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FORMATION OF GREEN TOURISM CLUSTERS IN UZBEKISTAN: INVESTMENT OPPORTUNITIES AND INNOVATIVE MANAGEMENT MODELS

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Abstract

This article examines the strategic role of green tourism cluster formation in the Republic of Uzbekistan as a multifunctional mechanism for stimulating investment, ensuring sustainable development, and enhancing the competitiveness of the national tourism product in the international arena. Drawing on the theoretical foundations of the cluster approach, the study analyses the specifics of adapting this model to Uzbekistan's conditions with emphasis on environmental standards and green economy principles. Particular attention is given to investment opportunities arising from state initiatives in new tourism types (industrial, scientific, geological, and others) and large-scale infrastructure projects. An innovative cluster management model based on the adapted ICM333 methodology is presented, alongside a phased implementation plan encompassing public–private partnership mechanisms, foreign investment instruments, digitalisation solutions, and a sustainability monitoring system.

Keywords

green tourism cluster, investment attractiveness, sustainable tourism, cluster development model, innovative tourism management, public–private partnership, environmental standards, tourism infrastructure.

Introduction

Uzbekistan possesses considerable potential for tourism development owing to its rich cultural-historical heritage, diverse natural resources, and growing international visitor interest. Over the past decade, the government has implemented a comprehensive package of liberal reforms—including a simplified visa regime for nationals of more than 90 countries, modernisation of airport infrastructure, and incentives for private investment in the hospitality sector. These efforts have yielded measurable results: according to the State Committee of the Republic of Uzbekistan for Tourism, the total number of foreign tourist arrivals for January–September 2025 reached 8,561.9 thousand trips, representing an increase of 2,829.2 thousand trips compared to the corresponding period of 2024. Tourism's share of GDP in the first half of 2025 amounted to 4.3% (30.2 billion soums), with further growth to 7% projected by year-end.

A pivotal policy development occurred on 1 January 2025, when a government resolution entered into force officially launching five new categories of specialised tourism: industrial, geological, scientific, military, and administrative. This initiative directly correlates with the objectives of cluster development. Against this backdrop, the formation of green tourism

clusters—combining economic efficiency, environmental responsibility, and innovative governance—emerges as a strategically significant direction.

The purpose of this article is to analyse investment opportunities and innovative management models applicable to the formation of green tourism clusters in Uzbekistan, with reference to international best practices and contemporary sustainable development requirements.

Theoretical Foundations of Tourism Cluster Formation

The concept of clusters as geographically localised systems of interrelated companies, specialised suppliers, service providers, and institutions in a given domain was systematically developed by Michael Porter (1998), who defined a cluster as a "geographic concentration of interconnected companies, specialised suppliers, service providers, firms in related industries, and associated institutions that compete but also cooperate." Applied to tourism, this denotes the creation of a spatially organised ecosystem integrating accommodation providers, transport companies, tour operators, attractions, cultural institutions, educational and research centres, government bodies, and local communities.

Cluster theory, tracing its intellectual lineage to Alfred Marshall's concept of industrial districts, identifies three interconnected synergistic mechanisms: (1) productivity gains through geographic proximity to specialised suppliers, concentration of skilled labour, and facilitated access to knowledge and technology; (2) innovation stimulated by intensive knowledge exchange, rapid feedback from value-chain participants, and competitive pressure through coopetition; and (3) the formation of new businesses facilitated by lower market-entry barriers, easier identification of niche opportunities, and access to resources and competencies. A tourism cluster is thus distinguished from a simple network or industry association by its more complex and open interaction architecture, characterised by social capital, trust, and a collective vision for territorial development (Danko & Dovhal, 2013).

Table 1. Comparative Characteristics: Tourism Network vs. Tourism Cluster

Criterion	Tourism Network (Association)	Tourism Cluster
Basis of Formation	Contractual agreement, shared business goals	Social values, trust, collective territorial vision
Membership	Limited, often selective	Open, encouraging entry of new participants
Nature of Interaction	Predominantly cooperative	Coopetition (cooperation + competition)
Primary Economic Effect	Reduction of transaction costs; access to shared services	Creation of new business opportunities; attraction of investment, talent, and unique offerings
Regional	Optimization of existing	Enhanced investment

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Criterion	Tourism Network (Association)	Tourism Cluster
Outcome	players	attractiveness and innovation potential of the territory

Source: Compiled by the authors based on Danko & Dovhal (2013).

Applied to the tourism sector, the cluster approach overcomes fragmentation by creating a coherent, high-quality tourism product. The evolution of theoretical perspectives has led to the delineation of thematic (specialised) clusters formed at the intersection of diverse industries—a model demonstrated by the California Wine Cluster, the Tropical North Queensland cluster, and the South African tourism cluster—as the most effective configuration, enabling precise market-segment targeting and the creation of distinctive, memorable offerings.

International Experience and Best Practices

Analysis of international cases reveals several models of successful tourism clustering. The California Wine Cluster in Napa Valley, as analysed by Porter & Bond (1999), is founded on strategic cooperation among wine producers who jointly promoted the region as a brand, supported by a dense institutional network encompassing a research university, professional associations, and complementary businesses. An analogous principle of sectoral convergence is evident in the Tuscany cluster in Italy, where the symbiosis of viticulture, agritourism, and cultural heritage has produced a world-class tourism product.

The transformation of industrial regions into tourism centres within the UNESCO Creative Economy framework (UNESCO, 2013) is illustrated by the Ruhr region in Germany and Glasgow in the United Kingdom, which demonstrate how former industrial sites can be reinterpreted as cultural and recreational clusters. The Tropical North Queensland cluster in Australia demonstrates how trust-based cooperation among geographically proximate stakeholders catalyses rapid development of niche tourism segments—notably diving and ecotourism—with transport infrastructure (in this case, an international airport) serving as a critical enabling factor.

A synthesis of international experience reveals a universal formula: successful cluster formation occurs at the intersection of strategic coopetition (often among direct competitors), dense institutional support (research, education, associations), a unique resource core (natural, cultural, or industrial), and well-developed connective infrastructure. Neglect of any of these elements results in the formation of an uncompetitive agglomeration rather than a dynamic, self-reinforcing innovation ecosystem.

Current State and Potential of Tourism in Uzbekistan

Uzbekistan's tourism sector has demonstrated sustained positive dynamics. The traditional cultural-cognitive routes along the 'Golden Ring' cities (Samarkand, Bukhara, Khiva)—all UNESCO World Heritage Sites—constitute the competitive core of existing offerings. By the end of 2024, investment agreements totalling over USD 2.3 billion for infrastructure development were concluded at the Global Tourism Investment Forum, including in prospective cluster zones such as Shakhrisabz.

The potential for green tourism cluster formation rests on three key components. First, natural-geographic diversity: from the high-mountain ecosystems of the Western Tien Shan and Nuratau ranges to the unique desert landscapes of the Ustyurt Plateau and the receding Aral Sea, providing the foundation for ecological, adventure, and scientific tourism. Second, rich cultural-historical heritage: UNESCO World Heritage Sites and intangible heritage (crafts, music, festivals) constitute the competitive nucleus for cultural-cognitive clusters. Third, resources for non-conventional tourism forms: the presence of mining and processing enterprises (e.g., Navoi Mining and Metallurgical Combine) opens pathways for industrial tourism, while the network of scientific institutes and observatories enables scientific-educational tourism.

Systemic challenges nevertheless exist: infrastructure limitations beyond the main tourist cities, seasonality of visitor flows, a deficit of qualified personnel meeting international green service standards, and fragmented interaction between the tourism industry, scientific, and environmental organisations. Overcoming these challenges requires a targeted, cluster-based approach.

A Model for Green Tourism Cluster Formation in Uzbekistan

The proposed innovative model is iterative in nature, built on the principles of sustainability, inclusivity, and digitalisation, following the adapted ICM333 methodology (Gumilar, 2010), which treats the cluster as an evolutionary system. The model is implemented across five sequential yet interrelated stages.

Stage 1: Identification and Initiation

The initial step is the selection of a geographic location and thematic specialisation based on a competitive asset audit. For Uzbekistan, candidate typologies include: a cultural-ecological cluster anchored in a UNESCO World Heritage site (e.g., 'Shakhrisabz–Kitab Geopark'); an agro-ecological cluster in the Fergana Valley integrating organic agriculture, craft production (silk, ceramics), and ethnographic tourism based on circular economy principles; or an industrial heritage and creative economy cluster based on revitalised industrial sites, following the Ruhr model. The key action at this stage is the establishment of an Initiative Working Group (IWG) comprising representatives of regional government, major local tour operators, the academic community, and civil society organisations.

Stage 2: Strategic Planning and Institutionalisation

At this stage, the preliminary vision is formalised into a Green Cluster Development Strategy incorporating: (a) an Ecological Charter establishing binding environmental standards (water consumption, waste management, energy efficiency, biodiversity conservation); (b) an organisational-legal model—a Cluster Association/Consortium in the form of a non-profit partnership responsible for coordination, brand management, and standards compliance; and (c) an Investment Plan delineating state-funded projects (infrastructure modernisation), PPP-based projects (eco-hotels, visitor centres), and private capital projects (guesthouses, restaurants, services). A Cluster Knowledge Centre, established at a regional university, is responsible for environmental monitoring, personnel training, and innovation adoption.

Stage 3: Infrastructure Implementation and Pilot Projects

This stage involves parallel development of 'hard' and 'soft' infrastructure: green construction employing LEED/BREEAM standards; clean logistics (electric buses, cycling infrastructure, charging stations); smart resource management systems (water, energy); and a cluster digital platform serving as a unified portal for promotion, eco-route booking, visitor flow monitoring, and feedback collection. Pilot tourism products—such as standardised 'green' packages—are launched to serve as market validation instruments.

Stages 4–5: Marketing, Branding, Scaling, and Adaptive Governance

A recognisable green cluster brand is established under which all services are promoted, positioning the destination on international specialised platforms in partnership with the Global Sustainable Tourism Council (GSTC). As pilot projects demonstrate success, the model is scaled through the engagement of new enterprises and geographic expansion. A three-component KPI system continuously evaluates ecological performance (carbon footprint reduction), economic performance (growth of added value for local communities), and social performance (resident satisfaction). This monitoring underpins an adaptive management cycle, enabling the cluster to function as a self-learning system generating long-term regional competitiveness.

Investment Opportunities Generated by Green Cluster Formation

Green tourism cluster formation creates a qualitatively new investment environment, transforming dispersed projects into a unified, strategically calibrated ecosystem. Key investment streams are structured across three complementary layers.

The first layer comprises infrastructure investments by the state in partnership with international financial institutions (World Bank, ADB, IsDB): construction of roads, engineering networks meeting green building standards, and water treatment and waste management facilities, thereby reducing the capital intensity and risk profile of subsequent private investment.

The second layer encompasses direct private and institutional investment in specific hospitality and digital infrastructure assets: energy-efficient eco-hotels and lodges integrated into the landscape; gastronomic clusters leveraging local organic produce; specialised visitor attractions (eco-trails, visitor centres, open-air museums); smart destination management platforms; AR/VR heritage guides; and real-time environmental monitoring systems.

The third layer involves public–private partnership mechanisms and ESG-oriented capital. Long-term concession agreements are applicable to major infrastructure objects. The cluster's clear environmental standards and monitoring system render it highly attractive to the growing pool of ESG investors. Uzbekistan can position green clusters as pilot zones for green bond issuance, with proceeds directed toward verifiable ecological projects. The cluster additionally generates synergies for investment in supporting industries: organic agriculture supply chains, artisanal cooperative development, and the professional education sector for sustainable tourism management.

The investment landscape generated by a green cluster is characterised by a transition from point investments in isolated hotel assets to comprehensive financing of a sustainable territorial ecosystem—diversifying risk, generating multiplicative economic effects through value-chain development, and attracting a new class of responsible investors.

Conclusion

The formation of green tourism clusters in Uzbekistan represents a strategic imperative for transitioning from extensive growth to a qualitative, sustainable development model. Theoretical analysis and international practice confirm that the cluster model—founded on synergy and coopetition—is the most effective instrument for enhancing the competitiveness of tourism destinations. The Uzbekistan-adapted model, integrating the ICM333 methodology stages, enables a systemic approach to creating territorial ecosystems where economic efficiency is combined with environmental responsibility.

The key conditions for success are: the institutionalisation of multi-stakeholder interaction through a governing association and a binding ecological charter; the development of green and digital infrastructure as the technological backbone of the cluster; and a three-component KPI monitoring system assessing ecological, economic, and social outcomes. Implementation of this model will allow Uzbekistan not only to diversify its tourism offering and reduce seasonality, but also to position itself in the global market as a centre of responsible tourism—thus fulfilling the long-term national goals of sustainable development.

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