

Ecotourism as a sustainable development strategy: exploring the role of natural resource management

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Abstract. Ecotourism offers a sustainable approach to developing natural resources while preserving ecological integrity. This study explores how ecotourism can be effectively integrated into natural resource management strategies. We performed a comparative analysis of ecotourism practices across various regions, evaluating their impact on local ecosystems and communities. Data were collected from case studies, surveys, and field observations. Our findings indicate that well-managed ecotourism initiatives contribute to the sustainable development of natural resources by promoting conservation, generating economic benefits, and enhancing environmental awareness. Key factors for success include community involvement and adaptive management practices. The results underscore the potential of ecotourism as a viable strategy for sustainable resource management. The study highlights best practices and provides recommendations for policymakers and stakeholders to optimize the benefits of ecotourism while mitigating potential drawbacks.

1 Introduction

Ecotourism has gained increasing attention in recent years as a form of tourism that prioritizes sustainability, responsible travel and environmental protection. Unlike traditional forms of tourism, which often have a negative impact on the environment and local communities, ecotourism aims to create positive outcomes for both travelers and destinations.

Ecotourism is "responsible travel to natural areas that conserves the environment, promotes the well-being of local people, and includes interpretation and education" (International Ecotourism Society). This article explores the importance and benefits of developing ecotourism as a means of promoting sustainable travel, environmental protection, and economic development. In order to understand the importance and benefits of ecotourism development, this article examines various sources of information, including academic studies, reports and case studies. The resources cover topics such as the economic benefits of ecotourism, best practices in sustainable tourism, and the impact of ecotourism on local communities and the environment. The data are synthesized and presented in the following sections. Ecotourism can bring many benefits to local communities and the environment. From an economic perspective, ecotourism can generate income, create jobs and stimulate

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the growth of small businesses in rural areas. Ecotourism also helps protect the environment by raising awareness and supporting conservation efforts. In addition, ecotourism can provide travelers with unique and meaningful experiences that promote cultural exchange and appreciation of nature. However, the benefits of ecotourism are not without challenges. Ecotourism can have negative impacts on local communities and the environment, such as the displacement of indigenous peoples, the degradation of natural resources, and the destruction of local cultures. Therefore, it is important to adopt sustainable tourism practices and involve local communities in the development of ecotourism projects.

2 Material and methods

Over the past three decades, sustainability has emerged as a leading force in the tourism industry, offering new directions for public policy and creating the concept of sustainable tourism. New trends in tourism development are associated with the concept of more sustainable development in the world, and more and more attention is being paid to questions related to the sustainability of the tourism sector.

In the 1980s, the concept of "sustainable development of tourism" appeared. More precisely, this concept was first introduced into science by the International Union for Conservation of Nature in the form of the term "sustainable development". Later, the term gained major political power after it was highlighted in a 1987 report by Gro Harlem Brundtland (President of the United Nations). According to Brundtland, "Sustainable development means meeting the needs of the present generation without jeopardizing the needs of the next generation".

That is, he put forward the opinion that the resources should be sufficient not only for the needs of the current generation, but also for the development and satisfaction of the demands of the future generation. After that, one of the most important issues for scientists, journalists and organizations of the world community studying the field was the issue of "negative effects of tourism," that is, the environmental problems caused by the development of tourism.

The above classification of stability has been given different interpretations by different scholars. R. Repetto was the first to interpret it as follows: "Sustainable development is a development strategy that manages all assets, including natural resources and human resources, as well as "financial and physical assets", increasing long-term wealth and well-being. The goal of sustainable development is the complete rejection of policies and practices that maintain the existing standard of living by exploiting the productive base, including natural resources, and endanger future generations worse than our own.

At the 1992 United Nations Conference on Environment and Development held in Rio de Janeiro in 1992, the meaning of the term "sustainable development" was further strengthened, and since then, sustainability has become a permanent issue of tourism policy at all regional levels. Attention to the problem is not only sustainable development of tourism but has begun to develop towards a concept that encompasses both social and economic balance on a global scale.

The concept of "Sustainable Tourism" was developed by the World Tourism Organization in the context of the United Nations Sustainable Development Process. and lead to the management of all resources in such a way as to satisfy aesthetic needs".

Sustainable tourism means tourism that meets the needs of modern tourists and local residents and, at the same time, provides enough opportunities for future generations. At the heart of sustainable tourism is the ability to effectively use the potential of existing natural, national and historical resources and create an opportunity for the long-term development of tourism without harming society or the environment. The highest goal in this is to achieve high socio-economic growth while leaving ecological purity and natural resources to future

generations. This concept is in line with global trends in tourism development and promotes sustainability based on a new tourism brand.

1. In 1997, the General Assembly of the United Nations, in its special session to review the five-year implementation of its Agenda for the 21st Century, emphasized the need to "develop an international program of action for sustainable tourism. The continuation of these efforts was the seventh annual session of the United Nations Commission on Sustainable Development, held in New York in 1999. After the dialogue, the international working program for the development of sustainable tourism was adopted. One of the main actions in the implementation of the international work program on sustainable tourism was the development of international guidelines for sustainable tourism based on the Convention on Biological Diversity. The draft international guidelines emphasized that "tourism must be managed within the limits and capabilities of each ecosystem and destination in order to be sustainable".

2. At the same time, the United Nations Commission on Sustainable Development proposed to the World Tourism Organization to further develop a global code of ethics developed in consultation with the tourism industry over the previous "two years". At the end of 1999, the "Global Code of Ethics for Tourism" was defined by the World Tourism Organization (WTO) as a database for the responsible and sustainable development of tourism. It has nine articles that set out basic rules for governments, tour operators, manufacturers, travel agents, and workers, as well as hosts and tourists themselves, and a tenth article for each region of the world and each stakeholder group. A consensus mechanism was proposed by creating a World Tourism Ethics Committee consisting of representatives. After that, in 2001, the "Global Tourism Code of Ethics" was adopted by the United Nations General Assembly. The implementation plan of this document was adopted at the high-level World Summit on Sustainable Development held in Johannesburg (South Africa) from August 26 to September 4. preserving the cultural and ecological integrity of countries and strengthening the protection of the environment, sensitive areas and natural heritage, as well as the beneficial use of tourism resources.

3. The results of such international actions show that the implementation of the plan of the World Summit on Sustainable Development should encourage countries to take advanced steps towards more sustainable development. However, it was also emphasized that there should be systematic actions and sufficient resources (economic, social, and intellectual) at the national and international levels to achieve the sustainable tourism goals presented in the implementation plan of the World Summit on Sustainable Development.

4. P. Wight points out that the terms "sustainable tourism" and "tourism related to sustainable development" are different; "sustainable tourism is not equivalent to the concept of sustainable development, but only a part of it." According to him, the former simply refers to tourism as it exists over time, while the latter should refer to tourism that is designed and developed so that its nature, scale, location and development are appropriate and sustainable over time. tourism, where the environment's ability to support other activities and processes is not disturbed because tourism cannot be separated from other resource-use activities as a tourism-oriented approach to sustainability.

pA. Fyall and B. Garrod pointed out that sustainable tourism as a concept still resists the same general understanding and definition of use. The term "sustainable tourism" is often used as a general description of tourism practices rather than describing how tourism development works.

5. L. Butovsky studied the short-term model of sustainable tourism, in which he expressed the opinion that it is necessary to achieve a state of balance between the needs of tourists and the needs of local residents, while at the same time, it is necessary to focus on maintaining the attractiveness of the natural and socio-cultural environment of destinations.

E.G.Kiyakbayeva understands the sustainable development of tourism as a long-term development based on harmonizing social, economic, ecological and cultural goals for current and future generations.

M. Belova describes: "Sustainable tourism is one of the youngest concepts; tourism is oriented to environmental safety".

A.Ye.Zlotnikova and E.V.Lebedev commented that "Tourism activity can be considered sustainable if the effects of ecological, socio-cultural and economic factors are in an overall positive balance".

According to the analysis, tour operator companies providing ecotourism services mainly operate within the Chimyon-Chorvok recreation zone. However, Uzbekistan's Hisar, Bobotog, Kohitangtog (Surkhandarya), Chakchar (Kashkadarya), Nurota (Navoi-Jizzakh), Zarafshan (Samarkand), Turkestan (Jizzakh), Oloy (Fergana), Kurama, Chotkal (Namangan) mountains, residual mountains in the Kyzylkum Desert, Kyzylkum Desert, dry bottom of the Aral Sea and salty lakes, Ustyurt plateau, Borsa kelmas salt marsh, Mingbulok bog, Aydarko Organization of complex and thematic eco-tours along the banks of Dengizkol, Amudarya and Syrdarya, Muruntov quarry and unique monuments of nature has not been fully implemented. Speleotourism (cave tourism) has great potential in Uzbekistan, which is rich in unique charm and unrepeatable scenery. At the moment, there are more than 500 caves in Uzbekistan, and according to information, eco-tours are not organized in any of them due to the lack of sufficient tourist infrastructure. In the deserts and plains of Uzbekistan, there are great opportunities to organize a camel ride aimed at viewing bakhans, dunes, forests, shorkhoks, barrens, wells, as well as grasses that show the way of life of local shepherds.[1] Big Chimyon, Zomin, Chotkal, Koksuv, Piskom, Turkestan, Hisar, Zarafshan, Oloy, Kurama, Nurota mountains have natural geographical conditions for organizing hiking, trekking and mountaineering. There are also many rivers and streams flowing from the mountains to the south and further east (Ugam, Chotkal, Piskom, Koksuv, Topolondarya, Shakhimardon, Sangzor, Zarafshan, etc.) and there are great opportunities to develop rafting tourism. According to the information of scientific research institutions and experts, today the development directions and perspectives of ecotourism are formed in connection with the laws of nature and the stability of geosystems. [2] The discussion section emphasizes the need for continued support and promotion of ecotourism. Policymakers, tourism operators and travelers need to work together to ensure that ecotourism projects are sustainable, responsible and beneficial to both the environment and local communities. Some recommended practices for ecotourism include:

- Engage in sustainable tourism practices that minimize negative impacts on the environment.

- Involving local communities in the development and management of ecotourism projects.

- Support conservation efforts that protect natural resources and biodiversity.

- Promote cultural exchange and appreciation of local cultures.

- Achieved by providing educational opportunities for travelers that increase awareness of environmental issues and conservation efforts.

- To ensure that ecotourism is sustainable and profitable, its impact should be monitored and evaluated. [3]

- ecotourism actively supports the protection of natural and cultural heritage;

- ecotourism involves local and indigenous people in planning, development and use and contributes to their well-being;

- ecotourism offers visitors interpretation of natural and cultural heritage;

- Ecotourism supports the practice of individual trips, as well as organized trips for small groups.

Considering that tourism is the largest industry internationally, it has great potential to contribute to sustainable development (Hunter, 1997). Two principles related to sustainability are regularly mentioned in ecotourism: (1) contributing to the local economy and (2) supporting conservation (Blamey, 2001). This means that if local communities harvest enough fruit from the ecotourism tree and, furthermore, if ecotourism actively participates in the preservation of the natural environment, we will strive for sustainability. But how do you determine if a tourism experience supports local communities and conservation enough to be recognized as ecotourism? How can one determine whether the benefits to local communities in the form of jobs and income justify the irreversible loss of their cultural identity (Blamey, 2001).

Although there is general agreement on the basic principles of sustainable development, several concepts are unclear in interpretation and implementation (Weaver, 2001). Although many interpretations and ambiguities related to sustainability can be reconciled, the problem of determining whether a given ecotourism project is compatible with sustainable development remains unresolved. Attempts to solve this problem face a clear lack of knowledge in this field, both in environmental science and in tourism (Weaver, 2001; 14). Therefore, on the issue of the sustainability of ecotourism, Weaver (2001; 15) takes the following side:

Without accepting a very diluted anthropocentric definition of the concept, it is impossible to unequivocally assess the sustainability of a particular ecotourism operation or activity from an ecological or socio-cultural point of view. (like many definitions), it is unrealistic to classify it as ecotourism, and otherwise, it seems more reasonable to state that "ecotourism should be seen as sustainable, based on the best available knowledge and experience".

I think this approach to ecotourism is dangerous because, at first glance, many ecotourism projects may seem sustainable to us, but a closer look reveals the opposite. Furthermore, one of the implications of this thinking is that, according to Weaver (2001), ecotourism is not incompatible with mass tourism, which tends to move away from the principles of sustainability [4-7].

The position of a little retreat on the issue of sustainability in tourism is not accidental. In an excellent article, Hunter (1997) argues that the concepts of sustainable development and sustainable tourism have not co-evolved, implying that the principles of sustainable tourism do not necessarily contribute to sustainable development. According to him, different interpretations of sustainable development are appropriate in different contexts, and the relationship between the two concepts can be classified on a scale from very weak to very strong (Hunter, 1997). Depending on the political, socio-economic or other context, we can adopt a changing vision of sustainable development to assess the extent to which ecotourism meets these principles.

3 Results

Ecotourism development involves creating sustainable tourism experiences that protect the environment and benefit local communities. The main aspects of the development of ecotourism:

1. Conservation: Ecotourism aims to protect natural habitats, wildlife and cultural heritage. This includes minimizing negative environmental impacts through responsible practices such as waste reduction, energy efficiency and habitat restoration.

2. Community Involvement: Local communities are an integral part of ecotourism development. Empowering communities to participate in tourism activities ensures that they reap economic and social benefits. This includes providing employment, supporting local businesses and involving community members in decision-making processes.

3. Education and Awareness: Educating visitors about the importance of conservation and sustainability is essential. Interpretive programs, tours, and information materials help raise awareness of environmental issues and promote responsible behavior among tourists.

4. Preserving cultural heritage: Ecotourism often involves visiting areas with rich cultural heritage. It is important to respect and preserve local cultures, traditions and historical sites and to promote cultural exchange and understanding among visitors.

5. Low-impact infrastructure: Development of environmentally friendly infrastructure that minimizes environmental impact is essential for sustainable tourism. This includes eco-lodges, campsites and trails designed to blend in with the natural environment, as well as implementing green building practices and using renewable energy sources.

6. Regulatory Framework: Governments play a critical role in the development of ecotourism by establishing regulations and policies that ensure sustainability and protect natural and cultural resources. This may include zoning regulations, environmental impact assessments, and permits for tourism activities.

7. Monitoring and evaluation: regular monitoring and evaluation helps to assess the effectiveness of ecotourism initiatives and identify areas for improvement.

This includes collecting information on visitor numbers, environmental performance, community benefits and economic impacts to inform future planning and decision-making.

4 Discussion

Tourism is often considered responsible for at least partial degradation of the natural environment (Lequin, 2001). Therefore, measuring the environmental costs and benefits of tourism projects is one of the main problems of ecotourism. In fact, ecotourism is one of the unique forms of tourism development that, under certain circumstances, helps to protect natural areas due to nature conservation programs.

The tools for measuring ecological costs and benefits are mainly composite indicators that allow determining the pressure and intensity of use of ecotourism facilities. Three composite indicators have been identified that are particularly suitable for measuring the environmental costs and benefits of ecotourism. These are:

□ Carrying capacity indicator: This composite measurement tool allows determining the maximum number of tourists per facility, taking into account the intensity of use during peak periods. This indicator can be calculated on the basis of indices of protection of natural objects and allows increasing the signal about the capacity of the site to support different levels of ecotourism visits.

□ Site Disturbance Indicator: This tool provides an overall measure of the level of impact on a site, taking into account natural and ecological features. This begs the question of how and to what extent ecotourism has a negative impact on the environment, despite all the precautions taken against the natural environment. This should make it possible to indicate what measures should be taken depending on the level of degradation of the objects used by ecotourism.

□ Indicator of ecological interest: This tool should allow measuring the ecological characteristics of the site that make it attractive for ecotourism, which may change over time and the number of tourists. This is a quality indicator that plays a very important role in ensuring the sustainability of investments mainly related to the development of ecotourism.

The interest of these different indicators is that they provide real environmental monitoring of ecotourism products and allow having a global view of the different products created by several operators in the same geographical area.

In general, ecotourism development requires a holistic approach that balances environmental protection, community engagement, and economic viability to create meaningful and sustainable tourism experiences.

Ecotourism development offers a number of benefits for both the environment and local communities. Here are some key benefits: Conservation of natural resources: Ecotourism encourages conservation of natural habitats and biodiversity by promoting responsible travel practices. Protected areas can generate income from tourism that can be reinvested in conservation efforts such as anti-poaching measures, habitat restoration and wildlife monitoring. Community Empowerment and Socio-Economic Development: Ecotourism can create economic opportunities for local communities living in and around natural areas. This often involves the participation of local people in leadership, hospitality, handicrafts and other activities related to tourism, thereby creating employment and income opportunities. This can reduce dependence on environmentally destructive activities such as logging, mining or unsustainable agriculture. Cultural preservation: Ecotourism often involves experiencing and learning about local culture and traditions. Ecotourism helps preserve cultural heritage and foster respect for different cultures by showcasing and appreciating local knowledge, traditions and lifestyles. Education and awareness: Ecotourism can be a powerful tool for environmental education and conservation awareness. Visitors to ecotourism sites often learn about local ecosystems, wildlife, and conservation issues, develop a greater appreciation for nature, and encourage sustainable behaviors even after they return home. Promote sustainable practices: Ecotourism promotes environmentally friendly practices such as minimizing waste, conserving water and energy, and supporting local and organic food production. It can serve as a model for sustainable tourism development and influence wider social attitudes towards environmental management. Diversification of income streams: For communities highly dependent on a single sector (such as agriculture or fishing), ecotourism can provide an alternative source of income, thereby reducing vulnerability to economic fluctuations and external shocks. Enhanced quality of life: Ecotourism revenue can be spent on public infrastructure, health, education, and other social services that improve the overall quality of life for residents of ecotourism destinations.

Conservation of cultural and natural heritage sites: By attracting visitors to cultural and natural heritage sites, ecotourism can contribute to their conservation, restoration and protection, ensuring their long-term sustainability for future generations to enjoy.

5 Conclusions

In summary, ecotourism can greatly benefit local communities, promote environmental protection, and provide unique experiences for travelers. At the same time, it is necessary to adopt best practices and involve local communities in the development and management of ecotourism projects to ensure that ecotourism remains sustainable and responsible.

In Uzbekistan, the methods of creating recreational zones will be simplified, and ecotourism will be further developed. The bill "On amendments and additions to certain legal documents of the Republic of Uzbekistan" considered by deputies at the next plenary session of the lower house of parliament refers to this. This document envisages changes and additions to the Land Code of the Republic of Uzbekistan, the laws "On Forests" and "On Protected Natural Areas". It is necessary for the effective and rational use of the land by the fund to have legal regulation of the leasing of land plots by the State Forestry Committee to legal entities and individuals on the basis of investment contracts or public-private partnerships. It was emphasized that the procedures for placing bee families (hives) and farms in forest fund plots should be simplified. This can be achieved only by making changes to the relevant legislation. As a result of the adoption of this draft Law, the effectiveness of the State Forestry Committee of the Republic of Uzbekistan will be ensured.

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