

Ecotourism: A Sustainable Development Perspective in India

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Abstract:

Ecotourism has recently emerged as the favoured practice for addressing a range of environmental issues. It tackles various conservation problems, promotes environmental awareness, and generates revenue for the well-being of local communities. Thus, it provides a long-awaited solution for promoting sustainable development while ensuring the maintenance of environmental integrity. India, a nation blessed with a diverse array of landscapes, exceptionally rich flora and fauna, as well as cultural and tribal diversity, offers great prospects for the development and practice of ecotourism. Despite these positive attributes, India faces tremendous environmental crisis owing to its ever increasing population pressure and unemployment. Consequently, ecotourism emerges as the need of the hour, capable of generating revenues while simultaneously promoting sustainable development. It also serves as a solution to long-awaited conflicts between various environmental issues such as habitat destruction, fragmentation, and the utilization of human resources. Under this backdrop, the present chapter focuses on the various hallmarks of ecotourism, different types of ecotourism activities, the code of conduct for eco-tourists, and the merits and demerits of ecotourism. Furthermore, the chapter delves into the current scenario of the ecotourism industry in India. Thus, this chapter aims to briefly discuss the aforementioned aspects and raise awareness to fuel the popularity of this noble practice in this great nation.

Introduction:

Ecotourism emerged as a novel idea in the 1970s, and by the 1990s, it became a popular practice as it proved to be a potential solution to the prolonged conflict between tourism and threats to the environment (Ceballos-Lascurain, 1996). As one of the fastest-growing sectors of the global tourism industry, ecotourism has the potential to serve as an environmentally, socio-culturally, and economically feasible option for promoting sustainable development in noteworthy natural ecosystems and landscapes (Dandapath et al., 2016; Santarém et al., 2019). The term "ecotourism" refers to the development of tourism in natural environments with a primary focus on various conservation elements, creating environmental educational awareness, and generating revenues for local communities (Santarém et al., 2019). Thus, promoting tourism without compromising nature and natural processes and ensuring their sustenance for future generations to address their own needs (Fennell, 2020). The range of variable natural resources and landscapes in India is almost unparalleled in the world, ranging from immaculate forests, the

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humongous Himalayas, high-altitude grasslands, arid deserts, rivers with their tributaries, lakes, numerous wetlands, mangroves, beaches, volcanoes, and corals, exhibiting tremendous endemism (Raghav et al., 2013).

Ecotourism is a form of sustainable, non-invasive, and nature-based tourism that refers to responsible travel to natural areas, with the primary motive of conserving the environment and improving the well-being of its local inhabitants (Baloch et al., 2023). In addition to this, we possess a rich collection of mega-fauna, including Tigers, Lions, leopards, Elephants, rhinos, wild buffaloes, Indian bison (gaur), ungulates, Deers, and more than 1200 species of avifaunal diversity (Ministry of Tourism, 2022). Ecotourism requires a holistic approach across the three levels of the Government hierarchy, namely Central, State, and Local Government, and involves intense engagement with the private sector, local inhabitants, and Civil Society organizations. A comprehensive and effective strategy and a long-term shared vision involving all the stakeholders together to utilize the State's Ecotourism potential and use tourism for sustainable social and economic development, generating revenues, and creating job prospects for the present and future generations (Ministry of Tourism, 2022).

Hallmarks of Eco-Tourism:

According to wise scholars, the important attributes of ecotourism are as follows (Weaver, 2008; Fennell, 2020):

Involves travel to natural destinations:

These sites are generally uncommon, rather rare, and may be inhabited or not. They are often situated in environmentally protected areas of national, international, communal, or local interest.

Minimizes impact:

Tourism is always ecologically detrimental. Ecotourism provides the scope to reduce the adverse effects of hotels, trails, and other infrastructure by utilizing locally available resources, renewable energy sources, scientific waste disposal, promoting recycling, and preserving environmentally and culturally sensitive architectures and structures.

Builds environmental awareness:

One primary aim of ecotourism is to educate tourists and inhabitants of local communities. The role of operators and managers is crucial. Tour operators should make travellers aware by providing content that educates them about the country, environment, and local inhabitants. Furthermore, travellers should be informed about the code of conduct for both themselves and the tourism industry. The ecotourism itinerary should be designed and executed in a way that helps generate awareness in local communities, students, and the entire population of the host nation.

Provides direct financial benefits for conservation:

This form of tourism can generate revenues allocated for environmental protection, research, and academics through various means (e.g., park entrance fees, tour companies, accommodations, vehicle rentals, airlines, airport taxes, and voluntary contributions).

Provides financial benefits and empowerment for local people:

A fundamental rule for maintaining protected areas and sites for conservation is to develop a sound relationship with the local inhabitants in and around such areas. This practical aspect can be addressed by designing and developing ecotourism that involves the local community, enabling them to gain revenues and receive other residential benefits (such as potable water, roads, health clinics, etc.) from the conservation area and its tourist facilities.

Respect local culture:

Apart from being cleaner, greener, and better, ecotourism is also less invasive, and the degree of exploitation is comparatively lower than typical tourism. Conventional tourism frequently creates nuisances and induces adverse effects (e.g., prostitution, black markets, and drug issues). Ecotourism, in addition to being ecologically sustainable, is culturally enriching by giving value to the beliefs and cultures of the inhabitants.

Supports human rights and democratic movements:

Ecotourism plays a significant global role in bringing peace, prosperity, freedom, and harmony to all mankind. However, such attributes are not practiced in conventional tourism. Therefore, ecotourism practices also play a huge role in instilling international peace and harmony.

Thus, developing ecotourism is a substantial task, and concerned thinkers (planners, managers, and policymakers) need to prioritize and apply these dimensions if they genuinely want to achieve the basic goal of sustainable development in tourism (Santarém et al., 2019).

Types of Ecotourism:

Ecotourists can engage in responsible tourism through various forms. Below are different types of ecotourism identified by scholars (Belonozhko et al., 2022):

Scientific Tourism:

Scientific ecotours involve tourists volunteering for diverse nature studies and actively participating in field observations. This type of tourism entails exploration for scholars and includes fieldwork for students, with the primary objective being acquiring knowledge and wisdom. Examples of scientific ecotours include the behavioural field study of birds in nature or the documentation of individual counts in wild populations in the ocean (Deb et al., 2020; Das et al., 2022).

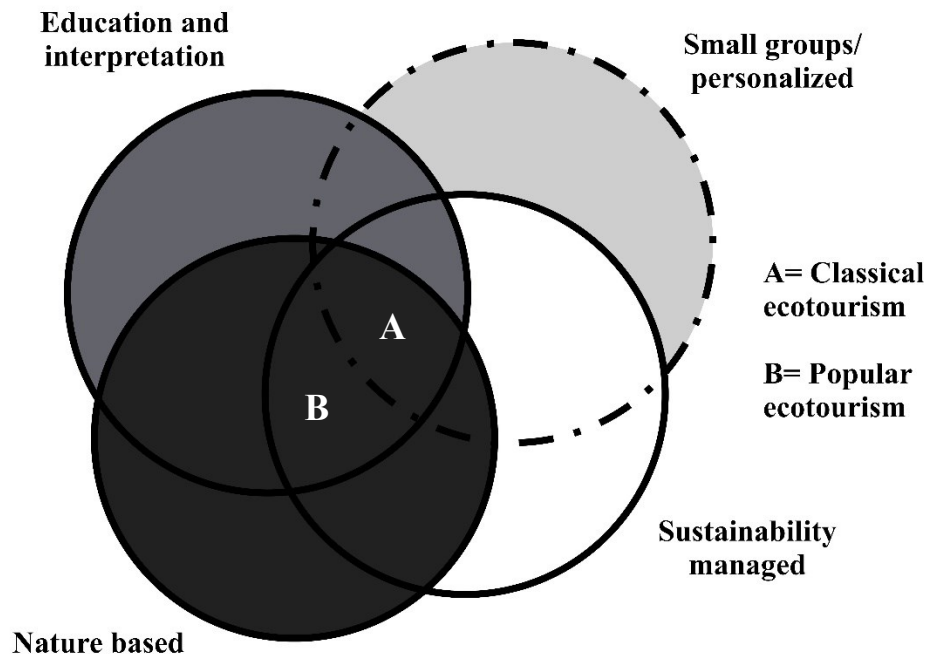


Figure 1. Dimensions of ecotourism (adapted from Fennell, 2020).

Nature History Tours:

This type of ecotourism focuses on acquiring knowledge about the environment and documenting information about local inhabitants and their culture. Nature history tours combine academic trips, popular scientific studies, and thematic excursions along specially designated ecological paths. These tours often include local excursions by academic institutions, during which mentors (teachers) raise awareness among students about nature, natural processes, and the benefits of sustainability. Such trips are widespread in Germany and have gained significant popularity.

Adventure Tourism:

Adventure tourism encompasses various tours primarily associated with different methods of movement and outdoor recreational activities. The main objective is to experience new sensations, and impressions, enhance physical endurance, and achieve novel goals. Also referred to as 'heavy ecotourism,' this type is characterized by tourists' motivation for adventure rather than a focus on the conservation of nature and its resources. Given its inclination towards sports tourism, classifying it as a type of ecological tourism introduces ambiguity. Activities include mountaineering, rock climbing, caving, trekking, and hiking.

Nature Reserves Travels:

This form of ecotourism involves touring to observe endemic and special natural objects and phenomena located in the vicinity of natural reserves. Typically, natural objects and phenomena are showcased, often accompanied by fictional representations of the lifestyle and events of native people. This type of tourism has the potential to become a popular and effective form of ecotourism. It is particularly common in Australia.

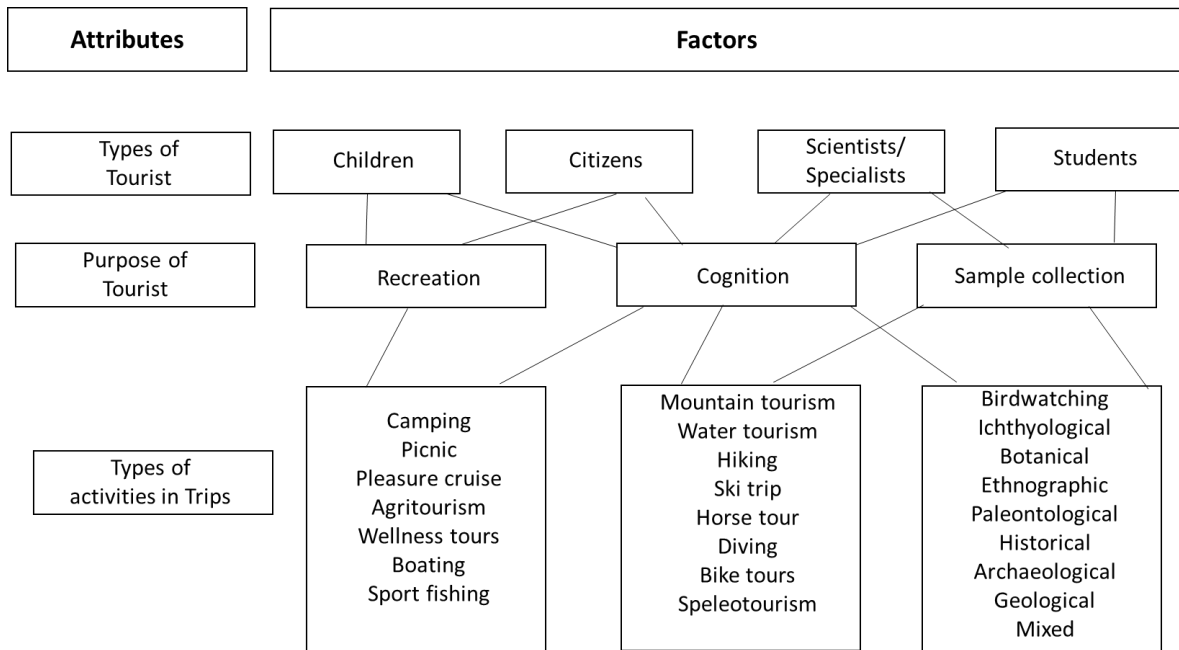


Figure 2. Different types and components of ecotourism (adapted from Belonozhko et al., 2022).

Guidelines for Ecotourists:

The Society for Responsible Tourism outlines the principles and guidelines of ecotourism, as stated by the Responsible Tourism Society of India (2020). It encourages travellers to mitigate their adverse impact before reaching sensitive destinations and cultures. Travelers should be prepared for each encounter with local cultures, as well as native flora and fauna. To minimize visitor impacts on the environment, strategies include providing literature, conducting briefings, leading by example, and implementing corrective measures.

Adequate leadership and the maintenance of small groups are essential to ensure minimal group impact on destinations. It is advised to avoid sites that are under-managed and over-visited. Managers, staff, and contract employees should be well-versed in and actively participate in all aspects of company policy to prevent negative impacts on the environment and local cultures. Access to programs that enhance communication and management skills in sensitive natural and cultural settings should be provided to these personnel. Contributing to the conservation of the visited region is emphasized. Additionally, the promotion of competitive, local employment

across all aspects of business operations is encouraged. Accommodations should be site-sensitive, avoiding wasteful use of local resources and minimizing environmental impact. These accommodations should also provide opportunities for learning about the environment and fostering sensitive interchange with local communities. The focus of ecotourism is on personally experiencing natural areas in ways that lead to greater understanding and appreciation.

Importance of Ecotourism:

The unique attribute of ecotourism is that it demonstrates concern for the environment, being nature-based and with the aim of sustainable development. Ecotourism focuses on unadulterated, pristine natural environments through the protection of natural habitats, natives, and wildlife. It fosters cultural and environmental awareness by educating tourists about nature and natural systems. Another key aspect of ecotourism is that it promotes positive interaction and builds a strong bond between visitors and native hosts. Its primary concern is to minimize the adverse impact of tourism on nature and its inhabitants. Ecotourism boosts employment and provides revenue generation for local inhabitants by scientifically and sustainably utilizing natural resources. It encourages conservation by generating revenues and demonstrating the potential for long-term financial assistance for various conservation purposes (Jalani, 2012).

Ecotourism positively influences the circular economy in the food industry by fostering sustainable practices. Local communities often benefit from ecotourism, promoting regional food production and consumption. This approach reduces environmental impact, encourages the use of local resources, and creates a symbiotic relationship between tourism and the circular food economy, contributing to long-term ecological and economic sustainability (Saha, 2023).

Demerits of Ecotourism:

While ecotourism strives to promote environmental conservation and sustainable practices, it is not without its drawbacks. Numerous adverse effects on the environment arise from ecotourism activities, underscoring the importance of carefully managing and mitigating these impacts. One significant consequence is the crushing or clearance of vegetation. As eco-tourists explore natural habitats, the trampling and disturbance of plant life can lead to the degradation of ecosystems. This alteration of the landscape can have far-reaching implications for local flora and fauna, disrupting the delicate balance of the ecosystem. Moreover, the modification of physicochemical parameters of soil and water bodies represents another ecological challenge. The influx of tourists may introduce changes to the composition of soil and water, affecting the delicate equilibrium that sustains diverse ecosystems. Such alterations can have cascading effects, impacting the organism dependent on these environments. The introduction of weeds and pathogens is yet another concern associated with ecotourism. As visitors move between regions, they may inadvertently bring non-native species or harmful microorganisms, jeopardizing the health of indigenous flora and fauna. This poses a direct threat to biodiversity and the resilience of natural ecosystems. Water pollution emerges as a consequence of human waste generated by ecotourists. The improper disposal of waste, including sewage and other pollutants, can contaminate water

sources, posing risks to aquatic life and compromising the quality of freshwater ecosystems. Simultaneously, air pollution becomes a pressing issue, driven by the emissions from generators, noise generated by machinery and vehicles, and the clamour of human voices. These pollutants have the potential to degrade air quality in pristine environments, impacting both wildlife and the overall visitor experience. Visual impacts, including the alteration of scenic landscapes, and disturbance to wildlife due to the factors mentioned above, amplify the ecological footprint of ecotourism. Additionally, the presence of food scraps and litter further contributes to the disruption of natural habitats and poses threats to wildlife through ingestion or entanglement. In conclusion, recognizing and addressing these demerits of ecotourism is crucial for ensuring the long-term sustainability of natural environments. Implementing responsible and ethical practices, along with robust conservation measures, can help strike a balance between the benefits of ecotourism and the preservation of our planet's biodiversity (John & Vijayan, 2018).

Ecotourism, despite its aim to promote environmentally responsible travel, can negatively impact elephant corridors. Increased human activity, noise, and infrastructure development associated with ecotourism can disrupt these vital pathways for elephants, leading to habitat fragmentation. This disturbance can hinder elephants' natural movement, migration, and access to essential resources, ultimately posing a threat to their survival and overall ecosystem health (Deb et al., 2022).

Ecotourism in India:

Ecotourism, as a concept, is quite interesting. Promoting ecotourism in India will lead to the conservation of wildlife and their natural habitat, which are under constant threat due to habitat degradation, fragmentation, overexploitation, and deforestation. The Indian forests are inhabited by different tribal communities, and ecotourism is an avenue to put these tribal inhabitants on the centre stage and generate funds for their well-being. It also provides ways for the development of remote areas surrounding the forests and tribal regions. Revenue generated using ecotourism practices might be a boon for the long-term economic benefit of our nation. Apart from aiding conservation initiatives, ecotourism can also shed light on many pertinent political and social issues in developing countries like India. Both locals and visitors become more aware of the adjacent nature and natural resources and can build a healthy relationship between natives and ecotourists. This mutual interaction not only enriches the ecotourists but also can lead to widespread benefits, as it can inculcate a positive mindset in the natives and boost the career development of their current and future generations (Pujar & Mishra, 2020). Ecotourism in the Sundarbans, a vast mangrove forest, has both positive and negative impacts on biodiversity. While it raises awareness and funds for conservation, improper management can lead to habitat disruption and stress on wildlife. Striking a balance is crucial to ensure sustainable ecotourism practices that protect the Sundarbans' unique and fragile ecosystem (Saha & Sarkar, 2022).

Potential of India as a hub for ecotourism sites:
• 70 percent of the Himalayas
• 7,000 km of coastline
• Among one of the three countries in the world with both hot and cold deserts
• Ranks 10th in total area under forest cover
• Ranks 6th in terms of the number of recognized UNESCO Natural Heritage sites. (National Strategy for Ecotourism, 2022)

Best ecotourism destinations in India:

Table 1: Popular ecotourism sites in India.

Serial no.	State	Name of the site
1	Andhra Pradesh	Tyda Maredumilli
2	Arunachal Pradesh	Namdhapa National Park
3	Assam	Kaziranga National Park Majuli
4	Goa	Galgibaga Beach
5	Karnataka	Coorg Nagarhole Nagarhole National Park Bandipur National Park
6	Kerala	Munnar Backwater waterways Thenmala Thodupuzha Eravikulam National Park Periyar National Park Kodaikanal
7	Ladakh	Tsomoriri Wetland Conservation Reserve
8	Madhya Pradesh	Kanha National Park
9	Meghalaya	Mawlynlong village
10	Nagaland	Jotsoma village
11	Odisha	Chilika
12	Sikkim	Khangchendzonga Biosphere Reserve
13	West Bengal	Sunderbans National Park

From the dramatic deserts of Rajasthan to the lush green forests of Cherrapunji, from the mighty Himalayas to the majestic deep blue beaches of the South, India has been a favourite ecotourism destination throughout the decade, hosting rich flora and fauna. The notable sites are (Das, 2014):

Ecotourism in India will take global and local eco-tourists to some of the cleanest villages in Asia, famous wildlife sanctuaries, and other renowned territories they have never visited before. Therefore, adopting a green approach and transitioning from being a tourist to an eco-tourism is the need of the hour.

Conclusion:

In conclusion, the exploration of ecotourism as a sustainable development perspective in India reveals a multifaceted approach to addressing environmental, social, and economic challenges. The rich biodiversity, diverse landscapes, and cultural tapestry of India create a unique canvas for the implementation and success of ecotourism. As highlighted in this review, the hallmarks of ecotourism, various types of ecotourism activities, guidelines for eco-tourists and the importance of ecotourism underscore its potential to be a transformative force. The discussion on the importance of ecotourism emphasizes its role in fostering environmental awareness, promoting positive interactions between tourists and local communities, and contributing to the conservation of natural resources. The demerits of ecotourism, though acknowledged, underscore the importance of responsible and ethical practices to mitigate adverse impacts. The focus on ecotourism in India underscores the country's potential as a hub for ecotourism sites. With its vast and varied landscapes, India stands poised to leverage ecotourism not only for wildlife conservation but also for the economic development of local communities. Identifying the best ecotourism destinations in India further substantiates the nation's allure for nature enthusiasts and advocates of sustainable tourism.

In the face of challenges such as population growth and unemployment, ecotourism emerges as a timely and promising solution. The review brings attention to the need for a comprehensive and collaborative approach involving government entities, private sectors, local communities, and civil society organizations to unlock the full potential of ecotourism in India. As we navigate the complexities of balancing tourism with environmental preservation, the principles and guidelines outlined for ecotourists become crucial. The responsible exploration of ecotourism requires a commitment to minimizing environmental impact, respecting local cultures, and actively contributing to the conservation efforts of visited regions. In essence, this review serves as a call to action, urging stakeholders and enthusiasts to recognize the transformative power of ecotourism in the Indian context. By embracing ecotourism as a sustainable development strategy, India has the opportunity to not only showcase its natural treasures but also to pave the way for a harmonious coexistence of nature, culture, and economic prosperity. Through responsible practices and strategic initiatives, ecotourism can become a driving force for a sustainable and vibrant future for India and its diverse ecosystems.

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