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## THE ROLE OF BICYCLE TRANSPORT DEVELOPMENT IN IMPLEMENTING THE “GREEN MAKON” NATIONAL PROJECT

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### Annotation

As part of this project, green spaces are being created in various cities, trees are being planted, and activities aimed at restoring the natural environment are being carried out. The "Green Makon" project is of great importance in supporting the development of cycling infrastructure, transforming cities into green spaces, and improving the ecological situation. This article addresses urgent issues related to enhancing the ecological environment and promoting the development of cycling transport.

**Keywords:** ecological environment, bicycle transport, "Green Makon" project, urban ecology, green spaces, bicycle lanes, restoration of natural environment, greening of cities, environmental sustainability, cycling infrastructure, reduction of car transport.

The transport complex is one of the biggest environmental polluters. On a national scale, the share of transport in total emissions of pollutants into the atmosphere from all sources is up to 45% (in cities – 85–95%), and in emissions of “climate” gases – up to 10%. The share of transport in urban noise pollution is 85–95%.[1]

Analyzing the impact of harmful gases emitted by cars on the environment is an important task in addressing modern environmental problems. In cities and large industrial centers, cars are considered the main contributors to air pollution. Harmful gases mainly consist of chemical compounds such as carbon monoxide, nitrogen oxide, carbon dioxide, and ozone. These compounds are emitted from automobile



fuel systems and degrade air quality when combined with the atmosphere, posing a great risk to human health.[2]

Transport infrastructure occupies up to 7%, and in cities – up to 20–30% (in some central areas – up to 40–50%) of the territory. Therefore, land pollution is considered the primary environmental problem.[1]

In response to this problem, many countries prioritize the development and use of transport vehicles with minimal environmental impact. New-generation vehicles, including electric vehicles and bicycles, produce negligible amounts of hazardous chemicals into the atmosphere.[2]

In Uzbekistan, the “Green Makon” national project was launched in November 2021 at the initiative of President Shavkat Mirziyoyev. The main goal of the project is to clean the air in city centers, protect people's lives, and contribute to improving their living conditions.[3]

The development of bicycle transport in urban areas contributes to the implementation of the “Green Makon” national project. Because:

Eco-friendly transport – Bicycles do not require fuel, do not pollute the air, and reduce greenhouse gas emissions. This aligns with the “Green Makon” project's goal of improving the environment.

Ensuring air cleanliness – Reducing the use of motor vehicles decreases harmful emissions, which helps improve the ecological environment in cities.

Preserving green areas – Bicycle infrastructure requires less land compared to roads and parking lots, which prevents the reduction of green areas.

Improving public health – Cycling increases physical activity, positively affecting public health.

Sustainable urban transport system – Developing cycling infrastructure along with public transport helps create a stable and convenient transportation system.

The advantages of bicycle transport include:

It is an environmentally friendly mode of transportation. Bicycles do not emit any harmful gases or pollute the environment.

It is beneficial for health. Cycling increases physical activity and helps prevent cardiovascular diseases.



It is economically affordable. No need for fuel or transport taxes, and maintenance costs are low.

It reduces urban transport load. Bicycle lanes help reduce traffic congestion.

There are several stages in the development of bicycle transport in urban conditions.

The planning stage includes:

A comprehensive analysis of the current state of the city's transport system;

Identifying locations for bicycle lanes, parking, and infrastructure;

Studying the demand and interest of the city population in bicycle transport;

Developing legislation and technical standards for bicycle use.

In the next stage, bicycle infrastructure is developed, including:

Building bicycle lanes along the main city routes;

Creating bicycle parking areas and rental stations;

Integrating bicycles with public transport (e.g., bicycle parking at metro stations);

Including dedicated bicycle lanes in newly constructed roads.

By implementing these stages, we can design and develop bicycle transport in urban areas.

To promote bicycle transport among the population, providing several incentives can significantly advance this transport mode. These initiatives consider both environmental and public health benefits. The following benefits and measures can help introduce and support cycling among the public:

Providing subsidies or tax benefits for purchasing bicycles;

Integrating bicycles into the public transport system, such as offering discounts for carrying bicycles on buses or subways;

Offering free or low-cost bicycle rental services.

One of the priorities in developing bicycle transport is conducting education and awareness activities among the population. These include:

Organizing lectures and training on bicycle safety;

Promoting cycling culture among youth and children;

Raising public awareness about the health and environmental benefits of cycling.

Education and awareness play a crucial role in introducing bicycles as a widespread public transport mode. Implementing these actions not only teaches people to use



bicycles safely and effectively but also engages society in a healthy and environmentally friendly lifestyle.

In conclusion, it should be noted that projects like “Green Makon” and the development of bicycle transport lead to significant results with both environmental and health benefits. Bicycles are eco-friendly transport modes that do not pollute the air, reduce greenhouse gas emissions, and improve the health of city residents. In addition, bicycles help reduce urban traffic congestion and play an important role in eliminating traffic jams in cities.

To further develop bicycle infrastructure and increase its demand, financial incentives and education-awareness efforts are very important. By constructing bicycle lanes across cities, integrating bicycles into the public transport system, conducting safety training, and organizing awareness campaigns, it is possible to teach city residents an environmentally friendly and healthy lifestyle.

Furthermore, the benefits of bicycles are not only environmental but also economic and health-related. Increasing interest in bicycles and integrating them into the wider public transport system can help protect the environment, strengthen public health, and improve the ecological condition of cities. Thus, the development of bicycle transport and implementation of the “Green Makon” project will be an important step in solving environmental problems.

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