

конкурентоспособности. Поэтому технологические инновации следует признать приоритетом в государственной политике и деятельности частного сектора.

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GREEN URBANISM AND ECO-TOURISM: THE FUTURE OF THE TOURISM INDUSTRY

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Annotation: Today, the ideas of environmental protection, sustainable development and green economy are increasingly gaining momentum globally. The urban planning and tourism sectors are also joining this process and making their own contributions to solving environmental problems. Green approaches in urban planning and the development of eco-tourism not only help protect the environment, but also bring economic and social benefits. This article discusses the interrelationship of green urban planning and eco-tourism, their future and development prospects.

Keywords: green urban planning, tourism, eco-tourism, green infrastructure , natural resources, economic development.

Introduction: The term green urban planning refers to ensuring environmental sustainability in cities and urbanization processes. In this approach, issues such as environmental protection, increasing energy efficiency, saving natural resources and increasing green spaces are important. The main goal of green urban planning is to transform cities into environmentally friendly, energy efficient and livable places. This, in turn, not only improves the quality of life of city residents, but also creates great opportunities for the tourism industry. Green approaches in urban planning, such as the use of solar energy, the use of energy-saving building materials, the

introduction of water conservation systems and the improvement of transport infrastructure, play an important role in the development of eco-tourism. Green cities not only create comfortable living conditions for residents, but also make tourism attractive. Natural landscapes, ecotourism services and environmentally friendly infrastructure become the main factors in attracting tourism[1].

Main part: The basic principles of green urban planning include environmental, social, and economic aspects. By properly applying these principles, cities can be developed sustainably.

Improving energy efficiency is one of the most important principles in green urban planning. Building green buildings, harnessing solar energy, using energy-efficient building materials, and transitioning cities to electric transportation systems can help implement this principle. In this way, cities can reduce their carbon footprint and reduce the environmental impact of energy consumption.

Green urban planning involves preserving natural landscapes, forests and parks, and filling urban areas with green spaces. Green spaces not only contribute to environmental cleanliness, but also help improve public health, stabilize the social environment and develop tourism. Gardens, parks and natural monuments are vital infrastructure for cities[2].

Cities, especially large and densely populated areas, require efficient use of water resources. Green urban planning involves measures such as implementing water conservation systems, recycling rainwater and waste, and providing cities with water-saving technologies. This protects water resources and prevents damage to the environment.

Transport systems are essential for cities. Green urban planning focuses on developing eco-friendly transport systems—such as bike lanes, electric vehicles, and sustainable public transport systems within cities—to reduce carbon emissions. This not only protects the environment but also improves the quality of life for city residents[3].

Sustainable agriculture and food supply

Cities can become not only economic centers, but also major agricultural and food supply chains. Green urban planning includes adopting environmentally friendly agricultural practices, promoting organic and local products, and developing urban farmers' markets and green agricultural systems. This not only ensures environmental sustainability, but also develops local economies.

Urban planning and ecotourism. Green urban planning and ecotourism are two mutually reinforcing areas that develop together. In urban planning, it is necessary to use green infrastructure and resource-saving technologies to solve environmental problems and ensure sustainable development. At the same time, ecotourism, in turn, includes green approaches to tourism management and the proper allocation of resources. The growth of ecotourism plays an important role in finding ways to achieve sustainable development for cities. For example, measures such as building green buildings, introducing energy-efficient systems, providing the city with sustainable methods of transportation, and creating eco-friendly tourism services can be introduced to ensure the sustainability of tourism. These methods not only improve environmental conditions, but also contribute to the sustainable development of tourism[4].

Ensuring environmental sustainability and developing green infrastructure in the process of urban development will be the impetus for the successful development of eco-tourism. Principles such as building green cities, preserving natural landscapes, introducing ecological transport systems and energy efficiency will not only improve the living conditions of cities, but also develop tourism.

Green Infrastructure and Natural Areas. The success of ecotourism often depends on the availability of natural landscapes and green spaces. The preservation and development of green spaces, gardens, parks, and natural monuments in urban planning helps to stimulate tourism. Tourists interested in ecotourism want to interact with nature, so green cities are convenient and attractive to them[4].

Sustainable Transport Systems. Sustainable transport systems between cities and regions also contribute to the development of eco-tourism. The development of eco-transport in urban planning, such as bicycle paths, electric transport systems and public transport networks, facilitates the movement of tourists in the tourism sector. This plays an important role in the development of eco-tourism, as tourists and tourists seek to explore cities in a more environmentally friendly and convenient way.

Sustainable construction practices in green urban planning, such as energy-efficient buildings and the efficient use of natural resources, have an additional positive impact on ecotourism. By using sustainable building materials and energy-efficient technologies, cities can provide high-quality and environmentally friendly services not only to their residents but also to tourists. This increases the environmental awareness of tourists and makes ecotourism more attractive.

The future of green urbanism and ecotourism lies in supporting each other. Applying ecological approaches to urban planning and developing sustainable tourism development strategies will not only help preserve nature, but will also be economically beneficial. Green tourism destinations, such as living in eco-friendly homes, energy-efficient cities with rich natural landscapes, will stimulate the development of new forms of tourism. Technological innovations, such as the use of solar energy, electric transport systems and sustainable agricultural practices, will also create new opportunities in the field of cities and tourism. All this will not only contribute to the growth of green cities and ecotourism, but also to the protection of the environment around the world[6].

The impact of ecotourism on urban development and the economic and environmental benefits it provides are important for cities. The development of ecotourism creates new opportunities not only for the tourism sector, but also for urban development, as these processes require a lot of resources and infrastructure.

Economic Development and the development of ecotourism provide a good opportunity to support the local economy and create new jobs. Cities expect that tourism will generate new jobs, services, hotels and restaurants. This, in turn, will ensure economic stability and stimulate the development of new infrastructure in urban development[7].

Through ecotourism, tourists get acquainted with local culture and traditions, which encourages the use of approaches aimed at preserving cultural heritage in urban planning. Cities pay attention to the development of ecotourism types that include cultural and historical monuments, traditional crafts and other cultural elements. This will be important in the preservation and development of cultural heritage.

Ecotourism requires an approach that focuses on conserving and sustainably managing natural resources. This requires urban planning to use natural areas and resources in more efficient and environmentally friendly ways. Through ecotourism, tourists help to preserve natural landscapes and ecological areas, which strengthens the role of cities in environmental conservation and effective management of natural resources[8].

Sustainable cooperation is essential for the successful development of urban planning and ecotourism. The development of ecotourism can be stimulated by taking into account ecological principles in urban planning, creating environmentally friendly infrastructure, improving energy efficiency and increasing green spaces. Cities need to update their infrastructure based on new needs and requirements to support ecotourism.

In addition, it is important to establish effective cooperation between governments, urban planners, tourism professionals and local residents. To develop sustainable tourism, it is necessary to develop strategies aimed at modernizing tourism infrastructure, providing environmentally friendly services, using local resources efficiently and promoting eco-tourism.

Uzbekistan's urban planning policy and infrastructure have been developing rapidly in recent years. However, the issue of green urban development, that is, the creation of environmentally sustainable cities, has now become a special focus in many large cities and

districts. New initiatives aimed at strengthening cities and their environment, preserving nature and increasing energy efficiency are gradually developing in Uzbekistan's cities[9].

One of the main directions of green urban development in Uzbekistan is the provision of green spaces in cities. In large cities such as Tashkent, Samarkand, Bukhara and other regions, many projects are being implemented to increase green spaces and parks. In Tashkent, many new parks and avenues have been created as part of the "Green Tashkent" program. These initiatives are important for improving the health of the population and ensuring environmental sustainability.

The concept of smart cities is also developing in green urban planning. In this approach, the management of cities using digital technologies, the effective management of energy and resources, and the creation of smart systems of urban infrastructure play an important role. In Uzbekistan, special attention is being paid to the implementation of the "smart city" system in Tashkent. This system is aimed at increasing the energy efficiency of the city and reducing its ecological footprint, while creating a comfortable living environment for its residents.

Energy efficiency is a key issue in Uzbekistan's cities, with sustainable construction and the use of environmentally friendly materials on the rise. Green building and energy efficiency requirements are being implemented in major cities and new large buildings. For example, many new buildings in Tashkent are incorporating energy-saving technologies and solar energy systems.

Uzbekistan has many historical and natural resources, which create great opportunities for the development of eco-tourism. The development of green urban planning helps to support the ecological aspects of tourism. Initiatives aimed at the careful use of natural resources and the development of eco-tourism are expanding in Uzbekistan. This is especially important for ancient cities such as Samarkand, Bukhara, Khiva and their natural areas.

While Uzbekistan has made some positive steps towards green urban development, there is still a lot of room for improvement. Initiatives in areas such as green spaces, energy efficiency, smart cities, and eco-tourism represent major strategies for Uzbekistan's sustainable development and environmental protection. However, technological capabilities, public awareness, and private sector participation can help accelerate this process. Green urban development will play a key role in ensuring environmental and social sustainability in Uzbekistan[10].

Conclusion: Green urbanism and ecotourism serve to create sustainable and mutually beneficial systems in the future by harmonizing environmental protection and economic development. Cities and the tourism sector should strive to work together to combine environmental and economic benefits. The development of ecotourism not only allows for the conservation of natural resources, but also allows for the creation of new approaches to urban planning. The cooperation between these two sectors plays an important role in achieving the global sustainable development goals. Green urbanism is gaining ground as a key approach to building sustainable cities. By applying principles such as conserving natural resources, protecting the environment, increasing energy efficiency, and expanding green spaces, cities not only achieve ecological cleanliness, but also create improved living conditions for residents. The combination of green cities and ecotourism will allow for the creation of more sustainable and developed cities in the future.

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**O'ZBEKISTONNING SHAHARSOZLIK RIVOJLANISHI VA EKOLOGIK TA'SIRI:
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Annotatsiya: Ushbu maqola shaharsozlik va ekologik muammolarni hisob-kitoblar orqali tahlil qilishga bag'ishlangan. Maqolada shaharsozlikning yashil hududlarga ta'siri, CO₂ chiqarilishi, transportning havoni ifloslantirishi, chiqindilarni boshqarish va suv resurslarining ifloslanishi kabi masalalar matematik modellar yordamida baholangan. Shuningdek, shaharsozlikning ekologik ta'sirini kamaytirish bo'yicha tavsiya etilgan chora-tadbirlar, yashil infratuzilma va barqaror rivojlanish strategiyalari keltirilgan. Ushbu tahlillar shaharsozlik siyosatini ilmiy asosda rejalashtirishga yordam beradi.

Kalit so'zlar: shaharsozlik, ekologiya, CO₂, transport, chiqindilar, barqaror rivojlanish.

Kirish: O'zbekistonning shaharsozlik rivojlanishi va demografik jarayonlari 2025 yilga kelib sezilarli o'zgarishlarni ko'rsatmoqda. 2025 yil 1 yanvar holatiga ko'ra, O'zbekistonning doimiy aholisi 37,5 million kishiga yetdi, bu esa urbanizatsiya jarayonini kuchaytiradi. Aholining 51 foizi shaharlarda yashaydi, bu esa shaharlarning doimiy ravishda o'sishini va yangi iqtisodiy imkoniyatlarning paydo bo'lishini ko'rsatadi. Biroq, shaharlarning tez rivojlanishi bilan birga ekologik muammolar, ayniqsa yashil hududlarning kamayishi, CO₂ chiqindilari, chiqindilarni boshqarish va suv resurslari bilan bog'liq jiddiy muammolar ham yuzaga kelmoqda. Shaharlar rivojlanishi bilan tabiiy resurslarning kamayishi va ularning ifloslanishi hamda shahar aholisi sonining ortishi ekologik barqarorlikni ta'minlashda katta chaqiriq bo'lib qolmoqda [1,2].

Ushbu maqolada, shaharsozlikning ekologik ta'sirini baholash uchun matematik modellar yordamida tahlil qilish usullari ko'rib chiqiladi. Yashil hududlarning kamayishi, CO₂ chiqarilishi, chiqindilarni boshqarish va suv resurslarining iste'moli kabi ekologik masalalar, ilmiy asoslangan hisob-kitoblar yordamida qanday baholanishi mumkinligi tushuntiriladi. Bu tahlillar orqali shaharsozlik siyosatining ekologik oqibatlarini oldindan aniqlash va muammolarni hal etishga yo'naltirilgan tavsiyalar ishlab chiqish maqsad qilingan. Maqola, shaharlarni barqaror rivojlantirish uchun zarur bo'lgan choralarni ilmiy asosda ko'rsatadi.

Asosiy qism: Tadqiqotda shaharsozlikning ekologik ta'sirini baholash uchun bir qator matematik modellar ishlatilgan. Masalan, yashil hududlarning yo'qolishi natijasida atmosferada qoladigan CO₂ miqdori hisoblangan, shuningdek, transportning havo ifloslanishiga ta'siri va