

Integration of green infrastructure in urban planning for sustainable development: lessons from Tashkent

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Abstract: In order to promote sustainable development in Tashkent, this research explores how green infrastructure is included into urban design. A literature review, case study analysis, and interviews with important players in the urban planning and green infrastructure sectors were all part of the research process. The findings suggest that by encouraging environmental, social, and economic sustainability, the integration of green infrastructure may support sustainable development. However, competent leadership, stakeholder involvement, and enabling policy frameworks are necessary for integrating green infrastructure into urban planning. In order to achieve sustainable development, the paper's conclusion emphasizes the necessity for policymakers to give green infrastructure integration in urban planning top priority.

Keywords: green infrastructure, urban planning, sustainable development, Tashkent, stakeholder engagement, policy framework, leadership

Introduction:

As a strategy for attaining sustainable development, the incorporation of green infrastructure into urban design is gaining popularity. A variety of advantages may be gained through green infrastructure, which includes natural and semi-natural elements including parks, green roofs, and urban forests. These advantages include bettering the quality of the air and water, lowering the impacts of urban heat islands, and boosting biodiversity. In order to promote sustainable development in Tashkent, this essay investigates how green infrastructure is included into urban design.

Limitation of Study:

The lack of data and knowledge on the incorporation of green infrastructure in urban planning for sustainable development in Tashkent places restrictions on this study. Although every attempt was made to acquire as much data as possible, the scope and depth of the study may have certain limits. The research is further constrained by the fact that it does not examine other aspects of sustainability, such as social and economic sustainability, and instead focuses primarily on the integration of green infrastructure in urban design.

Methodology:

The research technique included a survey of the literature, analysis of a case study, and interviews with significant figures in Tashkent's urban planning and green infrastructure industries. A thorough search of academic journals, books, and papers on the incorporation of green infrastructure in urban planning for sustainable development was done for the literature study. The case study research concentrated on a number of Tashkent urban planning initiatives that incorporated green infrastructure and looked at how well they promoted sustainable development. Urban planners, legislators, architects, engineers, and members of the public were all questioned about how they felt about including green infrastructure into urban development.

Literature Review:

The literature review emphasizes how green infrastructure has the potential to support sustainable development by offering a variety of social, economic, and environmental advantages. These advantages include of boosting biodiversity, lowering the impacts of urban heat islands, strengthening air and water quality, encouraging physical and mental wellness, and generating economic possibilities. To be successful and sustainable, however, the integration of green infrastructure must be backed by strong leadership, stakeholder involvement, and favorable policy frameworks.

The paper's main body investigates how Tashkent's urban planning for sustainable development incorporates green infrastructure. The case studies of urban planning initiatives in Tashkent show how the incorporation of green infrastructure has the potential to have major positive effects on the environment, society, and the economy. The case studies also illustrate the difficulties in integrating green infrastructure, such as the requirement for more supporting legislative frameworks, leadership, and stakeholder involvement.

Results:

According to the study's findings, integrating green infrastructure may support economic, social, and environmental sustainability while fostering sustainable growth. The case studies in Tashkent show the potential for substantial advantages from integrating green infrastructure, but they also draw attention to the difficulties in doing so, such as the need for more stakeholder involvement, helpful policy frameworks, and leadership. In order to achieve sustainable development, it is crucial to give the integration of green infrastructure top priority in urban planning.

Discussion:

In order to achieve sustainable development, the discussion part emphasizes the necessity for policymakers to give green infrastructure integration in urban planning top priority. The case studies in Tashkent emphasize the difficulties involved in integrating green infrastructure while also highlighting the potential for major environmental, social, and economic advantages. To achieve the successful integration

of green infrastructure in urban design, strong leadership, stakeholder involvement, and supporting policy frameworks are required.

Conclusions:

The inclusion of green infrastructure into urban design, the research concludes, may support environmental, social, and economic sustainability, which in turn can support sustainable development. The case studies in Tashkent show the potential for large advantages from integrating green infrastructure, but they also draw attention to the difficulties in doing so. In order to guarantee that green infrastructure is properly implemented, governments should give it top priority in urban planning and invest in education and capacity building.

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