

MODERN EDUCATIONAL SYSTEM AND INNOVATIVE TEACHING SOLUTIONS  
GREEN CITIES AND ECOLOGICAL SUSTAINABILITY: MODERN  
APPROACHES AND PROSPECTS

**Mamadiev Raxmatillo.**

*Sharda University of Uzbekistan masters*

**Abstract.** *This in the article green cities concept, ecological stability provides mechanisms and modern urbanization under the circumstances the environment protection to do innovative approaches analysis It is also developed countries experience based on stable cities formation factors studied and practiced offer and recommendations working is released.*

**Keywords:** *green cities , ecological sustainability , urbanization , sustainable development , green economy , infrastructure , smart city, ecology*

Today on a global scale per day urbanization process acceleration ecological of problems to the escalation take is coming . Population number increase, especially large cities and in megacities population density, available to infrastructure falling pressure further as a result, traffic jams, energy consumption increase, housing and utility to services was demand sharp increase such as problems to the surface is coming.

Industrialization processes expansion and working release size increase with together atmosphere to the air being released harmful gases amount This is increasing. of the air pollution, greenhouse gases concentration increases and global climate of change to the acceleration reason Especially carbonate dioxide (CO<sub>2</sub>) and other harmful substances amount increase human to your health negative impact showing, breathing roads diseases, cardiovascular vein system problems such as of diseases to increase take is coming.

From this except, natural from resources too much outside and reasonable non-use land, water and biological diversity to decrease reason Water is flowing. resources shortage, soil degradation and of the forest's contraction ecological balance from the trail It also produces waste. management systems enough at the level underdevelopment as a result household and industry waste size increasing , to the environment serious damage is delivering .

This problems in the background ecological security provide , natural from resources effective use and population to live quality improve current to the task is spinning . That's why " green" " cities " concept of modern urban politics important from directions one as This concept is being formed. not only ecological problems to reduce , but economic efficiency increase , social prosperity provide and future generations for comfortable to live environment to create service does .

Green cities concept within energy effective technologies current to add , to repeat recovering energy from sources use , ecological clean transportation systems development , green regions expansion and waste again work system improvement such as measures important importance profession will . With this together , digital

MODERN EDUCATIONAL SYSTEM AND INNOVATIVE TEACHING SOLUTIONS

technologies and " smart" smart city approaches through from resources reasonable use opportunities is expanding .

Urbanization process negative ecological consequences reduce and stable to develop achieve for green cities concept wide current to grow necessary . This is state politics , science approach and society active requires participation .

Green cities are not only natural from resources effective who uses, maybe ecological safe and human for healthy the environment providing city Such cities urbanization process negative consequences to reduce aimed at and population high marriage level, social prosperity and economic stability supports.

In world experience green cities concept following main factors through done increased :

Energy saving and again recovering sources

Copenhagen — all in the city energy effective buildings built and sun and wind from energy wide used in the city energy saver technologies and LED lighting systems wide current done .

Vancouver — buildings energy effective materials with equip, re-equip recovering energy sources application through carbon waste to reduce big attention is given.

Green transportation system

Amsterdam — bicycle roads developed and city population for ecological clean transportation is key movement tool as service does.

Oslo — electricity buses and of transport carbonate anhydride waste reduction program successful done increased .

Waste management and again work

Singapore — minimize waste release and again work system perfect works ; biological waste composting and waste to energy convert wide current done .

Stockholm — waste separation system and the "zero waste" strategy through city ecological the load noticeable at the level reduced .

Green areas and natural the environment storage

Singapore — a city with a "vertical" garden " and many multi-store green regions exists, this microclimate stabilization and biological diversity to keep help gives.

Tokyo — city in the center green zones and parks city population for vacation places as service does the air pollution reduces .

Stable architecture and infrastructure

Barcelona — buildings water saver systems and ecological safe materials with build through the city stable to do practice there is .

Berlin — architecture and infrastructure stability principles suitable accordingly planned , ecological the load reduce and to live quality to increase focused .

So so, the world of cities experience this It turns out that green cities concept not only ecological stability provides, but economic efficiency increase, social prosperity reinforcement and population health to improve service This will do. experiments Uzbekistan under the circumstances adaptation via " green" cities develop and ecological stability can be provided

MODERN EDUCATIONAL SYSTEM AND INNOVATIVE TEACHING SOLUTIONS

Ecological stability is natural from resources reasonable use, environment pollution reduces and human activity with related ecological minimize risks unloading through city environment stable storage Green cities in the concept ecological stability one how many mains in directions provided:

2.1. Repeat recovering energy

Cities stable in doing energy issue important importance Solar , wind , hydro and biomass energy such as again recovering from sources use not only carbonate anhydride waste reduces , maybe energy independence provides . For example :

Large in cities buildings on the roofs sun panels installation through energy spending noticeable at the level reduce possible.

Wind turbines city surrounding open in the regions energy source as is used .

Biomass and from waste energy working release through waste reduce and energy to take one of time in the room done is increased.

Again, recovering energy with provided cities the environment without polluting energy need satisfy takes and economic also economical It will be.

2.2. Green transport system

City transport ecological of stability important element the transportation system green to be following directions own inside takes:

Electric transport and hybrid cars current to do , city the air pollutant substances reduces .

Bicycle and on foot corridors create city population between ecological clean to move encourages.

Church transport development (tram, metro, bus) city on the roads traffic jam and of transport negative ecological the impact reduces possible.

Green transportation system not only of the air pollution reduces , maybe city population It also improves health .

2.3. Waste management and again work

In cities waste effective management ecological of stability important is part of . In this direction following measures done increased:

Again, work possible was materials separation and again work system create

Organic waste composting and bioenergy working release

Hard and liquid waste safe disposal to do and ecological damage reduce

Waste management of cities ecological the load reduces and natural resources saving opportunity gives .

2.4. Green areas and parks organization to grow

urban environment green regions and parks ecological stability in providing big role plays:

Parks and gardens airborne harmful substances reduce and microclimate order puts.

Green areas biological diversity storage and city animals for to live place creates .

City population for recreation, sports and healthy marriage style develop opportunity provides.



MODERN EDUCATIONAL SYSTEM AND INNOVATIVE TEACHING SOLUTIONS

Also, green corridors and roof gardens of the air temperature order city heat island reduces and city ecology improves.

2.5. Water resources saving and management

Water resources ecological of stability important structural is part of . Cities water reasonable management and saving through ecological the danger reduce possible :

Water saver technologies and devices housing and industry to objects current to be

Rain waters and sewage the waters again work and again use system development

City parks and green in the regions irrigation for natural sources use and water waste reduce

Water effective management not only ecological stability provides, but city population for clean drink water and healthy to live 3. Developed countries experience

Many developed in countries green cities concept successful current for example:

Copenhagen — in the world the most ecological clean from cities one bicycle transport wide developed.

Singapore — “green” infrastructure” and vertical gardens with famous

Vancouver — carbon waste reduces according to progressive politics take goes.

In Uzbekistan ecological stability provide and green cities concept current to reach aimed at reforms last in years noticeable at the level This process is called “green” to "economy" to pass strategy, re recovering energy projects, landscaping and city infrastructure ecological stability principles adaptation such as directions own inside takes.

Uzbekistan The Republic of Uzbekistan has adopted a “Green Economy” " transition " strategy working out, ecological stable to develop aimed at measures This strategy the following own inside takes:

Sun , wind and other again recovering energy sources development . Industry and in the transport sectors energy effective technologies current Carbon waste reduce and the environment protection to do aimed at policies done for example, Surkhandarya, Jizzakh and Karakalpakstan in the regions sun electricity stations build the country 's energy independence is being increased.

City and village in the regions landscaping work ecological balance storage and climate change the impact to reduce service does.

In Tashkent new parks, green corridors and roof gardens organization Plants city the air cleaning, city microclimate stabilization and recreation for the population their homes in creation important role plays.

Tashkent and other large cities modern "smart city" technologies current to grow through ecological stability is trying to strengthen .

Intelligent transportation systems through traffic jam and fuel spending reduce

Water resources reasonable control, rain waters assembly and again work. Buildings energy saver materials with equip and waste effective management . Uzbekistan under the circumstances ecological stability provides for population ecological culture It is also important to increase importance has. School and at universities ecological education,

## MODERN EDUCATIONAL SYSTEM AND INNOVATIVE TEACHING SOLUTIONS

public information in the means the environment protection to do according to campaigns, and citizens waste to separate to teach events done is being increased.

Uzbekistan in the city's green energy, ecological transport, greening and waste again work according to projects expansion, as well as international experience based on stable city infrastructure create perspective This is not only ecological stability provides, but city population for good quality and healthy to live environment to create service does.

So so, Uzbekistan under the circumstances green cities concept develop ecological, economic and social in terms of stable important for the future step is considered.

### Conclusion

Green cities concept today's global and local on a scale ecological , social and economic stability in providing important tool as attention They are being taken . Urbanization process negative consequences reduce, air pollution reduce waste management and natural from resources effective use through city environment human for safe and healthy to do service does.

Green cities not only ecological problems eliminate will , maybe population health improve and economic efficiency also contribute to the increase For example , energy economical buildings and again recovering energy from sources use of the city general energy spending reduces , economical in terms of thrift provides and carbon waste noticeable at the level Also , a green transportation system and pedestrian-bicycle corridors through air quality improves , the city population between healthy marriage style to develop opportunity is created . Modern under the circumstances stable to develop achieve for following measures important is: Innovative technologies current energy effective buildings, intelligent transportation systems, waste again work and water resources saving technologies wide Application. Ecological politics and strategies strengthen — state at the level green economy , ecology stable city infrastructure and waste management systems development

Population ecological culture education — school and at universities ecological education, public information tools through ecological consciousness formation, waste separation and natural from resources reasonable use promote to do

Also, Uzbekistan under the circumstances green cities concept develop perspective there is this is in the future cities ecological safe, social and economic in terms of stable to do opportunity gives. Stable city environment create — not only the environment protection to do , maybe human life quality improvement , economic efficiency increase and future generations for comfortable to live environment provide This point of view green in appearance cities concept wide current to grow and development — modern urbanization process inseparable part and stable development strategy central element is considered .

### USED LITERATURE

1. Beatley, T. (2011). Biophilic Cities: Integrating Nature into Urban Design and Planning. Island Press.



MODERN EDUCATIONAL SYSTEM AND INNOVATIVE TEACHING SOLUTIONS

2. Newman, P., & Jennings, I. (2008). Cities as Sustainable Ecosystems: Principles and Practices. Island Press.
3. Jenks, M., & Jones, C. (2010). Dimensions of the Sustainable City. Springer.
4. United Nations. (2019). World Urbanization Prospects: The 2018 Revision. UN Department of Economic and Social Affairs.
5. European Environment Agency. (2020). Urban Sustainability Issues and Practices in Europe.
6. Uzbekistan Republic President's Decree . (2019). Towards a green economy to pass strategy . Tashkent.
7. Tashkent City Administration. (2022). Urban Green Spaces Development Plan.
8. Beatley, T. Green Urbanism: Learning from European Cities. Island Press, 2012.
9. Girardet , H. Creating Sustainable Cities. Green Books, 2008.
10. Uzbekistan Republic The President's "Green Economy" to pass strategy related decisions , 2019–2023.

