Rural Tourism and Biodiversity Conservation- a Study in Nameri National Park, Assam, India

Tanuja Tamuli Phukan¹, Lalit Saikia²* and Nurujjaman Laskar¹

¹Department of Business Administration, University of Science & Technology Meghalaya, 9th Mile, Dist: Ri Bhoi 793101, Meghalaya, India
²Department of Earth Science, University of science & Technology Meghalaya, 9th Mile, Dist: Ri Bhoi 793101, Meghalaya, India

(Received 12 February, 2024; Accepted 7 April, 2024)

ABSTRACT

Rural Tourism is one type of tourism where tourists visit rural areas and experience the nature, culture, tradition, green environment, village life-style, local food etc. Ethnic tourism, nature tourism, ecotourism, farm tourism or agricultural tourism and adventure tourism are the different forms of rural tourism. This paper studies issues related to rural tourism and biodiversity conservation from primary data collected from field survey in Tarazan forest village situated in buffer zone of Nameri National park, Assam. 61% respondents are of the opinion that one cause of man-animal conflicts is rural tourism. More than half of the respondents strongly agreed that tourists are polluting the natural tourism resources and local people are also facing problems from the tourists. Respondents strongly agreed that sustainable rural tourism with more rules and regulations are very much needed for conservation of the biodiversity and pollution reduction in the national park.

Key words: Rural tourism, Biodiversity Conservation, Nameri National Park, Tarazan village.

Introduction

Rural tourism is related to nature, culture, tradition, ethnicity, cloth, food, villagers, unique housing types or designs, greenery, agriculture, environment, ecology etc. Lascurain (1983) coined the term ‘Rural tourism’ to describe nature-based travel to relatively undisturbed areas. Rural tourism is one of the best small-scale businesses and is associated with low density population, eco-friendly infrastructures. Rural Tourism is associated with different features like staying in the eco-camps, visiting the rural areas, experiencing the nature, culture, tradition, green environment, village life-style, local food etc. Ethnic tourism, nature tourism, eco tourism, farm tourism or agricultural tourism and adventure tourism are the different forms of rural tourism. One goal of rural tourism is to minimize the poverty of the rural people (Holland et al., 2003). Rural tourism is related to biodiversity conservation and protection of natural resources (Zhou and Chen, 2006).

Biodiversity means variety and variability among living organisms from all sources. Biodiversity is at the heart of what drives the tourism industry (CBD, 2021). Tourist destinations depend on their natural beauty to attract visitors and enchant them during their stay. Tourists are attracted by natural landscapes which harbour significant biodiversity. On the contrary, there is an explicit recognition that tourism sector contributes to biodiversity loss through the clearing of land for tourism develop-
ment and through physical disturbance to sensitive areas caused by tourism activities (Jones, 2022). Rural tourism is responsible for the sustainability of a protected area, places with natural beauty. Sustainable rural tourism is envisaged as leading to management of all resources while maintaining cultural integrity, essential ecological processes, biological diversity and life support system (Eagles et al., 2002). Rural tourism is an enlightening natural travel experience that contributes to the conservation of ecosystem while representing the integrity of the host community (Seace et al., 1992). Jackus et al. (1993) studied the rural tourism and sustainable conservation of biodiversity in the Appalachian Highlands of Tennessee and North Carolina. Mehlhop et al. (1994) studied the ecological basis for ecosystem management for sustainable rural tourism phenomenon. Kinsley (1994) highlighted nature-based ecotourism for ‘Sustainability’.

There are nearly 172 rural tourism destinations in different states of India and protected areas and they are major destinations of rural tourism. Local communities including the tribal and non-tribal people i.e., villagers of Nameri National Park in Assam are linked with tourism as owners of different accommodation sectors like home stays, eco-camp, resorts etc., guide, handicraft provider or coach of adventure sports activities like river rafting, trekking, souvenir or local food seller etc. which act as alternative livelihood options (Bhattacharya, 2003). Descriptive research on rural tourism is helpful as different practical solutions can be applied from field survey findings. For example, solution of problems faced by the visitors in Kumaun lake area of Uttar Pradesh was highlighted after field survey (Khanka and Jalal, 1983).

Nameri National Park (Latitude 26°50’ 48” to 27°03’ 43” North and Longitude 92°39’ 00” to 92°59’ 00” East) covers an area of 200 km² in the foothills of the eastern Himalayas in Assam. It is contiguous with Pakhui Wildlife Sanctuary in Arunachal Pradesh to the north, and together they exceed 1,000 km² with an elevation ranging from 79 to over 1,500 meters ASL. Nameri national park is rich with tropical evergreen, moist deciduous, cane and bamboo semi evergreen forest. The national park is famous for tiger, elephant, white-winged wood duck, hog deer, sambar, clouded leopard, wild dog or different types of resident and migratory birds etc. The forest has about 600 different species of flora and fauna. There are a few forest villages and one agricultural farming corporation in the western buffer zone of the national park. The area is famous for different adventure sports like angling, river rafting, trekking, bird watching, elephant safari etc. An attempt was made to study linkages between rural tourism and biodiversity conservation in selected village in buffer zone of Nameri National Park. Tourist flow, community participation, benefits from rural tourism are highlighted with emphasis on issues related to biodiversity conservation.

Materials and Methods

Tarazan forest village situated in the buffer zone of Nameri National park was selected for study. Almost all the villagers are directly or indirectly related to tourism. Primary data was collected from local people and tourists through separate interview schedules during September’23 – February’24. One adult respondent was chosen randomly from each household of 100 households in the study area.100 domestic tourists were approached who came from different parts of India to enjoy the natural as well as man- made resources available in the Nameri National park. Out of the 100 tourists, 68 were male and 32 were female. Secondary data on number of tourists was collected from accommodation centers in the study area.

Two variables were chosen for statistical analysis of data: Biodiversities’ Problems (BP) and Biodiversities’ Conservation Need (BCN). Specific parameters were chosen for each variable as shown in Table 1.

To establish the relationship between variables and the parameters, Weightage of the independent variables were calculated through 5 point Likert Scale from the responses through structured questionnaire distributed among the villagers during field survey. The relations between variables and parameters had been calculated using SPSS software.

Results and Discussion

It was observed that tourists like to stay in accommodation centers in the Tarazan village mainly for eco-friendly nature, rural life and ethnic cuisine. Number of tourists staying in three accommodation centres namely Brahmaputra Jungle Resort, N-Palky camp and Nameri Balogora Camp during September’23-February’24 are shown in Figure 1.
Tourists visited the park for different purposes like educational tour, pleasure, leisure or recreational, business, rural tourism etc. Out of 100 tourists, number of tourists visited for educational tour, rural tourism, business, and adventure tourism were 41, 48, 22 and 47 respectively. 69 tourists preferred tent and 43 tourists preferred traditional hut for accommodation. There is value addition in natural and cultural resources of the area through rural tourism.

Engagement of the villagers in different activities are shown in Figure 2.

Persons from 34 families are engaged as employee in accommodation centers. 25 persons were engaged as tourist guides. Selling traditional items, adventure tourism activities, transportation are other areas where local people are involved.

The villagers expressed that they were benefited socially, mentally and economically from tourism. Out of 100 respondents, 97 persons commented that rural tourism is an alternative livelihood option. Tourism shares 81-100% family income in 37% respondents. Showcasing tradition, culture, ethnicity, food, humble behavior, cloth, folk music, drama and dance, folk instruments, religious belief etc. in front of the tourists are source of income for the villagers. Activities related to rural tourism with financial gain offer some sort of economic stability to families.

61% respondents have strongly agreed rural tourism is one cause of man-animal conflicts in the locality. 61% respondents also have strongly agreed that most of the tourism activities are nature-based, and that is harming nature. However, respondents deny increasing harm on the natural habitat from development of rural tourism. 50% respondents have strongly agreed that tourists are responsible for pollution in the park. More than half of the respondents have strongly agreed that tourists are polluting the natural tourism resources and local people are also facing problems from the tourists. 50% respondents

---

**Table 1. Variables and parameters selected**

<table>
<thead>
<tr>
<th>Sl. No</th>
<th>Variables</th>
<th>Parameters</th>
<th>Statements</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Biodiversities’</td>
<td>BP1</td>
<td>Men and animal conflicts are seen due to rural tourism</td>
</tr>
<tr>
<td></td>
<td>Problems (BP)</td>
<td>BP2</td>
<td>Most of the tourism activities are nature-based, and these are harming nature.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BP3</td>
<td>Harm on the natural habitat is also increasing with development of rural tourism</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BP4</td>
<td>Rural tourism lovers are responsible for pollution in the park</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BP5</td>
<td>Local people are facing problems from the tourists</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BP6</td>
<td>Tourists are polluting the natural tourism resources</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BP7</td>
<td>Due to the construction of accommodation sites in the park, the habitats of the animals are destroyed as well as becoming less</td>
</tr>
<tr>
<td>2</td>
<td>Biodiversities’</td>
<td>BN1</td>
<td>More rules and regulations should be applied for the tourists to reduce the pollution in the national park</td>
</tr>
<tr>
<td></td>
<td>Needs (BN)</td>
<td>BN2</td>
<td>National park needs proper development and modifications</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BN3</td>
<td>Protection of biodiversity is needed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BN4</td>
<td>Conservation of the biodiversity is very much needed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>BN5</td>
<td>Sustainable rural tourism is very much needed for the conservation of the biodiversity in the park</td>
</tr>
</tbody>
</table>

**Fig. 1.** Tourists’ accommodation in three locations in the study area

**Fig. 2.** Villagers involved in different activities related to tourism
have strongly agreed that more rules and regulations should be applied for the tourists to reduce the pollution in the national park. 42% respondents are of the opinion that the habitat of the animals is destroyed and is shrinking due to the construction activities (e.g., accommodation centers) in the park. More than half of the respondents are strongly agreed that sustainable rural tourism is very much needed for the conservation of the biodiversity in the park.

Conclusion

Some villagers of the study area are of concern that due to the increase of activities related to rural tourism, pollution and/or destructions of the area is increasing. Local people should understand ecological services and possible threats from tourism activities. People involved in tourism services should take steps to change attitudes of tourists towards the environment and biodiversity. Tourists should be well informed about importance and significance of resources available in the study area. Strict rules can be framed to control behaviour of tourists. Some other recommendations for improvement of rural tourism ensuring sustainable rural tourism as well as biodiversity conservation are: good road connectivity with nearby villages and towns, good sanitation facility, sufficient number of dustbins in prominent locations, distinct display of Do’s and Don’ts for conservation and pollution control and awareness on rural tourism and importance of biodiversity conservation. While taking initiatives to develop rural tourism, impact of activities related to tourism on biodiversity and overall environment of the area should be given due importance.

Acknowledgement

This paper is a part of research work carried by the first author for PhD in the Department of Business Administration at University of Science and Technology Meghalaya (USTM). The authors acknowledge the Department of Business Administration, USTM, owners/ managers of accommodation centers, the village headman of Tarazan Village and all respondents including villagers and tourists for kind support and help during data collection.

Conflict of Interests: None

References


CBD, 2021. No guilt trips: tourism is part of the solution for nature, Convention on Biological Diversity (from Jones, 2022)


