











Green transport in providing a comfortable urban environment



The comfort of the urban environment is determined by:



Safety

Arranging public spaces

Inclusive mobility

Active business environment and investment policy

Jobs availability

Social security

Rational planning and placement scheme

Multicultural integration

Organization of leisure activities

Extensive accessible infrastructure

Developed
system
of services and
communication
s

Ecology and healthy lifestyle

Level of digitalization



Comfort indexes of cities in national and international ranking



- Urban environment quality index
- Index of livable cities
- Overall rating of attractiveness of cities
- Rating of smart cities
- Rating of innovative cities
- Global Cities Index
- Rating of cities for remote working





Transport dimension of comfort and liveability in the cities





Reliability and traffic safety

Barrier-free mobility

Internal and external system interaction of the urban environment

Uninterrupted and multimodal transportation



Transport dimension of comfort and liveability in the cities





Optimal permissible driving speeds

Efficient route networks and logistic schemes

Built-in and connectivity of transport infrastructure

High traffic capacity of the road space



The accesibility of urban transport environmental performance is due to:



Deindustrialization of cities

Global coherence of actions to achieve the Sustainable Development Goals in relation to reduce the negative impact of transport on air quality and the state of the city's environment

Wide development of "green" technologies and their targeted implementation in the transport sector

Consistent integration of environmentally friendly transport systems into strategic urban development plans

Inclusion in international and national legislation of environmental rules, regulations and restrictions on the modes and technologies of exploited transport

Active presentation of eco-driving modes, energy-saving supply chains in the work of urban transport

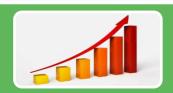


Challenges in achieving environmental indicators in urban transport





Lack of equal opportunities for cities in different countries to provide adequate funding for green transport projects



Global consumption growth



Stable high demand for petroleum products and use of gasoline vehicles



Insufficient level of ecological culture of citizens in the use and perception of transport



Reduced investment in sustainability transport projects in the context of the prolonged pandemic crisis



Existence of a psychological separation of the concepts of "environmental friendliness" and "comfort" of transport



Features of the development of green transport in Russian cities



- ✓ Formation of most urban agglomerations as monocentric environments tied to large, usually environmentally harmful, industrial centers and extractive industries with a network of mainly freight and industrial transport
- ✓ Demographic problems of remote urban areas, an objective reduction in the demand for mobility and, as a result, the transfer of environmental problems of transport to the secondary category
- ✓ Lack of sufficient funds for the development of new energy-saving transport technologies in a number of cities















The indicators of the attractiveness of Russian cities in relation to transport are presented by:



LEVEL OF
DEVELOPMENT
OF PUBLIC
TRANSPORT

PRESENCE OF
MULTIFUNCTIONA
L TRANSPORT HUBS
IN URBAN
AGGLOMERATION
S

NUMBER OF ROAD ACCIDENT



SAFETY
OF VEHICLES,
CONDITION
AND CAPACITY
OF THE ROADS

TRANSPORT ACCESSIBILITY

DEGREE OF TRAFFIC CONGESTION Special "green"
transport indicators
are practically
absent in the
internal ratings for
assessing the urban
environment



Despite the prosperity of several Russian cities (such as Novosibirsk, Novorossiysk, Krasnodar, Krasnoyarsk) their transport:





GENERATES UP TO 70% OF HARMFUL EMISSIONS



PROVIDES A SIGNIFICANT
CONCENTRATION OF TOXIC SUBSTANCES IN
THE ATMOSPHERE, EXCEEDING THE
PERMISSIBLE LIMITS



POLLUTES THE URBAN WATER AREA WITH WASTE WATER



HAS A SERIOUS NEGATIVE IMPACT ON THE HEALTH, MORBIDITY AND MORTALITY OF THE POPULATION



The comfort of the urban environment is determined by:





Expansion in the urban
public transport fleet,
operating on natural
gas (Kazan,
Yekaterinburg,
Samara, Ufa,
Kaliningrad)

Replacement of diesel buses with electric buses (Moscow, Perm)

Expanding
infrastructure
opportunities for
cycling and off-street
transport (Sochi)

Increasing the share of underground' electric transport (Moscow)

Widespread use
of electric scooters
as an everyday means
of transportation
(Kursk)

Restriction of movement of cargo transport in the city (St. Petersburg, Krasnodar, Krasnoyarsk)

Implementation
of a system for regular
monitoring
of the environmental
performance of urban
located ports (from
2022)

Improving fuel standards



In the developing programs and monitoring systems of cities in the Russian Federation it is necessary to more actively introduce indicators of increasing the sustainability of transport, ensuring the necessary balance in solving economic, social and environmental problems through:

MOVING AWAY FROM
THE INERTIAL
MODEL OF URBAN
DEVELOPMENT
AND TRANSPORT
NETWORKS

INTEGRATING
SUSTAINABLE
DEVELOPMENT
GOALS IN
TRANSPORT - INTO
THE PRIORITIES OF
CURRENT AND
FUTURE RUSSIAN
NATIONAL AND
MUNICIPAL POLICY

RESTRUCTURING THE
BUDGETARY POLICY
OF CITIES TOWARDS
INCREASING
FUNDING FOR THE
INTRODUCTION OF
GREEN
TECHNOLOGIES AND
ECO-TRANSPORT





Thank you for your attention!

Prof. Dr. Irina Karapetyants

Director of Institute of International Transport

Communications

Russian University of Transport (RUT)

E-mail: Karapetyants.IMO.MIIT@gmail.com

https://rut-miit.ru/

https://www.imtk-rut.com/