

Wildlife Tourism in Assam: An Analytical Study of Potential, Tourist Trends, and Challenges

Neha Gupta

A scholar from Economics Department, Sidho-Kanho-Birsha University, Purulia, West Bengal, India.

Abstract-- Wildlife tourism is an important form of nature-based tourism. This focuses on observing, experiencing and appreciating wild animals, birds, plants and their natural habitats. It is mainly associated with national parks, wildlife sanctuaries, forests, wetlands and other protected areas. The growing interest in biodiversity and natural environments has increased the importance of wildlife tourism as a means of promote tourism development and wildlife conservation. Properly managed wildlife tourism contributes to the protection of natural habitats, generate revenue for conservation activities and provide employment and livelihood opportunities for local communities. It also promotes environmental awareness and adopt responsible behaviour among tourists. In this regards, Assam is an important destination for wildlife tourism because of its rich biodiversity, extensive forests, grasslands, wetlands, rivers and protected areas. The state has seven National Parks and 18 Wildlife Sanctuaries, which provide habitats for several endangered and rare species such as one-horned rhinoceros, Royal Bengal tiger, Asian elephant, wild water buffalo, golden langur and hoolock gibbon. Wildlife tourism has emerged as one of the rapidly expanding segments of the tourism industry in Assam. Therefore, this paper seeks to examine the potential of wildlife tourism in Assam, contribution and major challenge of wildlife tourism.

Keywords--wildlife tourism, national parks, potential, trend of tourism, revenue/income.

I. INTRODUCTION

Tourism is a temporary movement of people from their usual place of residence to another destination for leisure, recreation, business, education, culture, religion, or other purposes. Tourism is also an important economic activity because it generates employment, increases income, supports local businesses, promotes cultural exchange, and contributes to regional development. Tourism classified into different types based on the purpose of travel and the nature of the destination. Domestic tourism involves travelling within one's own country, while international tourism involves travelling to another country. In this regards, wildlife tourism has emerged an important and rapidly growing form of tourism. This involves travelling to natural areas to observe, experience, and appreciate wild animals, birds, plants, and their natural habitats.

It is primarily associated with national parks, wildlife sanctuaries, biosphere reserves, forests, wetlands, and other protected areas. Major wildlife tourism activities include wildlife safaris, bird watching, nature walks, wildlife photography, camping, and guided tours. Wildlife tourism also focuses more strongly management of nature and biodiversity and play an important role in conservation and sustainable development.

Wildlife tourism plays a significant role in economic development and growth. National parks and sanctuaries attracts both domestic as well as international tourists. This generating income or revenue through entrance fees, safari charges, accommodation, transportation, food, guides, and other tourism services. This income contributes to the maintenance and management of these protected areas. Moreover, Wildlife tourism also provides employment opportunities for local people as tour guides, drivers, hotel workers, safari operators, handicraft producers, and small business owners. Thus, properly managed tourism provides alternative livelihood opportunities to communities living around protected areas. Revenue generated from tourism activities used for wildlife protection, habitat management, anti-poaching activities, infrastructure development, and environmental monitoring.

Assam has potential for develop wildlife tourism because of its rich biodiversity, forests, wetlands, grasslands, rivers, and protected areas. The state is particularly famous for its one-horned rhinoceros, Asian elephant, tiger, wild buffalo, hoolock gibbon, golden langur, and several species of birds and migratory birds. Kaziranga National Park and Pabitora wildlife sanctuaries are the most prominent wildlife tourism destination in Assam. It is internationally recognised for its population of the greater one-horned rhinoceros. Other important destinations include Manas National Park, Nameri National Park, Orang National Park, Dibru-Saikhowa National Park, Raimona National Park, and Dihing Patkai National Park are also famous for its natural beauty and sighting wild animals. Wildlife tourism contributes to community development of Assam. Local communities benefit when tourism businesses involve them in decision-making and provide opportunities for employment and entrepreneurship.

Homestays, local handicrafts, traditional food, cultural performances, and community-based tourism helps retain tourism income within local areas. Therefore, community participation is an important and significant component of sustainable wildlife tourism.

However, wildlife tourism creates several challenges in tourism sector. Excessive tourist numbers, vehicle movement, noise, littering, waste generation, and disturbance of animals affects negatively in wildlife and their habitats. Construction of roads, hotels, resorts, and other tourism infrastructure also contribute to habitat fragmentation. In addition, poorly managed tourism increases pressure on water and other natural resources. Climate-related hazards such as floods and erosion, which are significant concerns in Assam and further affects wildlife habitats and tourism infrastructure. Chakrabarty, P., Pan, S., & Mandal, R. (2019) examined the growth process and future prospects of wildlife tourism arrivals in Assam. The statistical analysis indicated a significant upward trend in wildlife tourist arrivals in Assam and especially in Kaziranga National Park. Forecast result estimated that tourist arrivals are likely to rise over the coming years. However, the study also highlighted that wildlife tourism development is unevenly distributed across the national parks of Assam. This indicated that still several protected areas remain underutilized despite possessing substantial ecological and tourism potential.

Barua, P. (2023) explored the growing concerns over environmental degradation and the unsustainable exploitation of natural resources. The study pointed out that ecotourism potential strategy for achieving the balancing environmental conservation and economic development. Well managed of ecotourism, contributes to conserve biodiversity, enhance rural livelihoods, strengthen environmental education, and promote sustainable tourism development. However, realized these benefits requires effective policy implementation, stakeholder collaboration, community participation, and continuous monitoring of ecological impacts to ensure that tourism growth remains environmentally and socially sustainable.

Goswami, J. (2025) examined the geotourism's potential of landscapes in Manas and Kaziranga National Parks. The author also pointed out that integrating of sustainability, community participation, and conservation into tourism planning. Tourism requires careful planning and effective management to balance and maintain the environmental conservation and socio-economic benefits. He also focused on community participation as a fundamental component of sustainable tourism because local communities is significant role in protecting the ecological and geological resources that attract visitors.

Das, N. (2013) highlighted that Community-based ecotourism (CBET) as an important approach to sustainable tourism thought integrating environmental conservation, community participation, and local economic development. The study emphasized that ecotourism depend on when local communities actively involvement in planning, management, and benefit-sharing.

Kanta et al. (2021) conducted a bibliometric review of wildlife tourism (WT) and described as an emerging and multidisciplinary sector of tourism. This area involving on tourist's experiences and interactions with wildlife in wild, captive, and semi-captive settings. It study also highlighted that the growing importance of emerging economies has increased demand for wildlife tourism destination in both developing as well as developed countries. The study pointed out that expansion of wildlife tourism research and comprehensive understanding of the overall research structure and major themes remains limited.

Higginbottom, K. (2004) emphasized that wildlife tourism as an important form of tourism. It has the potential to generate economic benefits while simultaneously supporting wildlife conservation and local communities. The study described wildlife tourism encompasses a diverse range of activities in which interaction with wild animals and importance experience of tourists such as wildlife safaris, bird-watching, wild animals sighting and other wildlife-based recreational activities. At the same time, wildlife tourism generates both positive and negative impacts on environment and socio-economics. Therefore, requires appropriate planning, design, and management to ensure that tourism development does not undermine wildlife and environmental resources.

II. METHODOLOGY

The present study adopts a descriptive and analytical research approach to examine the development and significance of wildlife tourism in Assam. The study is based mainly on secondary data collected from major sources of include the Directorate of Tourism, Government of Assam; Assam Tourism Policy 2022; Statistical Handbook of Assam; Assam Forest Department; Assam State Disaster Management Authority (ASDMA); Ministry of Tourism, Government of India; and other relevant published articles, reports, and studies. The study covers the seven wildlife tourism of Assam such as Kaziranga, Manas, Nameri, Orang, Dibru-Saikhowa, Raimona and Dihing Patkai and also selected Wildlife Sanctuaries such as Pobitora. The study analysing the tourism trends of total domestic and international tourist arrivals during 2019-23 and its percentage contribution.

Overall revenue data for same period also analysed to assess the economics contributions. Descriptive statistical techniques such as totals, percentages, percentage shares and year-wise comparisons were used for the analysis. The study also examines the major challenges affecting wildlife tourism.

III. OBJECTIVE

To examine the potential of wildlife tourism in Assam's National parks.

To analyse the trend of tourist arrivals and contribution of tourism revenue.

To identify the major challenges of wildlife tourism in Assam.

IV. DISCUSSION

Assam is known as the “**Gateway to North-East India**”, due to its strategic geographical location and its important role in connecting the north-eastern region with rest of the country. It shares borders with several north-eastern states including Meghalaya, Arunachal Pradesh, Nagaland, Tripura, Manipur, and Mizoram. Its location also provides important connectivity to the other north-eastern states as a major transportation, commercial and administrative hub of the region. This connectivity networks facilitate the movement of people, goods and tourists between Assam and other north-eastern states as well as mainland India. Assam is one of the most naturally beautiful and ecologically diverse state of North-East India. It is Situated in the eastern Himalayan region. The state is characterised by its extensive river valleys, lush green forests, rolling hills, wetlands, grasslands, tea gardens and rich wildlife. This natural landscape of Assam is strongly influenced by the Brahmaputra and Barak river systems. Which provide water, fertile plains and diverse habitats for plants, animals and birds. This river's and its tributaries not only contribute to the agricultural economy of Assam but also add considerably to its scenic beauty and tourism potential.

The seven states of North-East India geographical area cover approximately 2,55,083 km² and also states have a combined Recorded Forest Area (RFA) of approximately 1,27,708 km². Which representing about 50.07% of their combined geographical area.

This indicates the significant importance of forests in the geographical and ecological landscape of North-East India. Among these states, Arunachal Pradesh has the largest geographical area (83,743 km²) as well as the largest Recorded Forest Area (51,540 km²). In terms of the percentage of geographical area under RFA, Manipur (78.01%) has the highest share among the seven states, followed by Arunachal Pradesh (61.55%) and Tripura (60.03%). Assam has a geographical area of 78,438 km², of which 26,836 km² (34.21%) is recorded as forest area. Assam's share of the total geographical area of these seven states, it is 30.75% and accounts for approximately 21.01% of the total Recorded Forest Area (RFA) of the seven North-Eastern states. The extensive forest resources of these states are important for biodiversity conservation, wildlife habitats, ecological stability and the development of ecotourism and sustainable tourism.

In Assam, there are **7 National Parks**, which together cover approximately 3,014.58 sq. km. These National Parks represent a major part of Assam's protected-area network and important for biodiversity conservation, wildlife protection and tourism development. The seven National Parks of Assam representing approximately 3.84% of the state's total geographical area (78,438 sq. km) and 11.23% of the state's total Recorded Forest Area (26,836 sq. km). This national parks the significant role of protected areas in conserving Assam's forest resources, biodiversity, wildlife protection, ecological stability, and sustainable tourism.

These National Parks protect diverse ecosystems such as forests, grasslands, wetlands and riverine habitats, which is providing shelter to several endangered and rare species. They are also important for the conservation of species such as the one-horned rhinoceros, Royal Bengal tiger, Asian elephant, wild water buffalo, and various migratory and resident birds. Apart from conservation, these National Parks significantly contribution to wildlife tourism and ecotourism. This tourism activities are attracting domestic and international visitors and generating income for the state. Tourism activities around these protected areas also create employment opportunities for local communities through guiding, transportation, accommodation, handicrafts, food services and other tourism-related activities. National Parks have both ecological and socio-economic importance, making them an important component of tourism development in Assam.

Scope and potential of wildlife tourism in Assam

SL.No	National Park	District	Area (km ²)	Major Range	Major Animals	Major Birds
1	Kaziranga National Park	Golaghat, Nagaon, Sonitpur, Biswanath	889.51	Central (Kohora), Western (Bagori), Eastern (Agoratoli), Burapahar (Ghorakati), Northern (Biswanath)	One-horned Rhino, Tiger, Elephant, Wild Buffalo, Swamp Deer, Hog Deer	Great Hornbill, Bengal Florican, Adjutant Stork, Pelicans, Egrets
2	Manas National Park	Baksa, Chirang	500	Bansbari, Bhuyanpara, Panbari, Kuklung	Tiger, Elephant, Rhino, Golden Langur, Wild Buffalo, Pygmy Hog, Hispid Hare	Bengal Florican, White-bellied Heron, Great Hornbill, King Vulture, Pelicans, Storks
3	Raimona National Park	Kokrajhar	422	Raimona / forest ranges of Raimona landscape	Golden Langur, Elephant, Tiger, Leopard, Gaur, Wild Buffalo	Great Hornbill, Wreathed Hornbill, Rufous-necked Hornbill, White-cheeked Partridge, Hill Peacock-Pheasant
4	Dibru-Saikhowa National Park	Dibrugarh, Tinsukia	340	Guijan, Saikhowa	Feral Horse, Gangetic Dolphin, Hoolock Gibbon, Elephant, Tiger, Leopard, Wild Buffalo	White-winged Wood Duck, Greater Adjutant, Lesser Adjutant, Black-necked Stork, Great Pied Hornbill
5	Dehing Patkai National Park	Tinsukia, Dibrugarh	234.26	Soraipung, Margherita West	Hoolock Gibbon, Elephant, Tiger, Clouded Leopard, Gaur, Serow	White-winged Wood Duck, Rufous-necked Hornbill, Great Pied Hornbill, Wreathed Hornbill, Grey Peacock-Pheasant
6	Nameri National Park	Sonitpur	200	Nameri Wildlife Range (Potasali)	Elephant, Tiger, Leopard, Gaur, Wild Boar, Dhole, Clouded Leopard	White-winged Wood Duck, Rufous-necked Hornbill, Wreathed Hornbill, Great Pied Hornbill, Pallas's Fish Eagle
7	Orang National Park & Tiger Reserve	Udalguri, Sonitpur	78.81	Silbori / Orang Range	One-horned Rhino, Tiger, Elephant, Hog Deer, Wild Pig, Gangetic Dolphin	Bengal Florican, Greater Adjutant, Lesser Adjutant, Spot-billed Pelican, Brahminy Duck

Sources: Data of wildlife, Assam Forest Department.

Assam also have 18 Wildlife Sanctuaries. These 18 Wildlife Sanctuaries together cover 1,923.95 sq. km, accounting for approximately 7.17% of Assam's Recorded Forest Area of 26,836 sq. km and 2.45% of the state's total

geographical area of 78,438 sq. km. These protected areas play significant role in biodiversity conservation and provide opportunities for wildlife tourism and ecotourism in Assam.

Tourist Inflow of national parks and Overall Revenue Trends of tourism in Assam, 2019–2023

SL	Year	2019		2020		2021		2022		2023	
	Destination	Domestic Tourist	Foreign tourist	Domestic Tourist	Foreign tourist	Domestic Tourist	Foreign tourist	Domestic Tourist	Foreign tourist	Domestic Tourist	Foreign tourist
1	Kaziranga N.P	1,30,937	6,073	1,23,561	278	2,02,125	654	3,02,763	9,183	3,06,979	13,904
2	Nameri N.P	5,044	97	0	7	3,132	25	8,180	662	23,172	1,135
3	Manas N.P	18,233	98	55,272	0	26,582	24	52,978	808	52,394	1,,453
4	Dibru Saikhuwa N.P	601	4	461	0	769	1	1,404	13	1,804	16
5	Orrang N.P	992	14	0	2	1,592	81	4,080	32	4,060	39
6	Raimona N.P	0	0	0	0	0	0	2,235	10	3,485	26
7	Dihing Patkai N.P	0	0	0	0	0	0	786	71	1,156	78

Sources: Directorate of tourism. (2024). Tourism of Assam

During 2019–2023, Assam received a total of 25.126 million tourists, of which 25.061 million were domestic and 0.065 million were foreign tourists. In similarly, the seven National Parks accounted for approximately 1.370 million of which 1.335 million were domestic and 0.035 million were foreign tourist. Almost 5.45% of Assam's total tourist arrivals during 2019–2023 in these national parks. Kaziranga National Park is the principal wildlife tourism destination among the parks listed. This national park is consistently recording the highest number of visitors. Its domestic tourist arrivals increased from 0.131 million in 2019 to 0.307 million in 2023, while foreign tourists increased from 0.006 million to 0.014 million during the same period. Approximately 80.06% of the total tourist arrivals across the seven National Parks were recorded at this site during these years. Manas National Park maintained a strong position with 0.208 million domestic and foreign tourists which almost 15% of total tourist visitors in these parks during 2019-2023. while Nameri National Park showed third largest position with 0.041 million tourists which is approximately 3 % of total tourist visitors. But this park showed particularly noticeable growth in 2023.

Dibru-Saikhowa and Orang continued to attract relatively smaller numbers, suggesting scope for improved tourism infrastructure, promotion, accessibility and sustainable tourism development. The emergence of Raimona National Park and Dihing Patkai National Park in the tourism statistics from 2022 also indicates the gradual diversification of Assam's wildlife-tourism destinations.

Pobitora Wildlife Sanctuary is one of the most important wildlife and ecotourism destinations of Assam. It is located in the Morigaon district, Assam and covers an area approximately 38.8 sq. km. This is famous for its significant decent population of the greater one-horned rhinoceros. During 2019–2023, Pobitora Wildlife Sanctuary received a total of approximately 0.116 million tourists, including 0.114 domestic tourists and 0.001 foreign tourists. Tourist arrivals increased gradually from approximately 0.012 million in 2019 to 0.016 million in 2021, followed by a sharp rise to 0.041 million in 2022, which represented the highest share that is 35.39% of these years. In 2023, arrivals declined slightly to 0.032 million but still accounted for 27.79% of the five-year total.

The overall tourism revenue collection during **2019–2023** shows considerable fluctuations. The combined revenue collection for these five years amounted approximately 95.60 million, **(₹9.56 crore)**. Among the National Parks of Assam, Kaziranga National Park recorded the highest share of revenue collection in each of these years, highlighting its significant contribution to tourism revenue generation in the state.

V. CHALLENGES

Tourism pressure and pollution -are growing concerns for wildlife tourism in Assam, particularly in highly visited national parks such as Kaziranga. Assam's national parks received approximately 1.370 million of which 1.335 million were domestic and 0.035 million were foreign tourist. Kaziranga alone received consistently recording the highest number of visitors. Its domestic tourist arrivals increased from 0.131 million in 2019 to 0.307 million in 2023. This concentration of tourists can increase vehicle movement, noise, solid waste, plastic waste and pressure on sensitive wildlife habitats. The Assam Government has also issued Standard Guidelines for Single-Use Plastic, indicating the need to control plastic-related environmental impacts.

Inadequate Tourism Infrastructure: Inadequate infrastructure is a major constraint on wildlife tourism in Assam. Although the state recorded 7.041 million domestic tourist arrivals in 2023, the Assam Tourism Policy 2022 noted that adequate tourism infrastructure was still lacking. Assam had approximately 69 thousand km (surfaced road 51,726.04 + unsurfaced road 17,590.27) of roads in 2024-25, but connectivity and last-mile access to several tourism destinations remain challenges. Limited accommodation and tourist facilities in wildlife areas, such as hotels, homestay, guesthouse, resort, and lodge, and also their hygiene and cleanliness tourism problems capacity.

Habitat Loss and Poaching: Habitat loss remains a major challenge for wildlife tourism in Assam. In 2025-26, Assam had total Recorded Forest Area (26,836 sq. km). Increasing encroachment and habitat degradation lead to the loss and fragmentation of wildlife habitats. Which affects biodiversity and the natural movement of animals. At the same time, poaching and other illegal activities pose serious threats to wildlife populations. These challenges can weaken conservation efforts and adversely affect the long-term sustainability of wildlife tourism in Assam.

Floods and Natural Disasters: Floods and other natural disasters are major challenges to wildlife tourism in Assam, particularly in areas located around the Brahmaputra River and its tributaries.

According to the Assam State Disaster Management Authority (ASDMA), in 2024, all 35 districts of Assam were affected by floods, impacting about 4.296 million people and 7,794 villages. Such flooding damages tourism infrastructure, disrupt road connectivity and restrict tourists' access to national parks and wildlife destinations. It also forces wild animals to move towards safer and higher areas and increases human–wildlife interaction. Therefore, recurrent floods and other natural hazards pose a significant threat to the sustainable development of wildlife tourism in Assam.

Limited participation of local communities- remains a challenge for sustainable wildlife tourism in Assam. A study around Kaziranga National Park found that tourism benefits were unevenly distributed: local artisans received only about 4% of tourism revenue, while farmers received around 7% (Gurung, D. J., & Goswami, C. (2015)), whereas tourism-related businesses such as hotels, taxis and interpretation services captured a larger share. This indicates that many local residents have limited access to tourism income despite living near the protected area.

VI. CONCLUSION

Wildlife tourism will be developed according to the principles of sustainable tourism. Tourist and visitor numbers will regulate according to their carrying capacity of protected areas while effective waste management, eco-friendly infrastructure. Local communities will be involved tourism activities and received a fair share of tourism or economic benefits. At the same time, environmental education and responsible tourist behaviour will also be encouraged. Overall, wildlife tourism contributes to conservation, employment generation, livelihood improvement, and sustainable economic development. In Assam, its long-term tourism requires proper balance between tourism development, wildlife conservation, environmental protection, and the welfare of local communities.

REFERENCES

- [1] Directorate of tourism. (2024). Tourism of Assam, Government of Assam.
- [2] Assam Forest Department. (2025). *Data of wildlife*. Government of Assam.
- [3] Assam Forest Department. (2025). *National parks*. Government of Assam.
- [4] Assam State Disaster Management Authority. (2024). *Assam flood memorandum 2024*. Government of Assam.
- [5] Barua, P. (2023). The opportunities and challenges of ecotourism development with special reference to Assam. *International Journal of Food and Nutritional Sciences*, 12(1), 1457–1467.



International Journal of Recent Development in Engineering and Technology
Website: www.ijrdet.com (ISSN 2347-6435 (Online) Volume 15, Issue 08, August 2026)

- [6] Chakrabarty, P., Pan, S., & Mandal, R. (2019). Promoting wildlife tourism on geotourism landscape: A study in Manas and Kaziranga National Parks of Assam, India. *GeoJournal of Tourism and Geosites*, 24(1), 189–200.
- [7] Das, N. (2013). Ecotourism in wetland environment: A case study of Deepor Beel Wildlife Sanctuary (Ramsar Site) of Assam (India). *Revista Brasileira de Ecoturismo (RBEcotur)*.
- [8] Goswami, J. (2025). A study of the trend and pattern of wildlife tourism in the state of Assam, India. *Ecology, Environment & Conservation*, 31(2), 475.
- [9] Gurung, D. J., & Goswami, C. (2015). Developing linkage between wildlife tourism and handicraft for local economic development: A case study of Kaziranga National Park. In *Tourism and handicrafts: A sustainable approach* (pp. 149–158). Excel India Publishers.
- [10] Kanta, K. N. M., Kaurav, R. P. S., Allam, U. S., & Srivalli, P. (2021). Wildlife tourism: A synthesis of past, present, and future research agenda. *Enlightening Tourism. A Pathmaking Journal*, 11(2), 390–427. <https://doi.org/10.33776/et.v11i2.6451>
- [11] Higginbottom, K. (2004). Wildlife tourism: An introduction. In K. Higginbottom (Ed.), *Wildlife tourism: Impacts, management and planning* (pp. 1–14). Common Ground Publishing.
- [12] Ministry of Environment, Forest and Climate Change, Forest Survey of India. (2023). *India state of forest report 2023* (Vol. 1). Government of India.
- [13] Ministry of Tourism. (2025). *Tourism statistics and reports*. Government of India.
- [14] National Tiger Conservation Authority. (2025). *Annual plan of operation: Assam*. Government of India.
- [15] National Tiger Conservation Authority. (2025). *Tiger reserves and wildlife conservation*. Government of India.
- [16] Government of Assam. (2025–2026). *Economic survey, Assam 2025–26*. Directorate of Economics and Statistics, Government of Assam.