

SUSTAINABLE URBAN MOBILITY

Lesson 1: Concept of sustainability and mobility

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Sustainable Transportation within the Framework of Green Deal - SPHERE

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Agenda:

- Course Objectives and Learning Outcomes
- Definition of Urban Mobility
- Importance of Sustainable Mobility
- Global Urbanization Trends
- Growth of Motorization

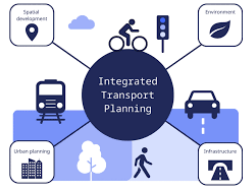
Course Objectives and Learning Outcomes

Sustainable Urban Mobility course equips participants with the skills to design, analyze, and implement eco-friendly, efficient, and inclusive transport networks. Key objectives focus on integrating land use with green transit, advancing active mobility, and mitigating the environmental and social impacts of urban transport



Course Objectives and Learning Outcomes

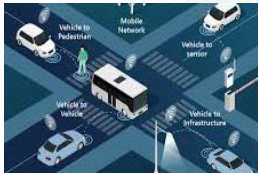
Core objectives typically include the following learning outcomes:



Develop Strategic Frameworks: Formulate Sustainable Urban Mobility Plans (SUMPs) that integrate transport, environmental, and land-use strategies.



Promote Active and Inclusive Mobility: Design and support infrastructure for pedestrian networks, cycling lanes, and safe, accessible transit for all demographics.



Integrate Smart Mobility Solutions: Leverage Intelligent Transport Systems (ITS) and Mobility-as-a-Service (MaaS) platforms to merge public transit, micromobility, and shared mobility options.



Mitigate Environmental Impacts: Strategize the electrification of urban fleets, deployment of zero-emission vehicles, and reduction of air and noise pollution.



Optimize System Efficiency: Diagnose mobility performance using real-world data and demand management strategies to solve urban congestion.

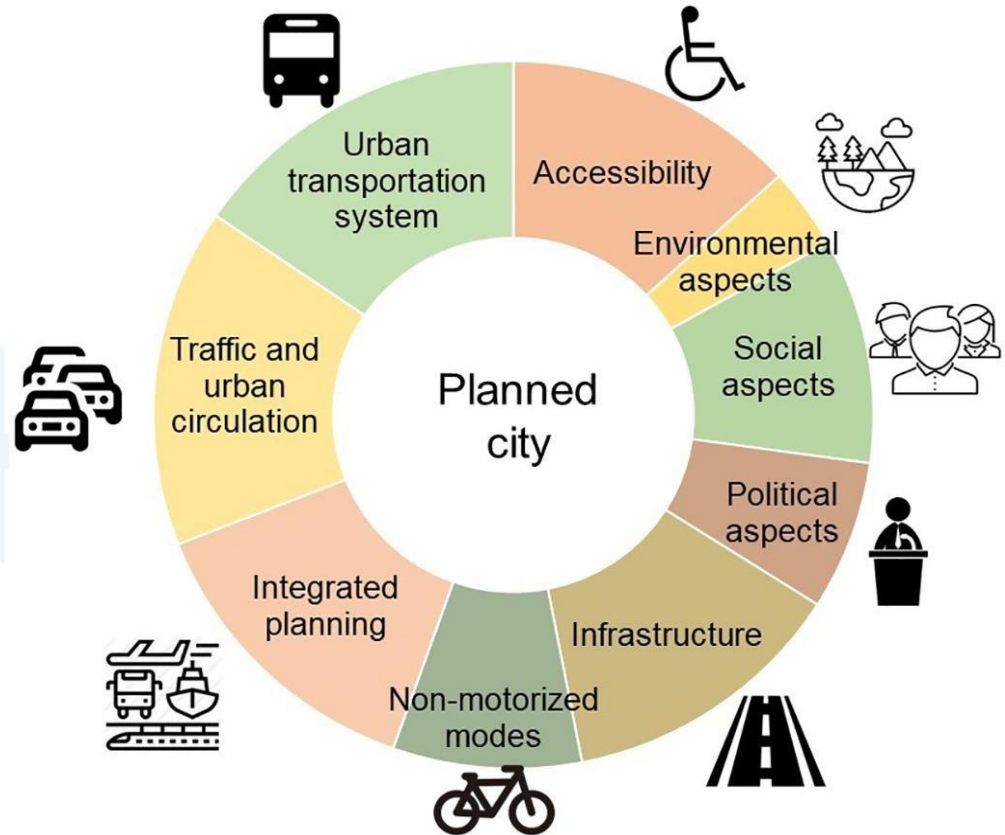
Definition of Urban Mobility

Urban mobility refers to the movement of people and goods within urban areas using different modes of transport, such as walking, cycling, public transport, and private vehicles. It focuses on providing safe, efficient, accessible, and sustainable transportation options that enable people to reach workplaces, schools, healthcare facilities, and other essential destinations. Effective urban mobility plays a key role in improving quality of life, reducing traffic congestion, and supporting sustainable urban development.



Importance of Sustainable Mobility

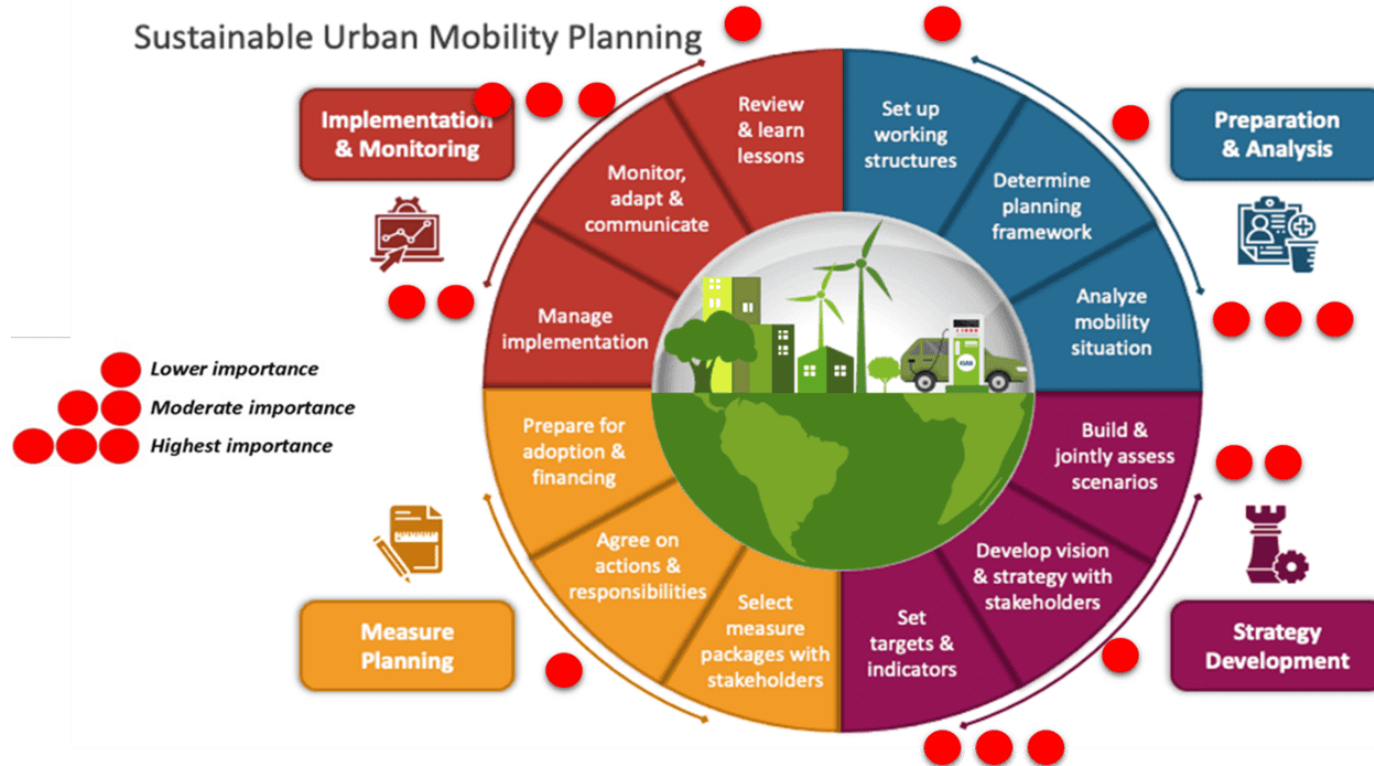
Sustainable mobility is essential for creating safe, efficient, and environmentally friendly transportation systems. It aims to meet the mobility needs of people while minimizing negative impacts on the environment, public health, and the economy. By promoting public transport, walking, cycling, and low-emission vehicles, sustainable mobility helps reduce traffic congestion, greenhouse gas emissions, air pollution, and energy consumption. It also improves accessibility, enhances the quality of urban life, and supports long-term economic and social development.



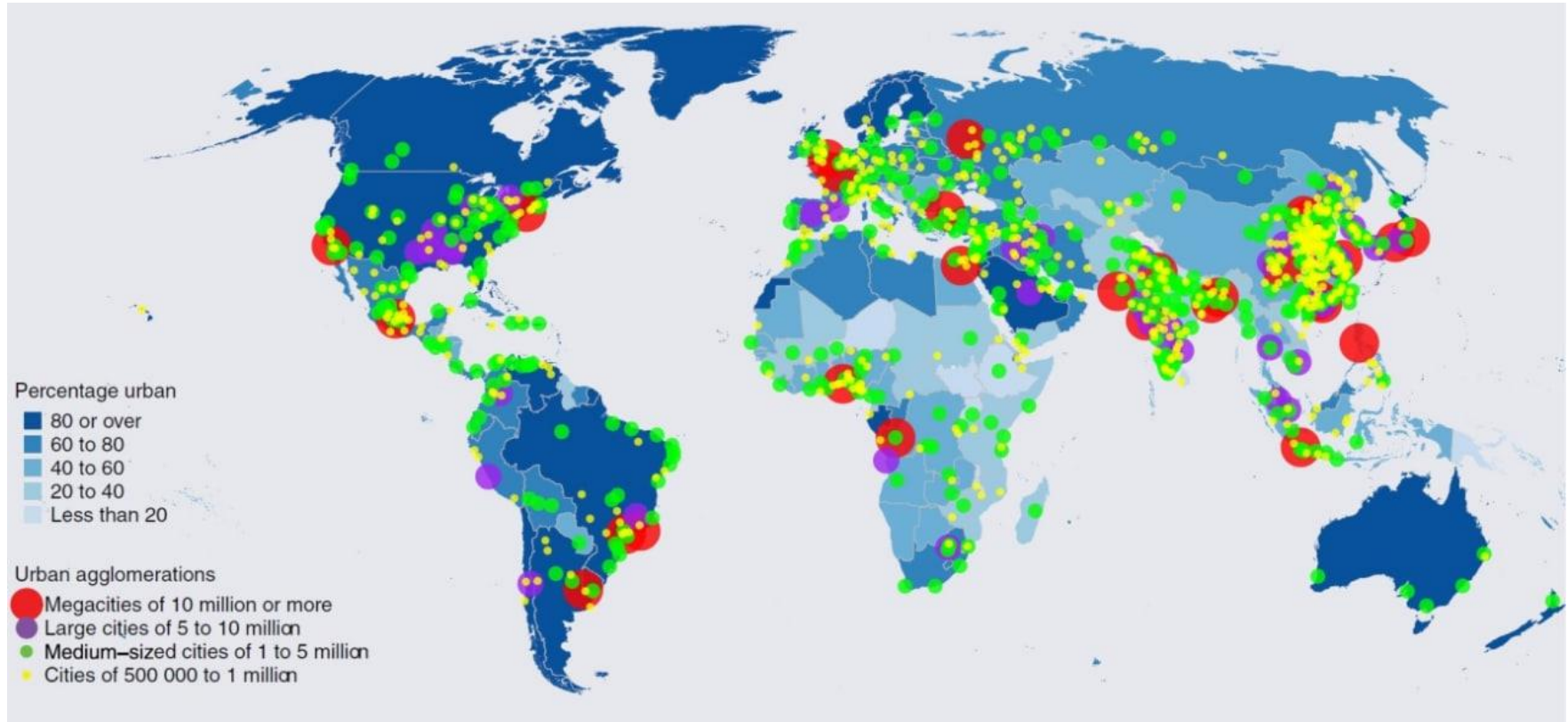
Importance of Sustainable Mobility

SUSTAINABLE URBAN MOBILITY

Sustainable Urban Mobility Planning

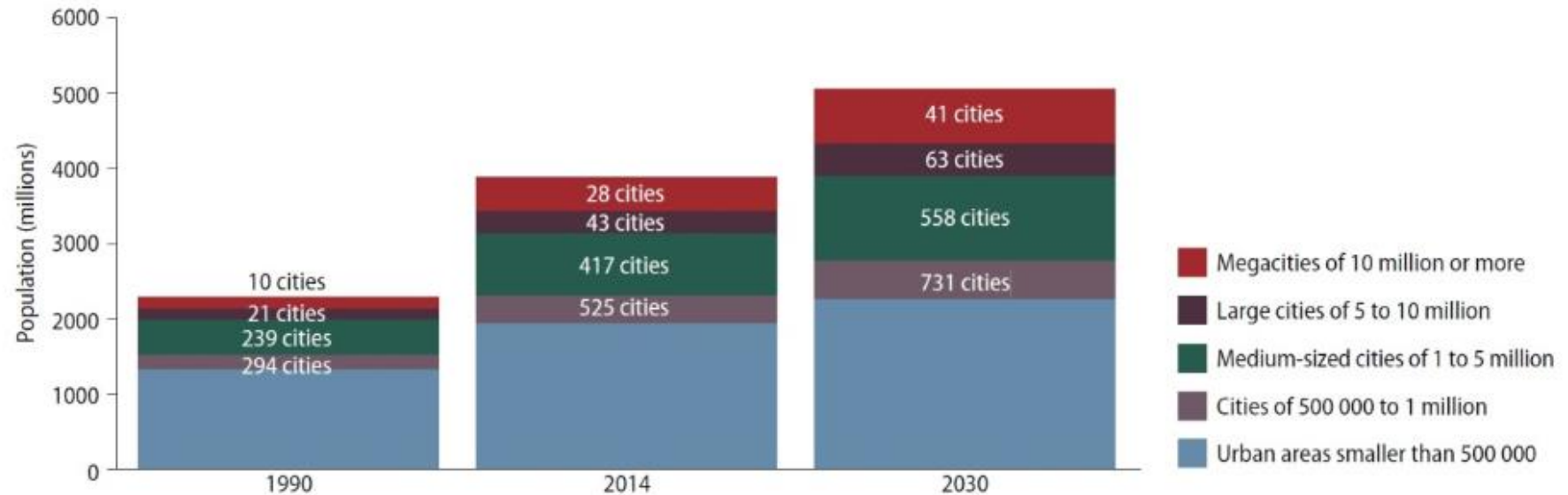


Global Urbanization Trends



Global Urbanization Trends

Global urban population growth is propelled by the growth of cities of all sizes



Source: UN | World Urbanization Prospects: The 2014 Revision, Highlights

Global Urbanization Trends

Urbanization is one of the most significant global trends of the 21st century. The world's urban population continues to grow rapidly due to population growth, economic development, and rural-to-urban migration. As cities expand, the demand for housing, transportation, public services, and infrastructure also increases. These trends create both opportunities for economic growth and challenges such as traffic congestion, environmental pollution, and resource consumption. Therefore, sustainable urban planning and mobility solutions are becoming increasingly important.

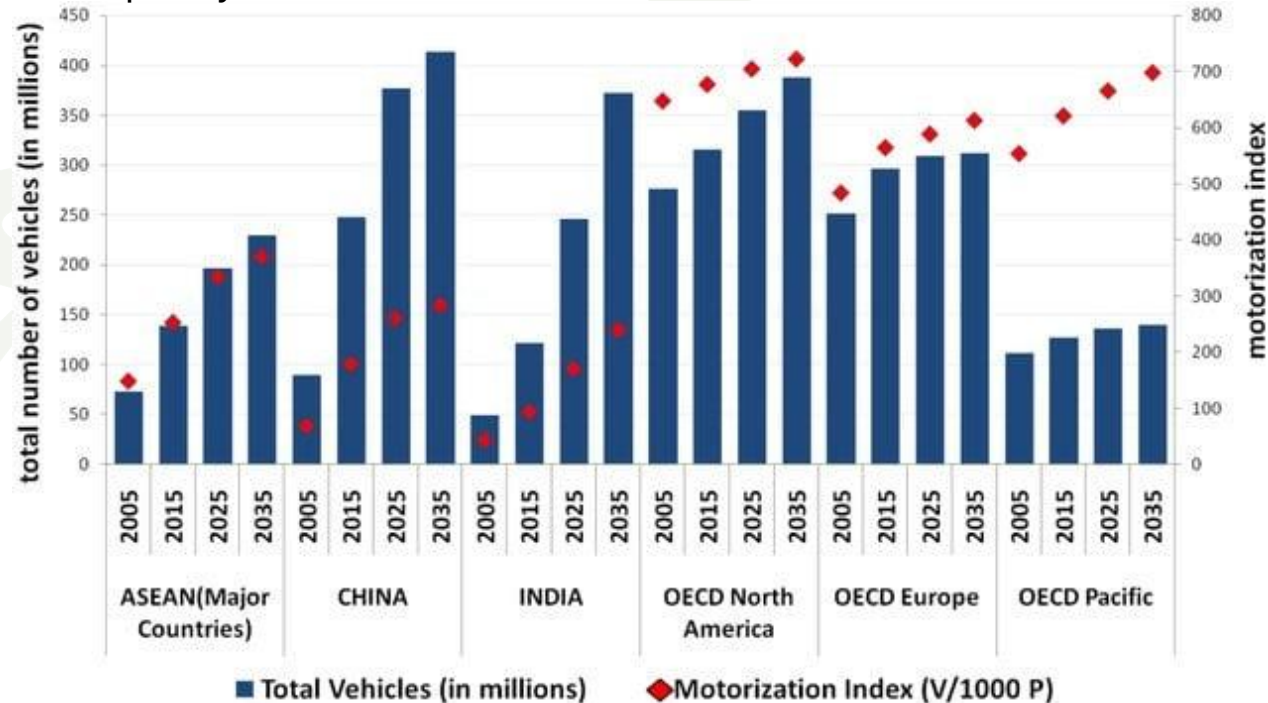


Global Urbanization Trends

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Growth of Motorization

The growth of motorization is the process of increasing the number of private and public transport vehicles in society and the population's need for transport. It is directly related to economic development, increasing living standards and urbanization, and causes both positive and negative changes in the transport system.



Growth of Motorization

In Tashkent, an average of 178 British cars are brought in per 1,000 people

According to the data of the State Statistical Office, in 2022, 87 British cars are brought in per 1,000 people for permanent security services in Uzbekistan.

<https://kun.uz/news/2023/01/06/toshkentda-har-1000-kishiga-ortacha-178-tayvengil-avtomobil-togri-kelmoqda>



Berlin. The number of cars in Germany is steadily increasing. At the beginning of 2025, there were 590 passenger cars per 1,000 inhabitants, as reported by the Federal Statistical Office on Thursday. For comparison, the car density was slightly lower in 2024 at 588 cars, and in 2023 it was 587. "The car density has been rising steadily since 2008," the statisticians concluded.

<https://www.handelsblatt.com/politik/deutschland/neuer-rekord-auto-dichte-in-deutschland-nimmt-weiter-zu-01/100149600.html>

Thank you for your attention!

