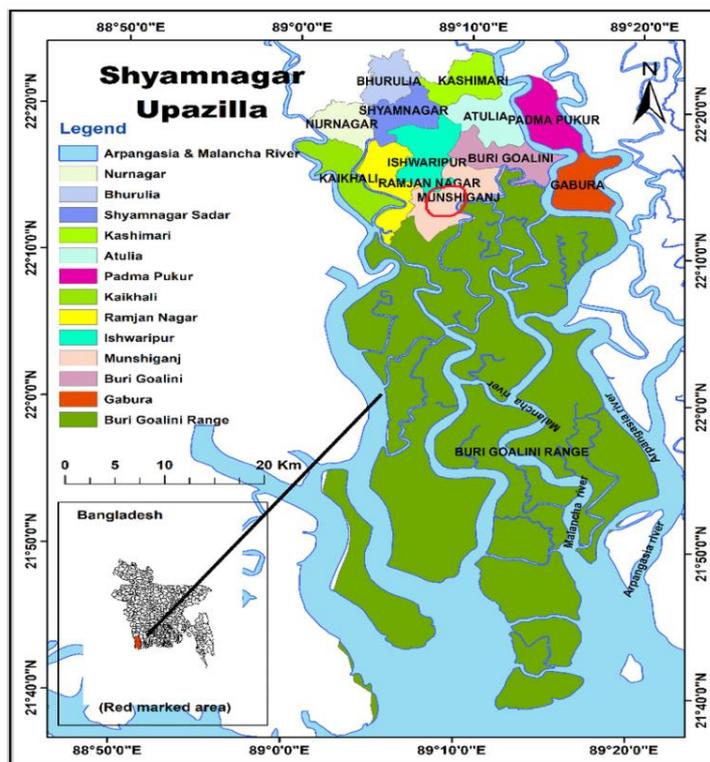


Figure 01. Map of the study area (Source: Rahman, 2018)

General description of the study area

To get a general idea about the study area a table is given below. In the study area, about 45.51% of people are literate and population density is 483 person/km² (Table 01).

Table 01. General description of the study areas (Bangladesh Bureau of Statistics, 2010).

	Munsiganj Union
Geographical position	22.208N 89.108E
Administrative district	Satkhira
Population density of the administrative district	483 person/km ²
Literacy rate of the administrative district	45.51%
Household size of the administrative district	4.8
Proportion of area under farm use of the administrative district	49%
Proportion of farm households of the administrative district	54%

Reconnaissance survey

To get a view of the nature of the study area before data collection, we conducted a reconnaissance survey to acquire some basic ideas regarding community-based ecotourism through the personal interview with the local people of the study area. During the survey, views were exchanged with the peoples about the objectives. This reconnaissance survey has helped to realize the present condition of the study area.

Questionnaire preparation and testing

Based on the objectives of the study, a questionnaire was prepared for the selected community. Then, the questionnaire was tested for fulfilling the objectives or purpose of the study and previously selected information had collected for the research. Finally, the final questionnaire was prepared by cutting or adding some points.

Sampling design

In this study, four villages (Munshiganj, Horinagar, Singhortoli and Chunkuri) were selected nearby Sundarbans under Munshiganj union. Total of 82 peoples were selected purposively as representative of the local people for taking an interview.

Questionnaire survey and data collection

To obtain an information questionnaire was prepared to correspond with all aspects. A questionnaire survey was done with purposive selection based on diversity of sex and occupation in that area. For attaining better output randomness was strictly ensured. Direct questions and different scales were used to obtain information like sex, age, education, profession, religion, marital status, income, house type, boat type, hotel type, interested sector, opinion and others. With meticulous care, all the information required for the study was collected.

Data collection procedure

Primary data collection

Primary data was collected through personal interviews procedure. To cover the necessary information for the study, a set of questionnaire was developed. A total of 82 local peoples were interviewed at Munshiganj union (Shyamnagar upazilla) in the Satkhira district during January of 2015. Wide ranges of indicators were selected in various aspects of the communities in the study area. The indicators included sex, age group, religion, marital status, education, income, present profession and interest in CBET based on a profession.

Secondary data collection

Secondary information such as statistical data, reports, maps has been gathered from various Government and Non-government organizations such as Forest office (Kadamtoli, Satkhira), Joar Ecotourism (Munshiganj, Satkhira), Rupantor Ecotourism (Khulna). Information also collected from relevant papers through an internet search and related books from Forestry and Wood Technology Discipline, Life Science School, Khulna University.

Data processing and analysis

The data were processed, analyzed and interpreted for finding the result of the study. After completion of data collection from the response to the questions of the interview, schedules were transferred to a master sheet to facilitate tabulation. The report of the study is written systematically by using the computer program of MS word, Ms Excel and SPSS (11.5).

III. Results and Discussion

Community-based eco-tourism focuses on local cultures, wilderness adventures, volunteering, personal growth and teaming new ways to live on the earth. Community-based ecotourism (CBET) has many programs for minimizing the adverse effects of traditional tourism activity on the natural environment and enhancing the cultural integrity of localhost. For evaluating environmental and cultural factors, initiatives by the host to promote recycling, energy efficiency, water reuse and others. In addition creation of economic opportunities for local communities are an integral part of community-based ecotourism. There are some of the fields closely related to community-based ecotourism like historical, biological and cultural conservation, preservation and sustainable development etc.. For formulating and developing eco-tourism policies, many professionals have been involved. According to the World Tourism Organization (WTO), ecotourism is considered the fast-growing market in the tourism industry all over the world. For giving a clear picture of the prospects of CBET in the study area a detailed analysis was made based on these parameters and presented in this section below.

Age group

In the study area, it was found that 24.4%, 40.2% of respondents were included in age group of 26-35, 36-45 years, respectively and the highest number of respondents was in the middle age group (36-45) (Figure 02). Iqball et al. (2010) found that 30.30%, 39.39% and 21.21% of local people belonged to the age group is below 25, 26-40 and 41-55 years respectively at East Dhangmari village in Dacope Upazilla.

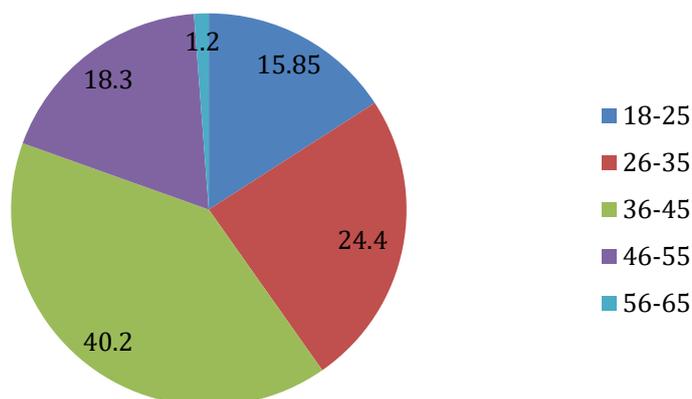


Figure 02. Age group of the respondents.

Sex

The survey was conducted among the 82 local peoples from the study area, of which 60 (73.2%) were males and 22 (26.8%) were females. [Iqball et al. \(2010\)](#) found 10 (31.3%) were male and 23 (69.3%) were female among 33 respondents who were involved in tourism activity respectively at East Dhangmari village in Dacope Upazilla.

Marital status

In the study area, it was found that 11 (13.4%) respondents were single and the rest 71 (86.6%) respondents were married. On the other hand, no widow and divorced have been documented. [Ahmed et al. \(1996\)](#) studied at Gallamari in Khulna district and they obtained married fishermen respectively 92%, 94% and 72%.

Educational status

Human resource development largely depends on literacy and educational attainment as there is a strong relationship between society and education. It was found that most of the people have knowledge up to primary level 48.8% as well as others 8.5%, 29.3%, 6.1%, 3.7%, 1.2% and 2.4% of respondents were included education of illiterate, high school, SSC, HSC, graduate and above respectively ([Table 02](#)). Among the rest, 15% have only class one to five levels of education and 9% have class six to ten education. [Iqball et al. \(2010\)](#) stated that education is needed to build awareness among people to develop facilities in the area of East Dhangmari village in Dacope Upazilla.

Table 02. Educational status of respondents

Valid	Frequency	Percent	Valid Percent	Cumulative Percent
1	7	8.5	8.5	8.5
2	40	48.8	48.8	57.3
3	24	29.3	29.3	86.6
4	5	6.1	6.1	92.7
5	3	3.7	3.7	96.3
6	1	1.2	1.2	97.6
7	2	2.4	2.4	100.0
Total	100	100	100	

*1= Illiterate, 2= Primary School, 3= High School, 4= SSC, 5= HSC, 6= Graduate, 7=Above

Profession

Among respondents 26.8%, 36.6% were housewives and fishermen, respectively and dominant percent of peoples are fishermen here ([Figure 03](#)). They collect fish, golpata (*Nypa fruticans*) and honey during collecting seasons. The current study dealt with all females' homemakers and found that they have no income but motorcycle driving is a popular and profitable service here. Though Bangladesh is agricultural land, some of the peoples here are farmers for lacking available cultivable land. [Iqball et al. \(2010\)](#) found that 27.3% forest fisher, day labour 21.1% at East Dhangmari village in Dacope Upazilla.

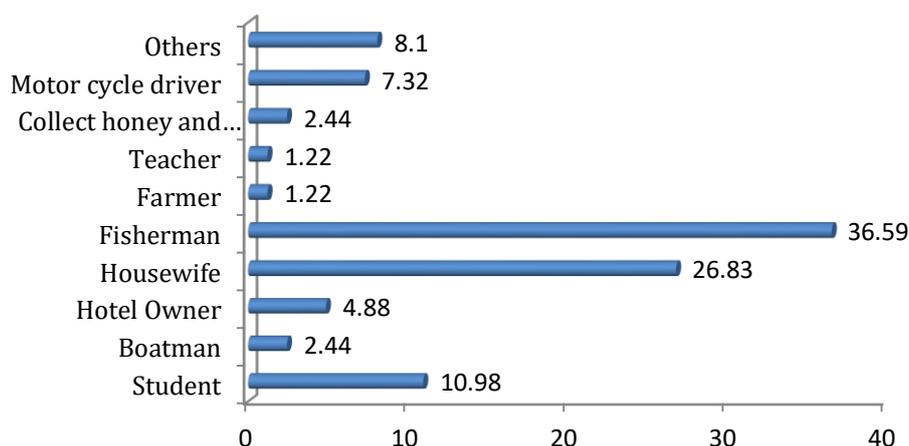


Figure 03. Profession of the respondents.

Income of the respondents

Firstly, it should be admitted that it's complicated to obtain income data partially, because of people's reluctance to reveal the exact income and partly as they do not have any proper account of their income. Most of the respondent's income was between Tk. 5001-10000 per month and some respondents (11) out of 82 incomes are below to tk-5000 per month (Table 04). Only a few people's incomes was above Tk. 1000 per month and housewives had no income. Iqball et al. (2010) found an average income per year was Tk. 48000, 45000, 50000, 70000 for fishers, wood-cutter, farmer and trader respectively at East Dhangmari village in Dacope Upazilla. Shah and Datta (2010) found at Southkhali union in Sarankhola thana of Bagerhat district about 50% of the forest dependent households earn 75%-100% of their total income from the forest resources.

Table 03. Income of the respondents.

Valid	Frequency	Percent	Valid Percent	Cumulative Percent
1	11	13.4	13.4	13.4
2	37	45.1	45.1	58.5
3	2	2.4	2.4	61
5	32	39	39	100
Total	82	100	100	

*1= <5000, 2= 10000, 3= 10001-20000, 4= >20000, 5= no income

Existence of community-based ecotourism in the study area

Community-based ecotourism was not running here, but a non-government organization (NGO) JOAR funded by the International Union for Conservation of Nature (ICUN) started it in one village named Munshiganj. They helped people with house making and producing organic food for tourists. Two peoples from this village got this kind of facility initially. Other villages of study union had no existence of community-based ecotourism, but some NGOs are trying to start.

Interested people

All the study peoples except three (3.7%) were interested to involve in community-based ecotourism (Table 04).

Table 04. Interested people for including to CBET.

Valid	Frequency	Percent	Valid Percent	Cumulative Percent
1	79	96.3	96.3	96.3
2	3	3.7	3.7	100
Total	82	100	100	

*1= yes, 2= no

Interested profession

The respondent of the study area was interested in all sectors except hawker and souvenir seller. All women (25.61%) were interested in cooking at their homes and hotel. It was found that 20.7%, 18.3%,

3.7%, 20.7%, 1.2%, 25.6% and 9.8% of people were interested in house owner, boatman, hotel owner, guide, homemade seller, cooker and transporter respectively (Figure 03). Islam et al. (2013) found most of the people showed an earnest willingness to keep away from extracting natural resources from Sundarbans if they will find alternative income sources.

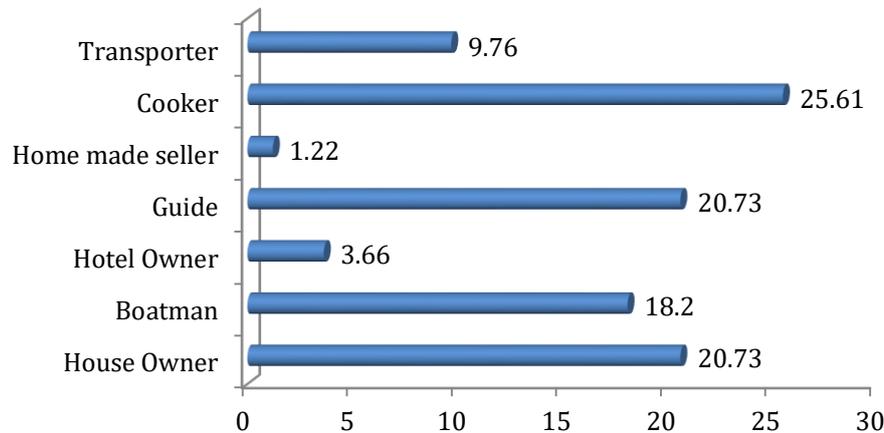


Figure 04. Interested profession of the respondents.

House and boat type of respondents

Most of the houses of interested people (95.1%) were local type, made with soil and golpata (*Nypa fruticans*). Three peoples among interested had semi Paka tin-shed, and one had building. On the other hand, most of the interesting people boats were small (64.7%) types, and some had medium (35.3%) types of boats. According to most of the respondents from their experience, tourists will prefer local type houses mostly.

Interest people to cook for tourist

Most of the women were interested to cook food in their houses. On the other hand, few women were interested for cooking in restaurant and some were interested to cook in boats.

Religious and cultural obstacle

Most of the study people (96.3%) told that they had no religious, social and cultural obstacle for developing community-based ecotourism except three (two males and one female). People will come to their locality and stay in their house that is not safe for their young girls and women.

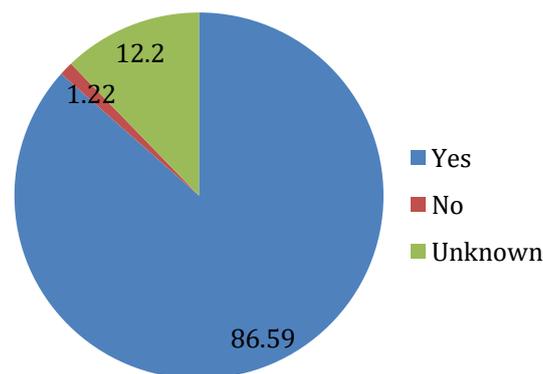


Figure 05. Perceptions of respondents about conserve forest.

Conserving forest

Most of the people (86.6%) except one told that it would help to conserve the forest and its resources rather than other professions. In addition to ten peoples (12.2%) had no idea about this (Figure 05). It will be helpful for creating employment opportunities in the study area by producing alternative working sectors through community-based ecotourism. Shah and Datta (2010) stated that about 49% of the households depending directly on forest resources for their livelihood at varying degrees extracting mostly fuelwood (74%) that is a significant threat to Sundarbans. The primary conservation tourism or eco-tourism issue in the Sundarbans arises from the uncontrolled tourism activities (Iqbal

et al. 2010). Although the present tourism in Bangladesh is not enormous, it can be a major threat to the natural environment at the estimated 1.3% growth rate per year in the future (SBCP, 2003; Islam, 2003). Therefore, ecotourism can be a tool for biodiversity conservation and rural development (Aronsson, 2000). Careful management and planning are required for achieving these goals. So, the development of community based eco-tourism (CBET) can be a good way to reduce this threat and conserve the Sundarbans.

IV. Conclusion

There is a great prospect for developing community-based ecotourism (CBET) in this area which can be an excellent example for our country if proper steps will be taken. Considering the above discussion about the feasibility of CBET, we found that most of the respondents had a very positive attitude towards CBET and eager to involve in community-based ecotourism as well as security of tourists is satisfactory in the study area. As most of the respondents in the study area are eager to involve in CBET, and tourist security is needed for developing CBET, so there has a great scope for developing community-based ecotourism. Bangladesh is a small country with a large population, so it is very important to involve local people with ecotourism. The Community Based eco-tourism offers many opportunities for reflecting on the importance of sustainability and the possibilities of implementing approaches that move us in a new direction. As the study site is poor dominated area, it is very important to improve their economic condition besides conserving the forest. If CBET runs properly, it will carry benefits for both local peoples and tourists in that area and the conservation of Sundarbans. Before promoting eco-tourism activities, authorities should assess eco-tourism carrying capacity and mitigate the potential impacts of eco-tourism. So, the government and other organizations should take proper steps for the development of community-based ecotourism here.

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HOW TO CITE THIS ARTICLE?

MLA

Dey, T. "Prospects of community based eco-tourism in Sundarbans: a case study at Munshiganj, Satkhira, Bangladesh". *International Journal of Forestry, Ecology and Environment*, 02(01) (2020): 60-68.

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