

DEVELOPING SUSTAINABLE TOURISM THROUGH ECOTOURISM: THEORETICAL FOUNDATIONS AND PRACTICAL DIRECTIONS FOR UZBEKISTAN

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Abstract

Uzbekistan's tourism sector has expanded rapidly, with the government targeting 20 million international visitors and a doubling of tourism's share of GDP by 2030. This growth raises a strategic question: can volume-driven expansion be reconciled with the conservation of the country's natural and cultural capital? This paper examines ecotourism as a mechanism for sustainable tourism development in Uzbekistan. It integrates sustainable development theory, the triple bottom line, stakeholder theory, common-pool resource theory, the tourism area life cycle and community empowerment approaches into a four-dimensional analytical framework (ecological integrity, economic viability, community benefit and governance). Using official statistics, government decisions and recent academic studies, the paper analyses market dynamics, protected-area expansion and the 2024 ecotourism decree, and assesses policy instruments through an analytical matrix and a SWOT analysis. The findings indicate strong natural capital and political commitment, but also weaknesses in visitor management, benefit-sharing, certification and monitoring. The paper proposes six practical directions, including carrying-capacity-based management, community-based models and a composite sustainability index.

Keywords: *ecotourism, sustainable tourism, protected areas, community-based tourism, carrying capacity, Uzbekistan*

1. Introduction

Tourism is one of the world's largest service sectors, yet its environmental and social externalities, from habitat degradation to cultural commodification and uneven distribution of benefits, have prompted sustained debate about how destinations should grow. Ecotourism, understood as nature-based travel that contributes to conservation, supports the well-being of local people and includes interpretation and education, has emerged as a prominent strategy for aligning visitor demand with conservation goals (Honey, 2008; Weaver & Lawton, 2007). Its relevance extends to the Sustainable Development Goals, notably target 8.9 on sustainable tourism that creates jobs and promotes local culture, target 12.b on monitoring tourism's sustainability impacts, and the biodiversity objectives of Goal 15.

Uzbekistan is a compelling case. International arrivals grew from roughly one million in 2016 to about 6.6 million in 2023 (Bukhara State University, n.d.), and more than 10.7 million foreign visitors were recorded in the first eleven months of 2025, with tourism service exports of USD 4.4 billion (Fergana Agency, 2025). UN Tourism placed the country among the world's

fastest-growing destinations in 2025 (Uzbektourism, 2025). A late-2025 presidential decree set targets of 20 million visitors, a rise in tourism's GDP share from 3.5% to 7% and service exports above USD 6 billion by 2030 (Fergana Agency, 2025). At the same time, protected natural areas now cover about 15.7% of the national territory (Ministry of Ecology, 2026), and a January 2024 presidential decision opened protected-area buffer zones and other ecological territories to tourism clusters.

This combination of rapid growth, expanding protected areas and new investment channels creates both an opportunity and a risk. Without careful design, ecotourism can degrade the very assets it relies on. The paper therefore asks: (1) which theoretical foundations best explain the conditions for sustainable ecotourism; (2) what does the evidence say about Uzbekistan's current position; and (3) which practical directions would strengthen ecotourism's contribution to sustainability? The contribution is an integrated framework tailored to a fast-growing, early-stage destination and an evidence-based assessment of national policy against it.

2. Theoretical Foundations

2.1 Sustainable tourism and ecotourism

Sustainable tourism derives from the Brundtland formulation of development that meets present needs without compromising those of future generations (World Commission on Environment and Development, 1987). UNWTO and UNEP (2005) operationalize it as tourism that accounts fully for current and future economic, social and environmental impacts while meeting the needs of visitors, the industry, the environment and host communities. Ecotourism is a subset: it centres on natural areas, requires a demonstrable conservation contribution, delivers benefits to local people and incorporates education (Fennell, 2015; Honey, 2008). The distinction matters in policy, since nature-based tourism that lacks conservation and community components is not ecotourism, and the label can be misused for "greenwashing" (Honey, 2008).

2.2 Triple bottom line, stakeholders and the commons

Elkington's (1997) triple bottom line holds that organizations and destinations should be evaluated on economic, social and environmental performance simultaneously. Applied to ecotourism, it implies that financial returns cannot substitute for ecological integrity or community welfare. Stakeholder theory (Freeman, 1984) adds that outcomes depend on the interaction of many actors (government agencies, protected-area managers, investors, tour operators, communities and visitors), whose interests may conflict. Common-pool resource theory is especially relevant for protected areas. Hardin's (1968) argument predicts overuse of open-access resources, while Ostrom (1990) shows that communities and institutions can avoid depletion through clear boundaries, locally adapted rules, monitoring and graduated sanctions. Protected-area landscapes in Uzbekistan are therefore best understood as common-pool resources whose sustainability depends on rule design, not only on investment.

2.3 Destination life cycle and carrying capacity

Butler's (1980) tourist area life cycle describes destinations moving from exploration through involvement, development and consolidation, and then to stagnation, decline or rejuvenation. Ecotourism sites are typically early in the cycle, when visitor numbers are small

and impacts manageable, but accelerated growth can shift them quickly toward saturation. Two management tools address this risk. Carrying capacity estimates, such as Cifuentes's (1992) method, calculate physical capacity as $PCC = (A / a) \times Rf$, where A is the available area, a the area required per visitor and Rf a rotation factor, and then reduce it by correction factors for ecological and management constraints. The Limits of Acceptable Change framework (Stankey et al., 1985) instead defines acceptable resource and social conditions and monitors indicators against them, allowing adaptive management rather than a single numerical cap.

2.4 Community-based ecotourism and empowerment

Scheyvens (1999) argues that ecotourism should empower communities across economic, psychological, social and political dimensions; income alone is insufficient. Blackstock (2005) cautions that community-based tourism can become tokenistic when communities are consulted but lack real decision-making power, and when "community" is treated as homogeneous. These perspectives imply that benefit-sharing rules, local ownership options and participation mechanisms are central to ecotourism's legitimacy.

2.5 Analytical framework

Synthesizing these strands, the paper uses four dimensions: **ecological integrity** (conservation outcomes and visitor management), **economic viability** (yield, jobs, investment), **community benefit** (distribution and empowerment) and **governance** (rules, coordination, monitoring and transparency). Each is used below to assess Uzbekistan's current position.

3. Methodology

The study is a desk-based analysis of secondary sources: official statistics reported by Uzbek agencies and media, government decisions, UN Tourism rankings and peer-reviewed or conference literature on Uzbek ecotourism. Analytical tools include trend and ratio calculations, a policy-instrument assessment matrix and a SWOT analysis. Two limitations apply. First, publicly available data disaggregated by ecotourism visitors and by protected area are limited. Second, arrival figures are affected by the definition of "tourist" and by large flows from neighbouring countries, and different sources report differing growth rates for the same period, so comparisons are indicative.

4. Analysis: Ecotourism in Uzbekistan

4.1 Market dynamics

Table 1. Key indicators

Indicator	Value	Source
International arrivals, 2016 → 2023	about 1.0 → 6.6 million (CAGR about 31%, author's calculation)	Bukhara State University (n.d.)
Foreign visitors, Jan–Nov 2025	10.7 million	Fergana Agency (2025)
Share of visitors from neighbouring countries, Jan–Jul 2025	82.5%	Kun.uz (2025)

Indicator	Value	Source
Average spend per foreign tourist, Jan–Jul 2025	USD 403	Kun.uz (2025)
Tourism service exports, Jan–Nov 2025	USD 4.4 billion (about USD 411 per visitor, author's calculation)	Fergana Agency (2025)
2030 targets	20 million visitors; GDP share 7%; exports above USD 6 billion	Fergana Agency (2025)
Protected areas, share of territory	14.1% (March 2025) → 15.7% (March 2026); 27 areas	Ministry of Ecology (2025, 2026)

Three analytical observations follow. First, growth has been exceptionally fast, consistent with the early-development phase of Butler's cycle, which is when planning decisions have the greatest long-term effect. Second, visitor composition is concentrated: more than four-fifths of arrivals in early 2025 came from neighbouring countries, many for short visits (Kun.uz, 2025), which suggests that much current demand is not nature-oriented and that ecotourism's niche, international, longer-stay segments remain small. Third, the revenue target is modest relative to the volume target: at the current estimate of about USD 411 per visitor, 20 million arrivals would generate roughly USD 8.2 billion, well above the stated USD 6 billion floor. The strategic issue is therefore less about volume than about yield and distribution, which favours low-volume, high-value ecotourism products over mass flows into sensitive areas.

4.2 Natural capital and protected areas

Protected-area coverage has risen from 14.1% in March 2025 to 15.7% in March 2026, with the system growing from 24 to 27 areas and new national parks (Ovjazsoy–Moviy Tog'lar, Pskem and Fergana) covering 188.8 thousand hectares; salaries for protected-area staff are to rise by up to three times from July (Ministry of Ecology, 2026). This is considerably above neighbouring Kyrgyzstan's 7.38% coverage, where about 271,000 visitors, mostly domestic, entered protected areas in 2025 (Times of Central Asia, 2026). For Uzbekistan, high coverage offers the ecological base for ecotourism, but it also means more area to manage with limited resources. Studies of reserves such as Chatkal, Nuratau–Kyzylkum, Zaamin and Surkhan highlight infrastructure gaps, limited awareness and weak policy coordination as principal constraints (Ismoilova, 2025), and regional analyses identify ecotourism clusters, for example in Jizzakh (Nurata–Aydarkul, Zaamin–Bakhmal and others), as a basis for organized development (Umarova et al., 2024; Umsida, 2024).

4.3 Policy and institutional framework

The January 2024 presidential decision on accelerated ecotourism development provides for leasing land in buffer zones, national parks, forestry areas, mountain and desert zones and water-protection belts for tourism clusters, for terms of up to ten years through the electronic

E-auksion platform. It requires lightweight, environmentally friendly construction, eco-region development programs and commitments by tenants to maintain ecological stability and use renewable energy and modern technology, and it launches a "Travel to Nature" digital platform with maps, bookings and trail information (Anhor.uz, 2024). Water reservoirs have also been opened to ecotourism operators through Cabinet resolution No. 978 (Anhor.uz, n.d.). Table 2 assesses key instruments against the four framework dimensions.

Table 2. Policy-instrument assessment (author's qualitative judgment based on sources reviewed)

Instrument	Ecological integrity	Economic viability	Community benefit	Governance
2024 ecotourism decision (clusters, leases)	Partial: eco-construction, programs, tenant obligations	Strong: investment, e-auction	Not evident: no explicit benefit-sharing rules in sources	Partial: transparent leasing; monitoring details not evident
Protected-area expansion	Strong	Indirect	Indirect	Partial: staffing and funding upgrades
"Travel to Nature" platform	Neutral	Strong: market access	Partial	Partial
2030 volume and GDP targets	Risk if unmanaged	Strong	Not specified	Not specified

The matrix shows that economic and investment instruments are better developed than those addressing community benefit and visitor-impact monitoring, which are the dimensions most associated with ecotourism's conservation and equity claims in the literature (Honey, 2008; Scheyvens, 1999).

4.4 SWOT analysis

Table 3. SWOT of ecotourism in Uzbekistan

Strengths	Weaknesses
Large protected-area estate (15.7%) and diverse landscapes (mountains, deserts, lakes)	Uneven infrastructure and limited awareness at protected sites
Strong political commitment and rapid tourism growth	Weak coordination between ecology, tourism and local authorities
Digital leasing and promotion tools	Limited visitor-impact monitoring and public data

Strengths	Weaknesses
Opportunities	Threats
Rising international interest in eco and gastronomic tourism	Volume targets leading to overuse of sensitive areas
High-yield niche segments (trekking, birdwatching, desert and Aral heritage)	Greenwashing and weak certification
Cluster-based development and public-private partnerships	Benefits captured by investors rather than local communities

5. Practical Directions

Based on the framework and the analysis, six directions are proposed.

Site-level visitor management. Define carrying capacity and Limits of Acceptable Change for priority sites, with zoning, seasonal rules and booking-based access integrated into the "Travel to Nature" platform. Use the PCC formula and indicator monitoring as complementary tools.

Benefit-sharing and community participation. Require lease holders to meet local employment and procurement commitments, support community homestays and guiding cooperatives, and allocate a fixed share of entrance and concession fees to adjacent communities, in line with empowerment principles (Scheyvens, 1999).

Standards and certification. Introduce eco-certification for accommodation and operators in tourism clusters, and embed measurable environmental covenants, with termination clauses, in lease contracts.

Yield-oriented marketing. Shift promotion toward international, longer-stay ecotourism segments and extend seasons, so that growth in revenue per visitor, not only arrivals, becomes the main performance indicator.

Monitoring and a sustainability index. Develop a composite index $ESI = w_1 \cdot E + w_2 \cdot C + w_3 \cdot B + w_4 \cdot G$, where E, C, B and G are normalized indicators for ecological integrity, economic viability, community benefit and governance, and publish site-level data openly. Indicators could include visitor numbers against capacity, habitat condition, local share of revenue and compliance rates.

Institutional coordination and capacity. Create a joint platform of the ecology and tourism authorities and local governments, retain part of protected-area revenues for management, and expand training for guides and park staff (the national register counted 4,345 licensed guides in 2025, with 375 trained that year; Fergana Agency, 2025).

6. Conclusion

Uzbekistan combines extensive protected areas, supportive policy and rapid tourism growth, which gives ecotourism a realistic chance to anchor a more sustainable tourism model. The analysis indicates, however, that current instruments emphasize investment and market access more than visitor-impact management, community benefit and monitoring. Theoretically, commons governance, life-cycle dynamics and empowerment perspectives all suggest that the next policy phase should prioritize rules, data and benefit distribution. If these

elements are strengthened, ecotourism can contribute to conservation, regional development and tourism yield simultaneously. Future research should use site-level visitor and ecological data, community surveys and, where possible, willingness-to-pay studies to test the framework empirically.

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