TASHKENT, UZBEKISTAN

URBAN TRANSPORT PROFILE

December 2024

Asian Transport Observatory

Summary

Tashkent, with its population of 3.7 million, faces the typical urban transport challenges of a rapidly growing city in Central Asia. While the city boasts a well-developed transport network, including a metro system and an extensive bus network, private vehicle use dominates, with 70% of trips made by private modes. This contributes to significant traffic congestion, exacerbated by the daily influx of 300,000 vehicles from surrounding areas. Tashkent's road infrastructure, at 2 kilometers per thousand capita, is also significantly lower than the national average, further compounding congestion issues. Despite these challenges, Tashkent has a relatively high level of rapid transit coverage, with 19 kilometers of metro per million population, exceeding the national average.

Recognizing the need for sustainable transport solutions, Tashkent is actively pursuing initiatives to improve its urban mobility. The city's Urban Mobility Plan prioritizes green options like electric buses, cycling, and walking. With an ambitious target to double public transport ridership by 2030, Tashkent is investing in its metro system, expanding its bus fleet (including the addition of electric buses), and promoting cycling infrastructure. Efforts are also underway to optimize bus routes, enhance the public transport tariff system, and prioritize road infrastructure development for public transport. These initiatives are crucial not only for reducing congestion and improving air quality (Tashkent currently emits 2.8 million tonnes of CO2 annually) but also for enhancing accessibility and quality of life for residents.

However, challenges remain. The effectiveness of dedicated bus lanes needs improvement, and the lack of a comprehensive urban development master plan may hinder long-term sustainability. Furthermore, while the recent surge in registered taxi drivers following simplified registration procedures may contribute to transport options, it could also exacerbate congestion if not managed effectively. Continued policy efforts to integrate land-use planning with transport strategies, improve the efficiency of public transport, and promote sustainable modes like walking and cycling will be vital for Tashkent to achieve its ambitious goals and create a truly sustainable and efficient urban transport system.

About the Urban Transport Profiles

The Asian Transport Observatory (ATO) Urban Transport Profiles provide a comprehensive snapshot of urban transport dynamics for 40 cities in the Asia-Pacific region. These profiles compile data from official city reports, relevant sources from reputable research organizations, multilateral development institutions, international experts' reports, secondary studies, and all other research endorsed or guided by city governments. Featured cities are benchmarked against other cities, where data is available, in the region, subregional averages — and in some cases, global cities — offering valuable comparative insights. In cases where data is not available, placeholders for the graphs are retained. Each profile also includes a curated list of relevant urban transport policies and documents, presenting a concise overview of the city's policy framework. By covering a wide range of transport-related indicators, these profiles serve as a critical resource for understanding and improving urban transport systems.

General

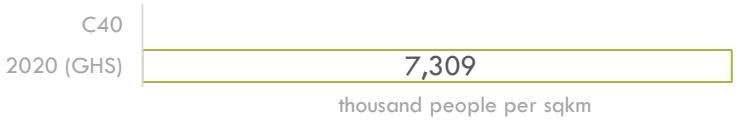
Population 3.7 million
(2020) (GHS)

Land area 504 sqkm
(2015) (GHS)

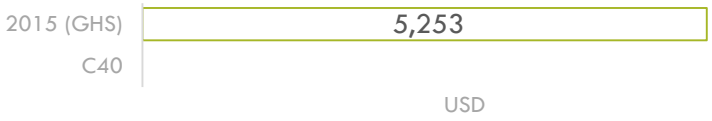
Population density 7 thousand per sqkm
(2020) (GHS)

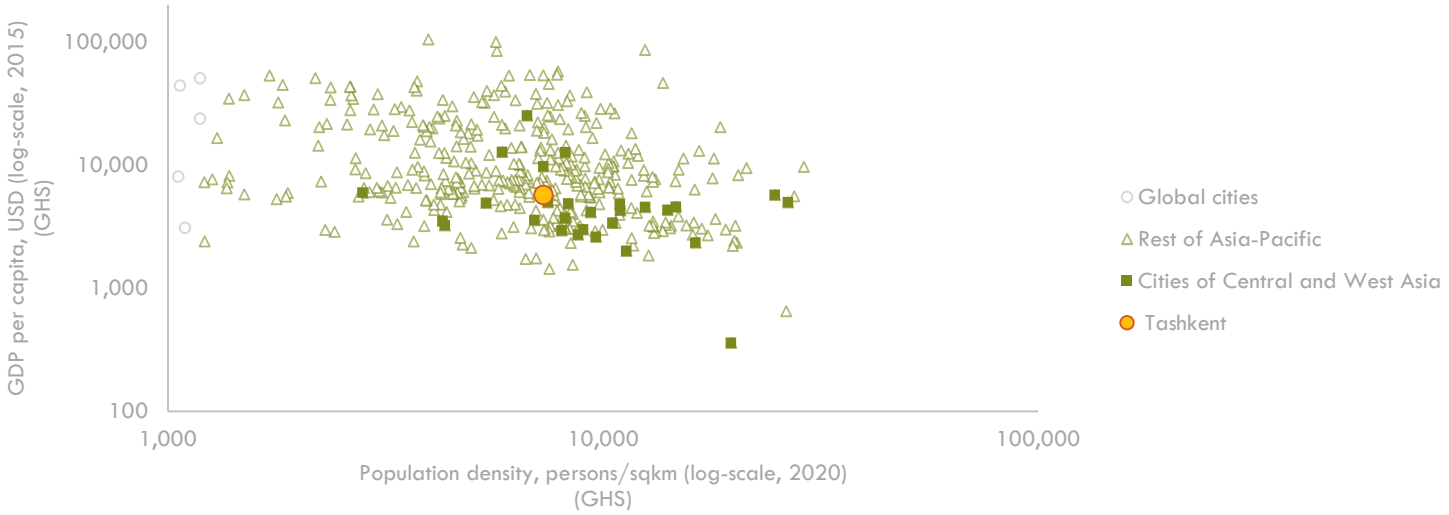
GDP per capita 5 thousand USD
(2015) (GHS)

Population density



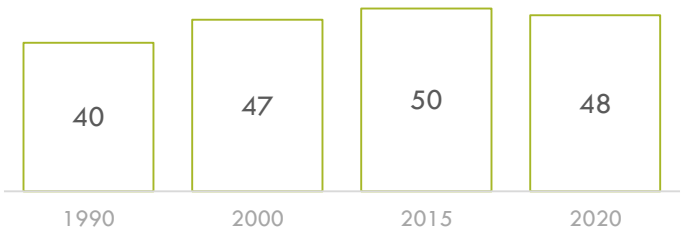
GDP per capita



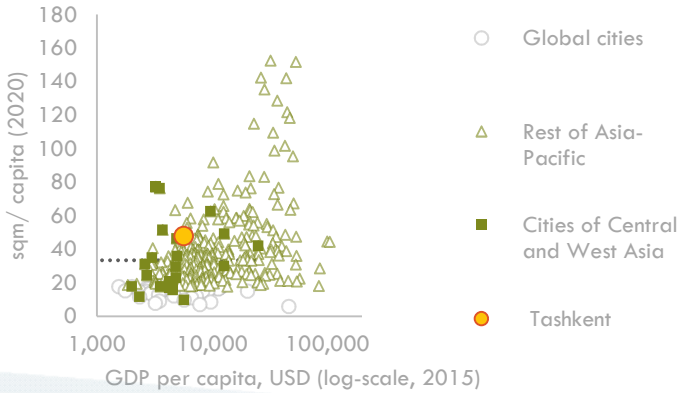


Urban Form and Structure

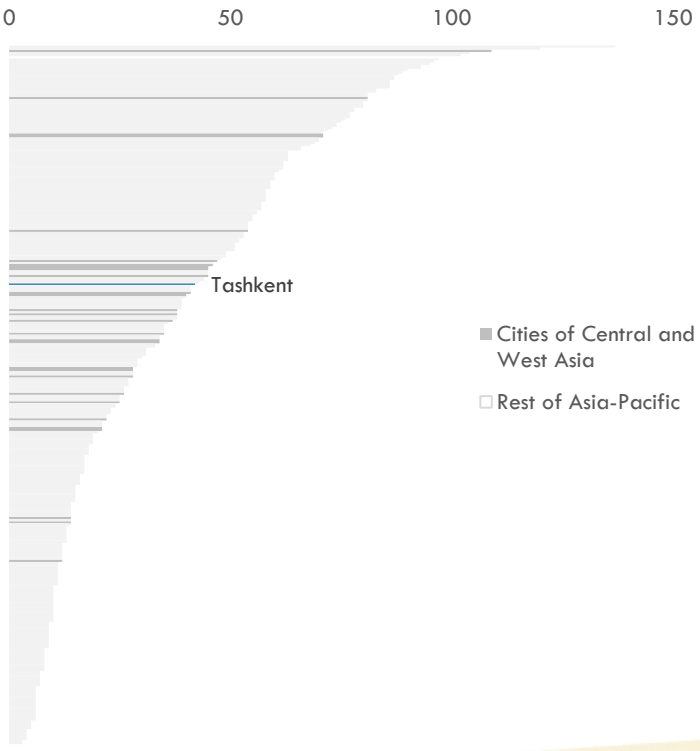
Builtup area per capita
sqm per capita (GHS)



Builtup area per capita
(GHS)

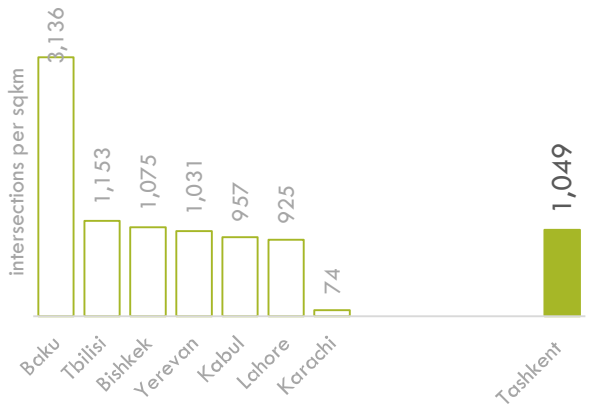


Mean block density
blocks per sqkm (2020) (ITDP)



Intersection density

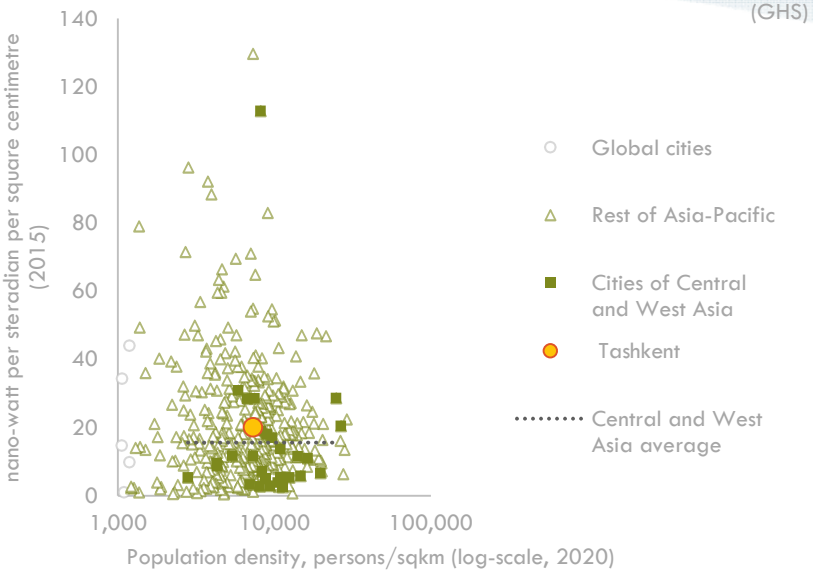
(Oke et.al. (2019) (OSM))



(a) Night time light intensity studies illustrate urban forms and patterns by mapping human activity, infrastructure, and connectivity, offering insights into urban sprawl, density variations, and transport network

Night time light intensity (a)

(GHS)



Urban Transport Infrastructure

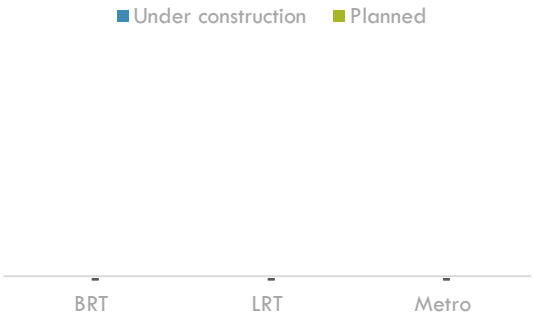
Road availability

kilometers per thousand population (2019) (Oke et.al. (OSM) and GHS)

Road kilometers n.d.

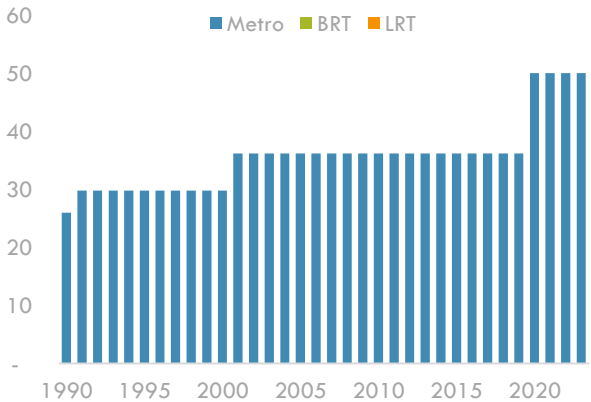
Rapid transit infrastructure

(2024) (TE)



Rapid transit infrastructure

kilometers (ITDP, Primary data)



BRT none

LRT none

Metro 50 kilometers

Total 50 kilometers

(2023) (ITDP)

Rapid transit availability

kilometers per million urban population (2021) (ITDP, Primary data)

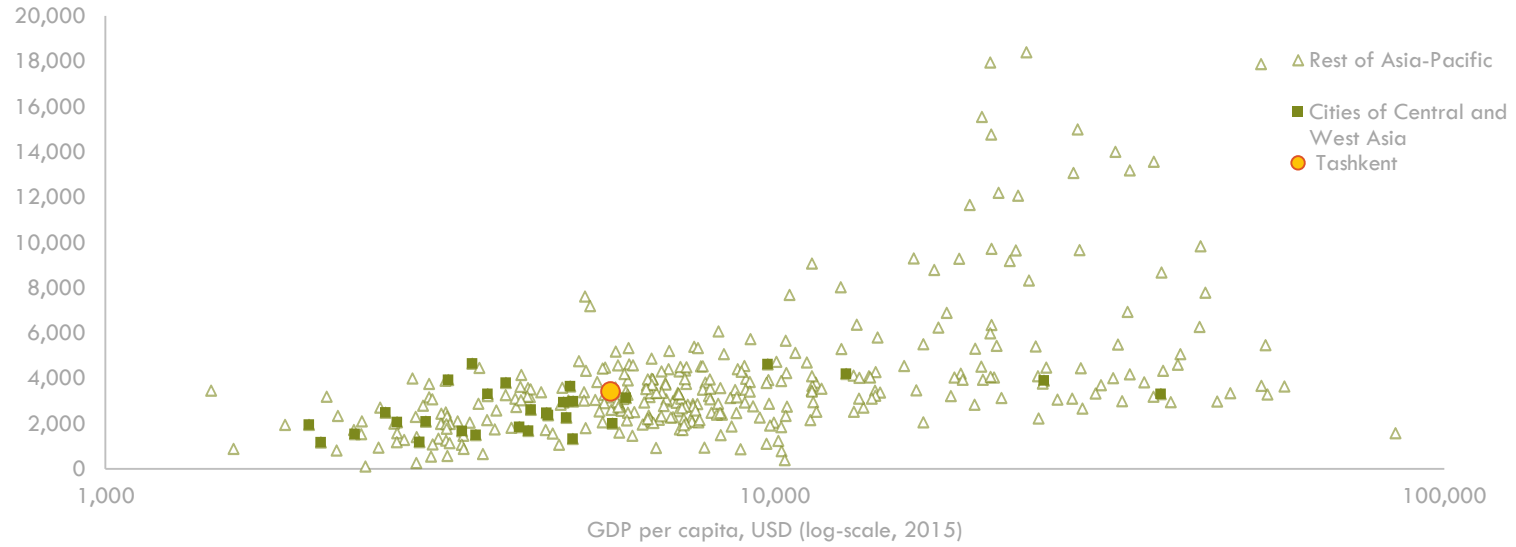
Approximate transit coverage 14% of land area

(2015) (ITDP and GHS)

Transport Activity and Services

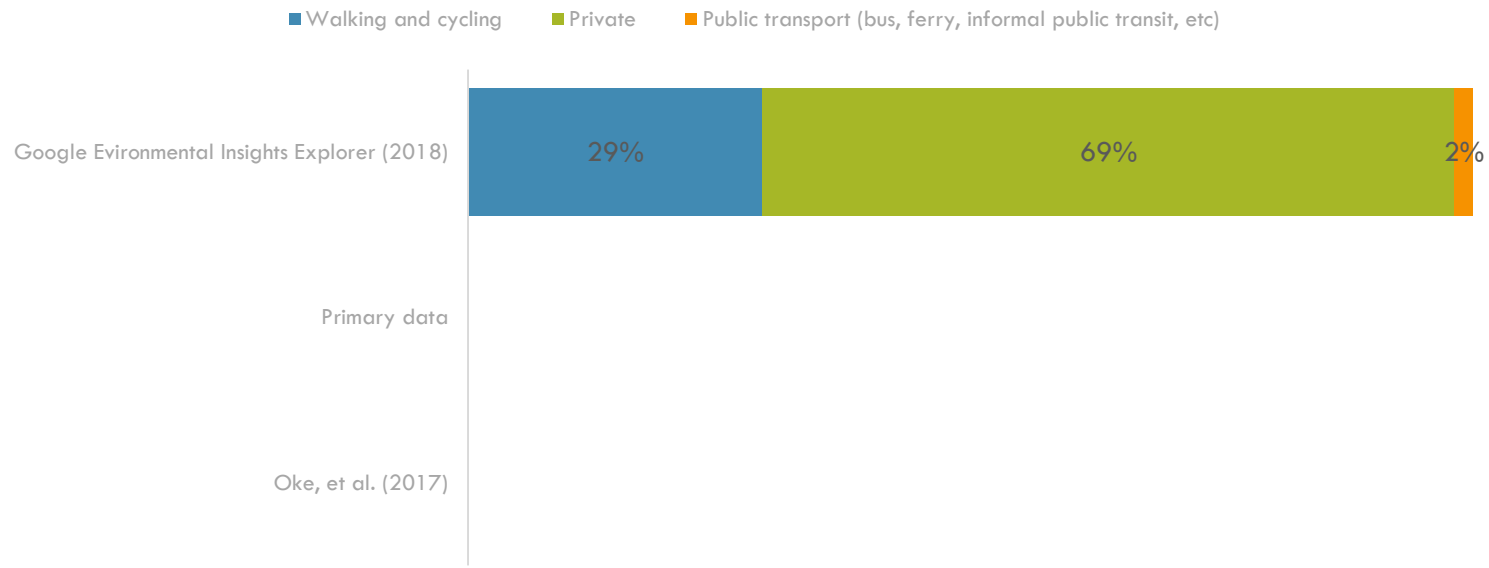
VKT per capita

Vehicle-kilometer per capita (2022) (ClimateTrace)



Trips Mode share (b)

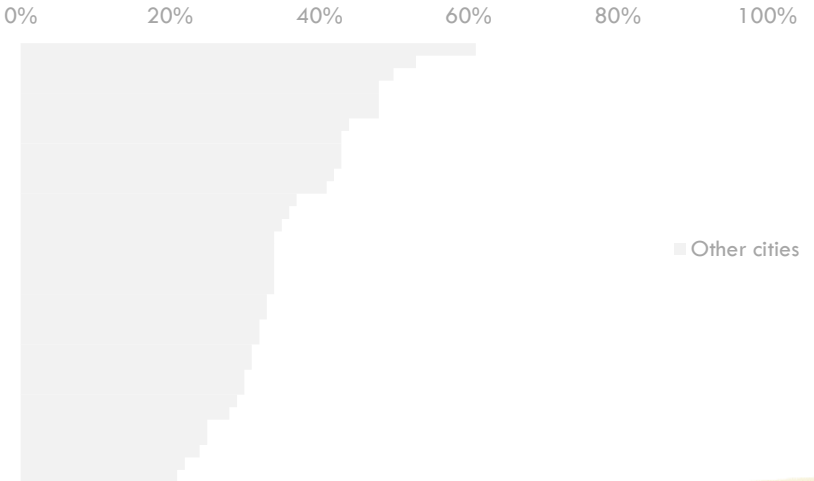
Share, %



(b) The methodologies used for mode share assessments vary across different studies, making direct comparison of results inadvisable. Specifically, the Google Environmental Insights Explorer derives its assessments from mobile data analysis, while primary data studies typically rely on survey-based approaches. In contrast, the study by Oke et al. utilizes a combination of secondary data sources.

Congestion level

Percent increased travel time vs. uncongested conditions (2021) (TomTom)



Metro ridership

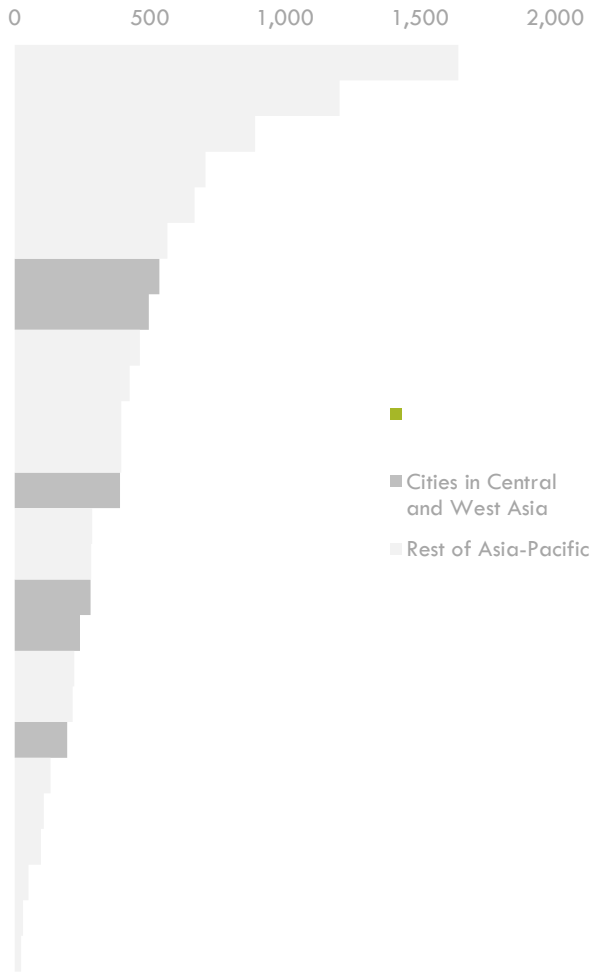
n.d.

Congestion ranking

n.d.

Vehicle motorization

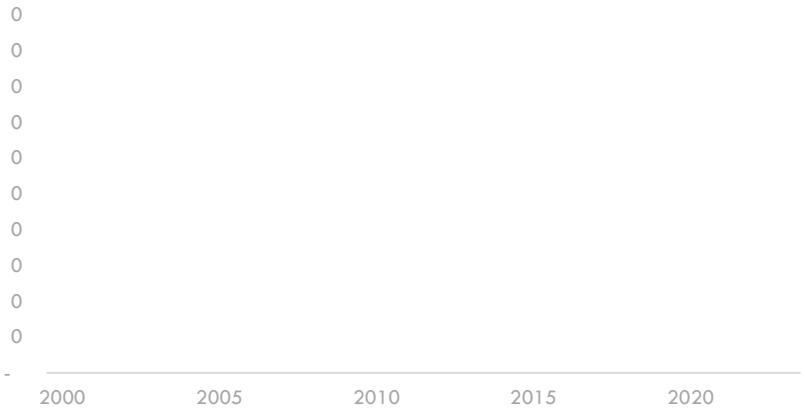
Vehicles per thousand population (Primary data)



(c) It should be noted that, in most cases, scrapped vehicles are not de-registered, which may result in slightly inflated numbers.

Vehicles registered (c)

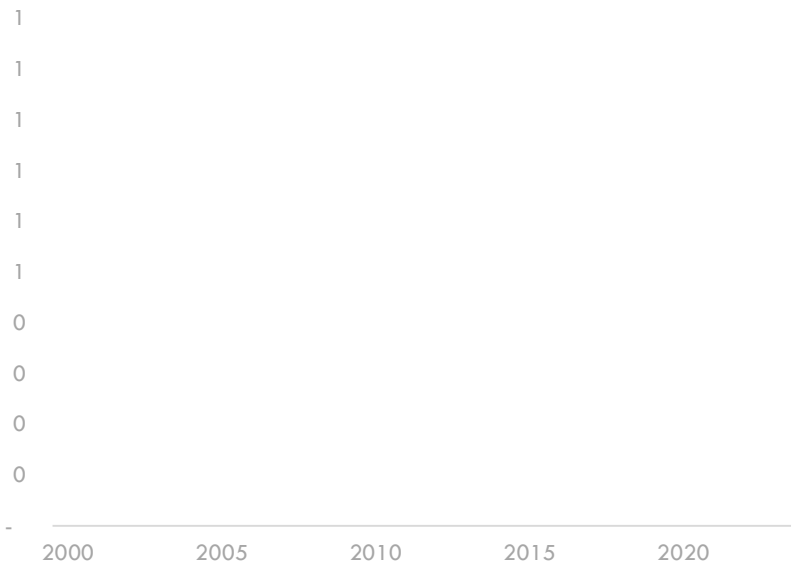
Thousand vehicles (Primary data)



Vehicles considered: no further information

Bus fleet (operational)

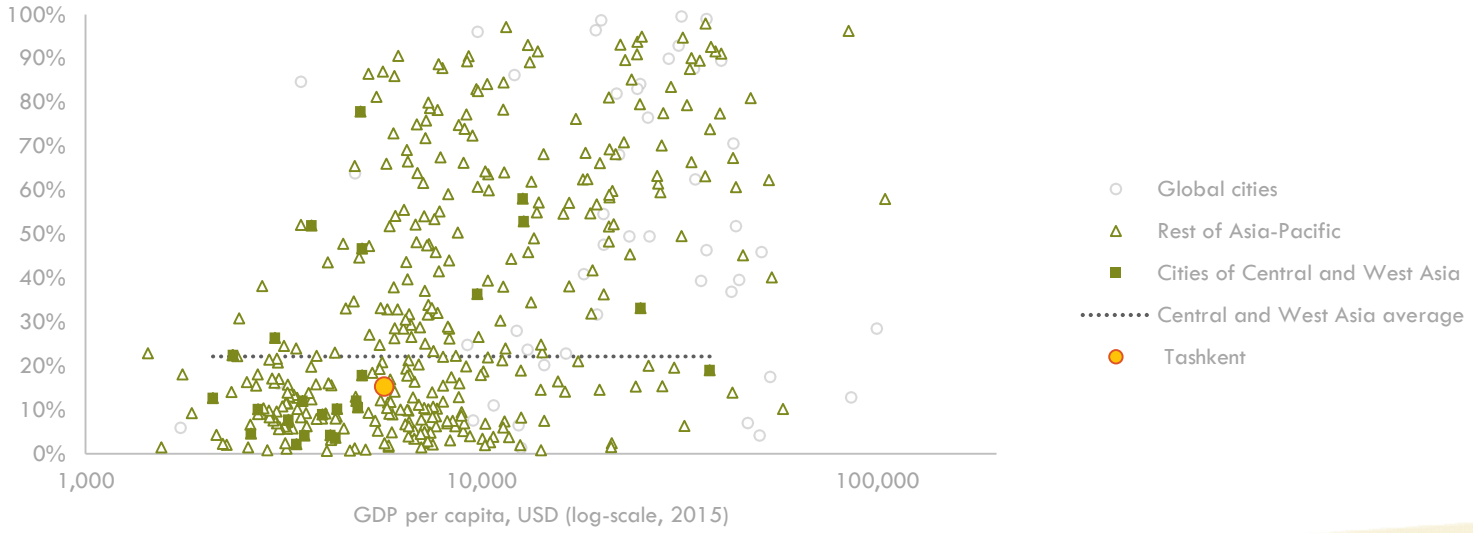
Bus (and other public transport) fleet (Primary data)



Urban Access

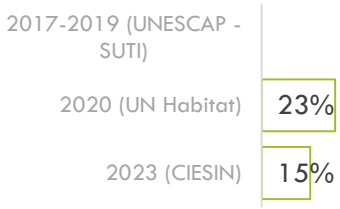
Access to urban public transport

Share of population with convenient access to public transport (2023) (CIESIN)



Access to urban public transport (d) - by source

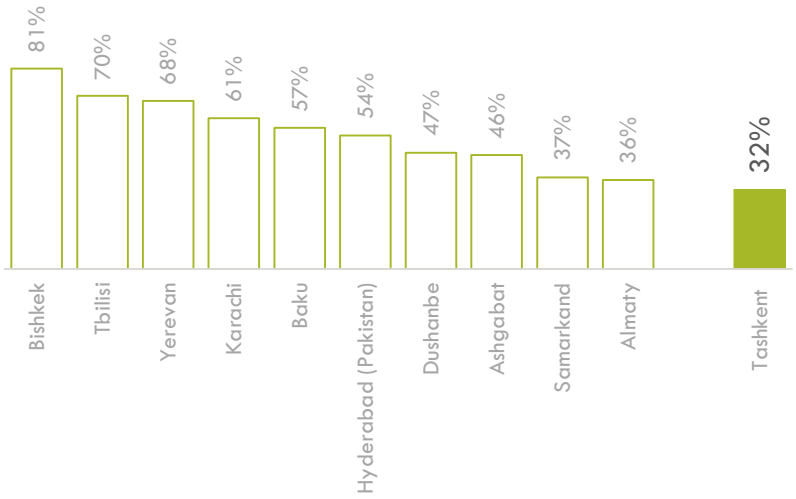
Share of population with convenient access to public transport



(d) "Access to urban public transport" is computed as share of population who live within a walking distance (along a street network) of 500m to a low capacity public transport system (eg bus, tram) and 1000m to a high capacity public transport system (eg trains, ferries, etc). Only public transport stops which are mapped are included in the analysis which may include both formal and informal stops. Many cities (mostly in the developing countries) have informal public transport systems which are not fully mapped - meaning that they may record higher levels of access to public transport than reported in this dataset.

People near services (both healthcare and schools) (e)

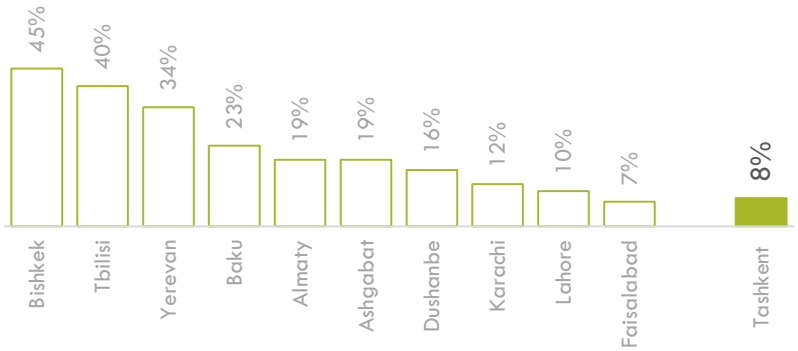
(Share of population) vs. highest 10 cities in Central and West Asia (2020) (ITDP)



(e) People Near Services measures the percentage of the city's population living within a 1km walk of both healthcare and education. These services are especially vital for babies, toddlers, and their caregivers, who should be able to reach them on foot.

People near car-free places (f)

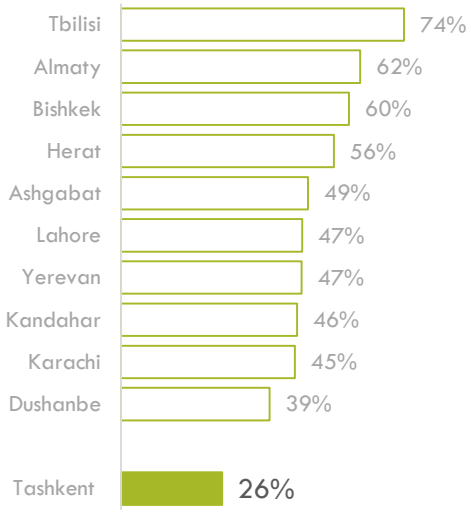
(Share of population) vs. highest 10 cities in Central and West Asia (2020) (ITDP)



(f) Percentage of the city's population that lives within 100m of a car-free place. These car-free places include pedestrian-only alleyways, nature trails, playgrounds, pedestrianized squares, and anywhere else that is not used by cars and trucks (except, in some cases, emergency vehicles).

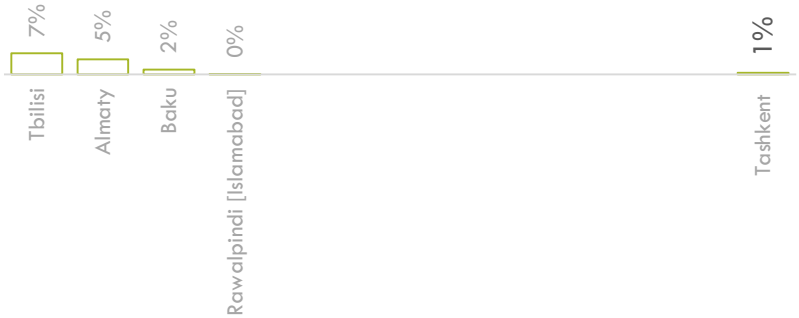
People near open public space

(Share of population) vs. highest 10 cities in Central and West Asia (2020) (UN Habitat)



People near protected bikelanes

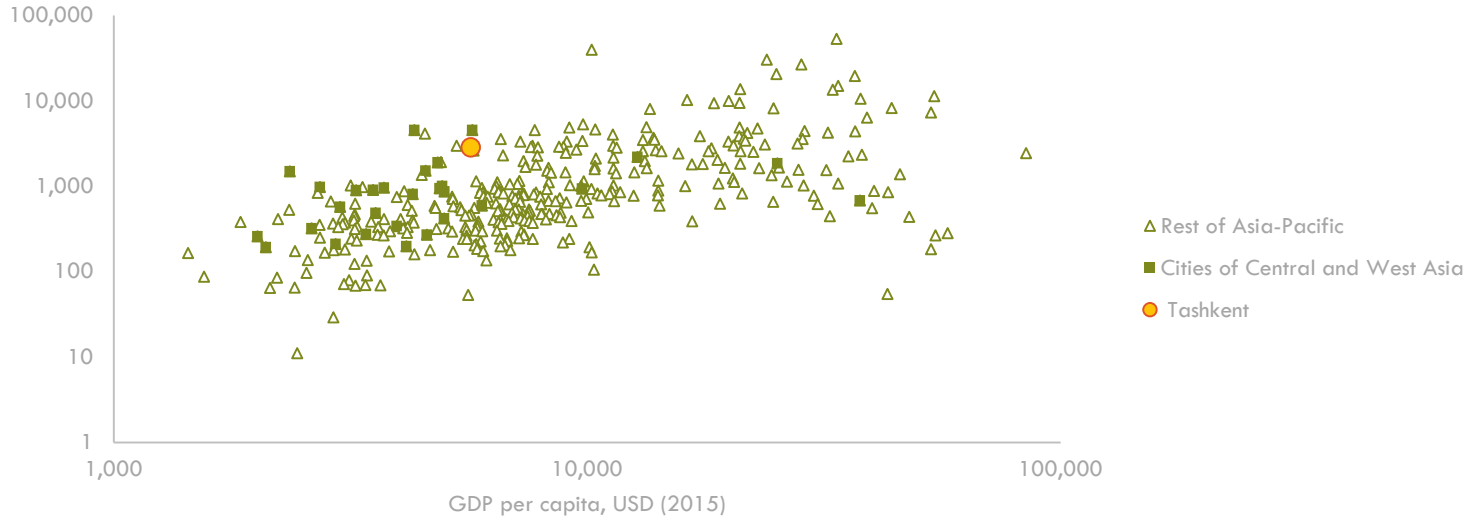
(Share of population) vs. highest 10 cities in Central and West Asia (2020) (ITDP)



Transport externalities

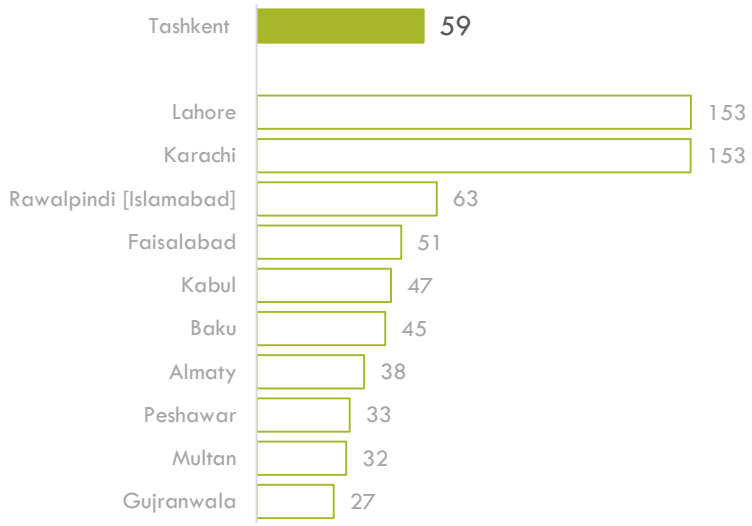
Road transport - CO2 emissions

Thousand tonnes (2022) (ClimateTrace)



Road transport - N2O emissions

Tonnes (2022) vs. highest 10 cities in Central and West Asia (ClimateTrace)

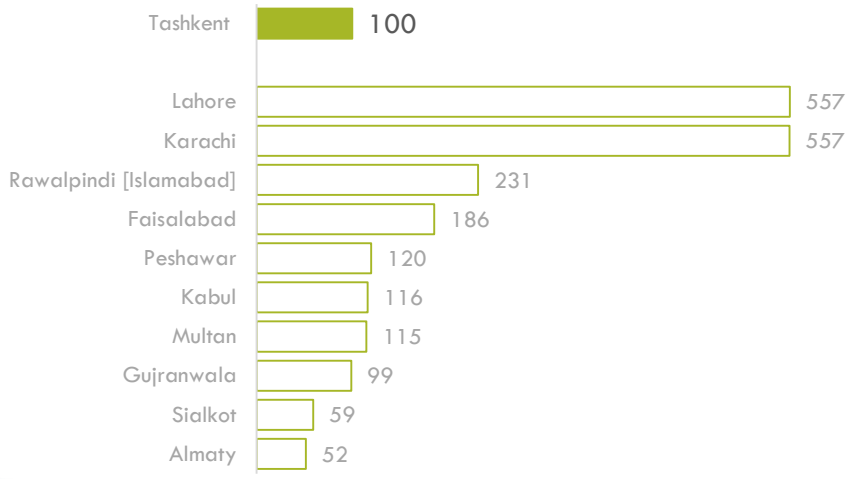


Population exposure to disasters

Share of population (2015) (GHS)

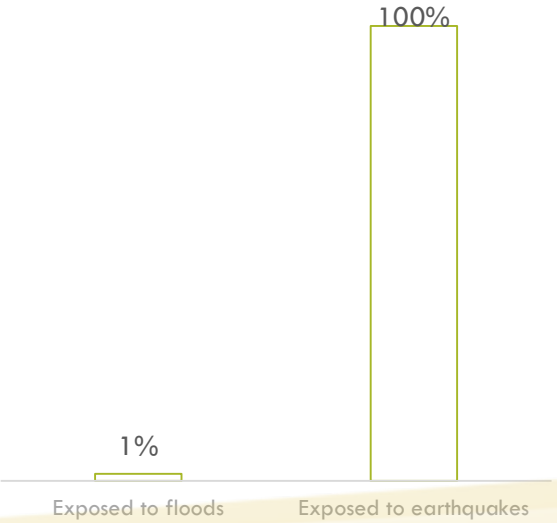
Road transport - CH4 emissions

Tonnes (2022) vs. highest 10 cities in Central and West Asia (ClimateTrace)



Urban built-up area exposure to disasters

Share of urban area (2020) (GHS)

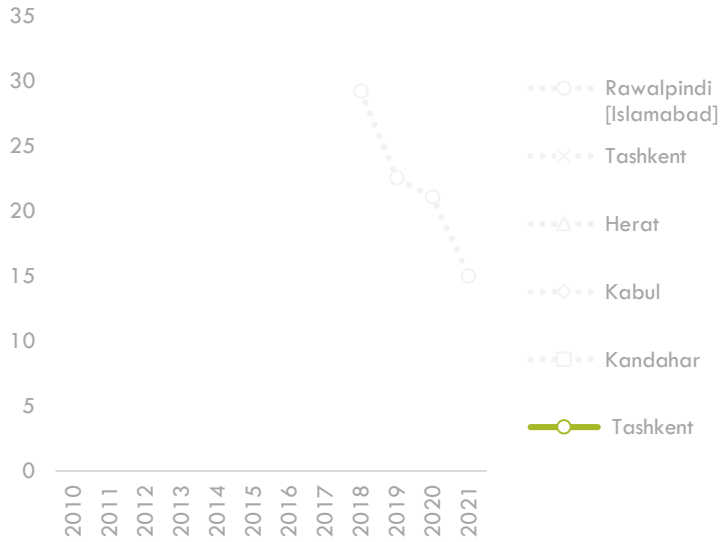


Transport PM 2.5 emissions

(GHS)

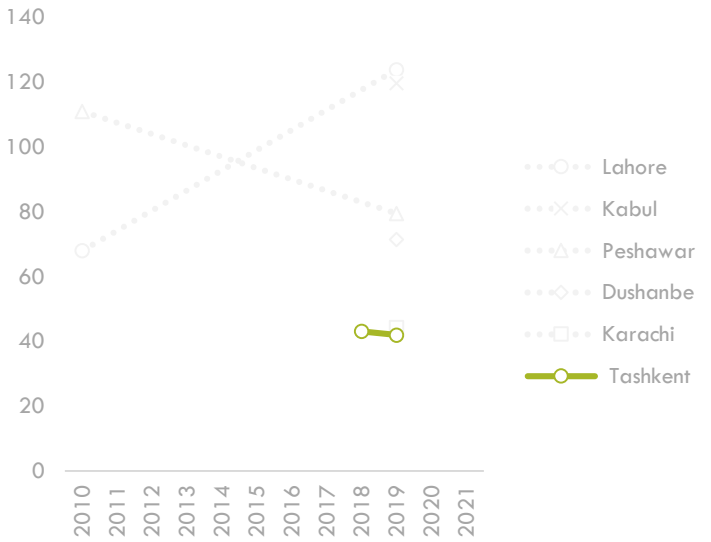
NO2 concentration

ug/m3 (vs. highest 5 cities in Central and West Asia) (WHO)



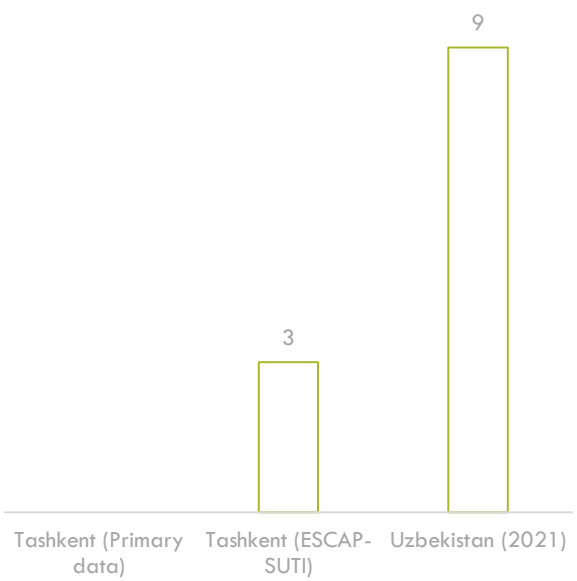
PM 2.5 concentration

ug/m3 (vs. highest 5 cities in Central and West Asia) (WHO)



Road crash fatality rate

Deaths per 100,000 population



Road crash fatality rate

Deaths per 100,000 population (Primary data)

Transport related Indices

Container port performance index

Index is resultant of the sum of a weighted average of indices for each of the five vessel sizes: feeders (<1,500 TEUs), intra-regional (1,500–5,000 TEUs), intermediate (5,000–8,500 TEUs), neo-Panamax (8,500–13,500 TEUs), and ultra-large container carriers (>13,500 TEU)

Tashkent n.d.

Cities in Motion index ranking

The Cities in Motion Index (CIMI) is a composite indicator evaluating cities across nine dimensions—governance, urban planning, technology, environment, international profile, social cohesion, human capital, mobility, and economy—focusing on sustainability and quality of life. It uses a weighted aggregation model to combine sub-indicators for a holistic assessment of urban performance

Tashkent n.d.

Critical Infrastructures Spatial Index for the transportation sector

CISI is an index that spatially explicit indicates the coverage or lack of transport infrastructure. The CISI is expressed in a dimensionless value ranging between 0 (no CI intensity) and 1 (highest CI intensity). The index aggregates high resolution geospatial information on multiple CI assets per CI system

Tashkent 0.06/1.00

(2020) (GHS)

SUTI Geometric Mean

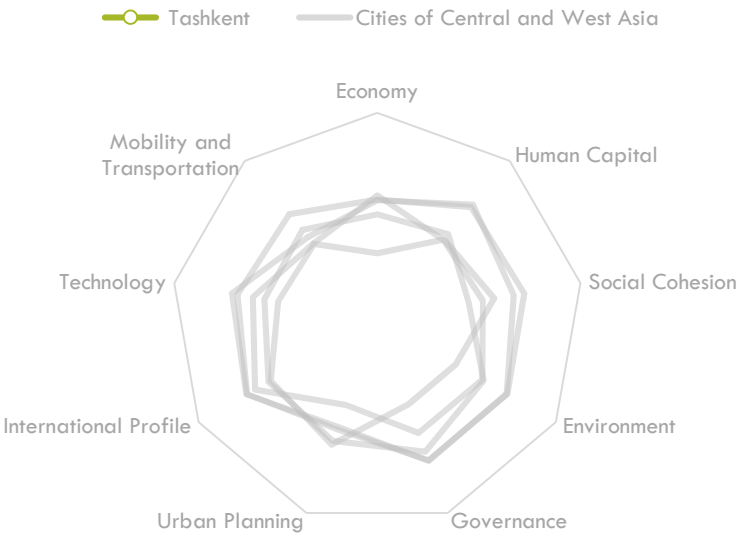
The geometric mean in the Sustainable Urban Transport Index (SUTI) by UNESCAP is a mathematical approach to aggregate scores across its 10 sub-indicators, including public transport ridership, safety, affordability, air quality, and access to transport

Tashkent 63 score out of 100

(2024) (UNESCAP - SUTI)

Cities in Motion index ranking by subcomponent

Ranking (vs. other Cities of Central and West Asia) (2024) (IESE)



Transport relevant policy documents

Year published	Document name
2021	Tashkent - Accelerating Investments in Low Emission Vehicles (TAILEV)
2022	draft master plan of Tashkent until 2045

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