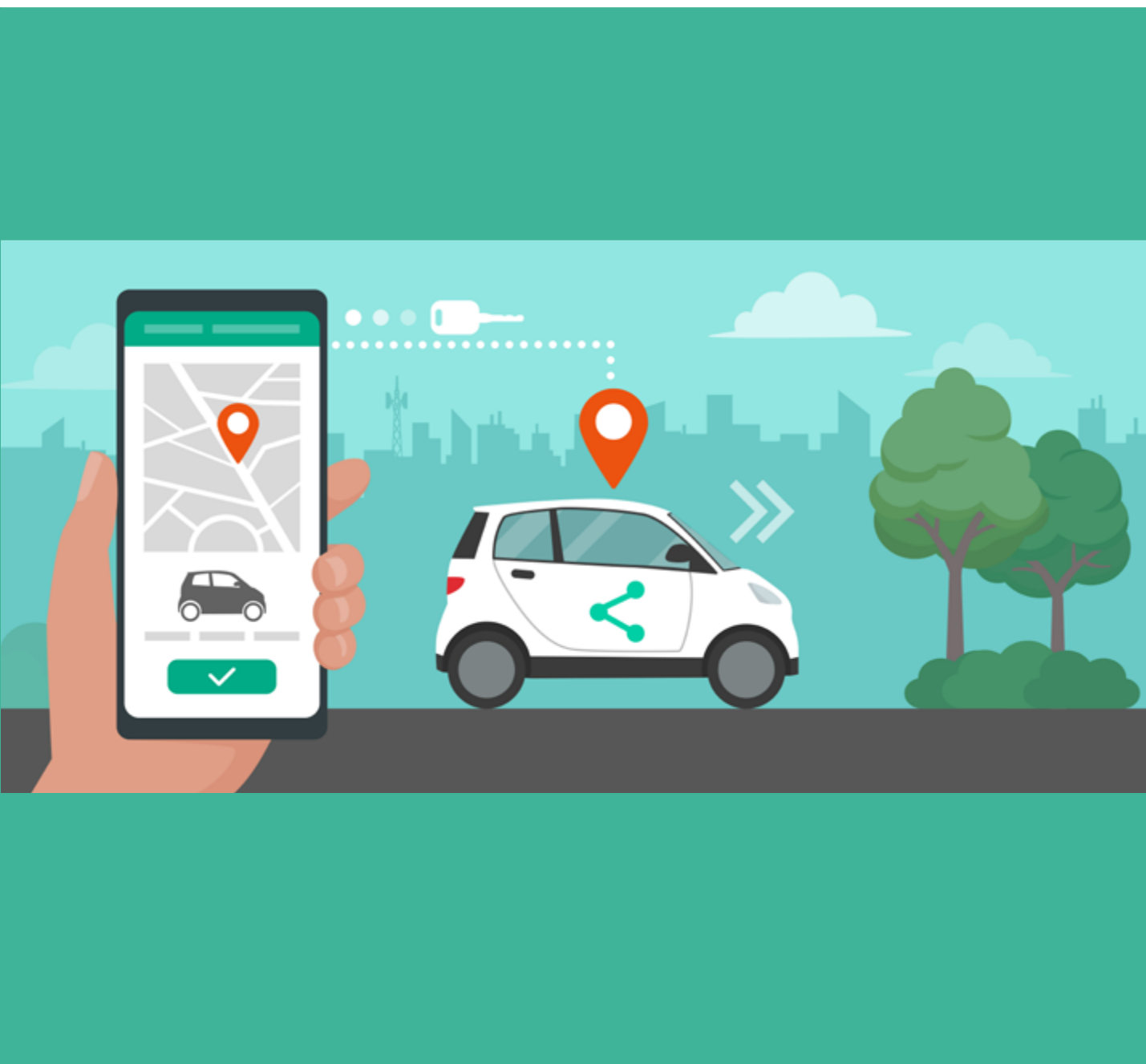


Developing sustainable urban mobility policy on car sharing and carpooling initiatives Kyrgyzstan



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Kyrgyzstan



United Nations

Geneva, 2023

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This publication is issued in English and Russian.

United Nations publication issued by the United Nations Economic Commission for Europe.

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ECE/TRANS/339

eISBN: 978-92-1-002862-2

UNITED NATIONS ECONOMIC COMMISSION FOR EUROPE (UNECE)

The United Nations Economic Commission for Europe (UNECE) is one of the five United Nations regional commissions, administered by the Economic and Social Council (ECOSOC). It was established in 1947 with the mandate to help rebuild post-war Europe, develop economic activity and strengthen economic relations among European countries, and between Europe and the rest of the world. During the Cold War, UNECE served as a unique forum for economic dialogue and cooperation between East and West. Despite the complexity of this period, significant achievements were made, with consensus reached on numerous harmonization and standardization agreements.

In the post-Cold War era, UNECE acquired not only many new member States, but also new functions. Since the early 1990s the organization has focused on assisting the countries of Central and Eastern Europe, Caucasus and Central Asia with their transition process and their integration into the global economy.

Today, UNECE supports its 56 member States in Europe, the Caucasus, Central Asia and North America in the implementation of the 2030 Agenda for Sustainable Development and its Sustainable Development Goals (SDGs). UNECE provides a multilateral platform for policy dialogue, the development of international legal instruments, norms and standards, the exchange of best practices and economic and technical expertise, as well as technical cooperation for countries with economies in transition.

The norms, standards and conventions developed at UNECE in the areas of environment, transport, trade, statistics, energy, forestry, housing and land management, innovation or population, offer practical tools to improve people's daily lives. Many are used worldwide, and a number of countries from outside the region participate in UNECE's work.

UNECE's multisectoral approach helps countries to tackle the interconnected challenges of sustainable development in an integrated manner, with a transboundary focus that helps devise solutions to shared challenges. With its unique convening power, UNECE fosters cooperation among all stakeholders at the country and regional levels.

TRANSPORT IN UNECE

Today, UNECE services 59 United Nations inland transport conventions. Several of the Conventions are global either by design or because their success has caused them to grow beyond the UNECE region. In addition to negotiating the amendments to existing legal instruments, UNECE has been active in facilitating new legal instruments. Its normative activities are enhanced with developing methodologies, guidelines, and definitions on subjects such as transport planning, data collection and the collection of transport statistics. UNECE's work on transport is governed by the Inland Transport Committee (ITC) and its 20 Working Parties, which are in turn supported by more than 40 formal and informal expert groups and in cooperation with 11 treaty bodies (Administrative Committees). Annual sessions of ITC are the key moments of this comprehensive intergovernmental work, when the results from all subsidiary bodies, as well as the UNECE Sustainable Transport Division, are presented to ITC members and contracting parties.

In addition to servicing ITC and its subsidiary bodies, the Division also services other intergovernmental bodies including the ECOSOC Committee of Experts on the Transport of Dangerous Goods and on the Globally Harmonized System of Classification and Labelling of Chemicals, as well as 11 treaty bodies of United Nations legal instruments and the TIR Executive Board. In cooperation with UNESCAP, UNECE Sustainable Transport Division supports the United Nations Special Programme for the Economies of Central Asia (SPECA). It also annually alternates with UNESCAP as the secretariat to the SPECA Thematic Working Group on Sustainable Transport, Transit and Connectivity. In cooperation with the UNECE Environment Division and the World Health Organization (WHO) Europe, the Division services the Transport, Health and Environment Pan-European Programme (THE PEP). It ensures the management and oversight of the Trans-European North-South Motorway (TEM) and the Trans-European Railway (TER) projects. The Division supports the accession and implementation of the UN legal instruments through policy dialogues, technical assistance, and analytical activities with the priority of promoting regional and subregional cooperation and capacity-building. Finally, since 2015, UNECE hosts the secretariat of the United Nations Secretary-General's Special Envoy for Road Safety and since 2018 the secretariat of the United Nations Road Safety Fund (UNRSF).

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Introduction

This publication has been prepared in the framework of the project on “Strengthening the capacity of Central Asian countries to develop sustainable urban mobility policy on car sharing and carpooling initiatives”. The goal of this project is to improve understanding by national policy makers in Central Asia of the basic requirements for implementing car sharing and carpooling initiative and build the capacity of national and local policy makers in Central Asia to develop and implement sustainable transport policies focused on car sharing and carpooling initiatives. It covers more specifically Kazakhstan, Kyrgyzstan, Tajikistan.

This publication targets policy makers from Kyrgyzstan seeking to set up and regulate such initiatives at the national and local levels.

Definitions and concepts

Sustainable development is a core component of modern international policies aiming at solving the problem of urbanization and covering economic and social development, security, and environmental protection. An important trend in the sustainable development of urban transport infrastructure is the collective use of road network, where carpooling and car sharing can complement public transport.

Definitions

Car sharing and carpooling are key examples of the sharing economy, based on the idea that it is more convenient to pay for temporary access to a product through a marketplace than to own the product. For those citizens who prefer not to own expensive assets in order to avoid liability and costs, the use of sharing allows them to access all the benefits of technology without the cost of owning and maintaining.

Car sharing is a service that provides members with access to an automobile for intervals of less than a day. Major car sharing business models include traditional or round-trip, one-way or free-floating, and peer-to-peer (P2P), which allows car owners to rent them to other private users.¹ Another model of car sharing is stationary car sharing which provides only round trips at fixed stations. These services can be provided by specialized companies (most often for intracity and/or short trips) or individuals. This model of car rental is convenient for example for occasional use of a vehicle or when one needs a car that differs from body type and load capacity from the one usually used. Car sharing is one of the global directions in the development of the sharing economy, when the population avoids acquiring goods in ownership in order not to bear responsibility and costs but continues to have access to the benefits they can provide, through a shared usage. In 2016, car sharing organizations were implemented in more than 2,095 cities around the world.

Carpooling involves adding passengers to a private trip in which driver and passengers share a destination. Such an arrangement provides additional transportation options for riders while allowing drivers to fill otherwise empty seats in their vehicles.

Depending on the method of planning a joint trip, the following types of carpooling are distinguished:

- Classic – as a rule, a long (from 100 km) trip, planned in advance (from 1 day to several months)
- Dynamic – movement in urban space for short distances (1-100 km) in the presence of alternatives (by own car, public transport, taxi, bicycle or on foot)
- Regular – participants, route and schedule of the trip are constant.

¹ “Strengthening the capacity of Central Asian countries to develop sustainable urban mobility policy on car sharing and carpooling initiatives”, UNECE, 2020. <https://unece.org/transport/publications/strengthening-capacity-central-asian-countries-develop-sustainable-urban>

Car sharing models:

Free-Floating allows users to rent and return a car to any location within a defined territory. To create a free-floating car sharing business model, companies need to take into account the following factors:

1. Geographical location of the population and density of the districts in order to attract the required number of customers;
2. Pricing policy: setting the price per minute;
3. Redemption from the city authorities of parking spaces in paid parking lots;
4. Ensuring the required number of cars for rent.

Station-to-Station includes fixed car rental locations and round trips ending at the starting point of the car rental.

How car sharing works: an example from a neighbouring country, Kazakhstan

In order to use car sharing services, the customer must install a mobile application on his smartphone, register in the service: enter his/her mobile phone contact number and send the documents necessary for its identification (most often, an ID photo sent using the mobile application, driver's license on the front and back, bank card information).

If the customer meets the requirements stipulated by the car sharing agreement, the operator provides access to use the service. The car sharing operator provides the car personally to the customer for temporary possession and use, without the provision of driving services. The customer accepts the car and pays the rent and the cost of possible other services provided by the operator. The contract can only be concluded with a driver over 23 years old and with at least 3 years of driving experience. The agreement often establishes some restrictions regarding the use of the car which can include the prohibition from providing taxi services, subleasing, transporting explosive, flammable, oversized, heavy and poisonous goods, etc. To find a car, the customer checks on the mobile application the location of cars available for booking. Once the car is booked, the customer is responsible for checking the presence of documents, technical equipment, first aid kit, spare wheel, jack, set of keys, fire extinguisher and a warning triangle, as well as for conducting an external and internal inspection of the car. Once these checking are done, the customer confirms in the mobile application the acceptance of the selected car. To end the car rental, the customer clicks the "End rental" button in the mobile application. The customer then receives a message from the car sharing operator indicating the cost of the journey, taking into account the time of the trip. The cost of the journey is debited from the customer's bank card (including prepayment). Fuel costs can be paid using the fuel card provided in the car or paid by the customer with a bank card. Depending on the tariff and conditions, the cost of using car sharing vehicles may include placing cars in city paid parking lots and parking lots at airports.

Success factors for car sharing business models

The general methodology for determining the most effective car sharing models are represented in table 1. This table represents the study in stages, reflects the development of approaches that together form the methodology for implementing car sharing methods:

Table 1 Car sharing modes analysis²

Territory of use			Vehicle type			Fee structure			Parking type		
FF	S	P2P	FF	S	P2P	FF	S	P2P	FF	S	P2P
City centre			Small cars			Time-based			Municipal parking		
+		+	+		+	+			+		
City boundaries			Middle class type			Distance-based			Commercial		
+	+	+	+	+	+		+			+	
Regions			Freight			Fixed rate			Private territory		
	+	+		+	+	+		+			+

FF – Free floating; S – Stationary; P2P – Peer to Peer

Context in Kyrgyzstan - National level

Internal (interregional) migration of the population of the Kyrgyz Republic is characterized by a trend towards the Chui region and the city of Bishkek. Bishkek remains the center of attraction for the population at the national scale according to the Macroeconomic indicators presented in table 2. Its share in the total positive migration growth is 64.4 per cent.³

The main reason for the change of permanent residence by residents is the search for work. In this regard, the population of working age actively participates in interregional flows, most of which live in the suburbs of the capital and do not have official city registration, which limits their access to medical and social services in Bishkek. The growth of the urban population entails a burden on the transport infrastructure of the capital and requires the creation of favourable conditions to ensure comfortable and sustainable trips for the population of Bishkek.

However, the concepts of “carsharing” and “carpooling” are absent in national and local legislation.

The air quality issues in Kyrgyzstan are also illustrating the current difficult environmental context, which car sharing services could improve by lowering particles emissions. Even if air pollution in Kyrgyzstan is mainly due to the coal used for residential heating, transport remains one of the main factors impacting air quality. The absence of efficient regulation for vehicle technical inspection and maintenance, combined with the ageing fleet, contribute to the emission of harmful substances. According to a recent study, more than 70 per cent of the passenger cars in the Kyrgyz market are older than 10 years, and that the average age of passenger cars in the country is estimated to be just over 16 years.⁴

² Car Sharing in Europe Business Models, National Variations and Upcoming Disruptions, Deloitte. <https://www2.deloitte.com/content/dam/Deloitte/de/Documents/consumer-industrial-products/CIP-Automotive-Car-Sharing-in-Europe.pdf>.

³ According to the Program of Socio-Economic Development of the city of Bishkek for 2023 and the Forecast for 2024-2025, approved by the Resolution of the Bishkek City Council of 26 May 2022, No. 31.

⁴ “Putting the foot down: Accelerating EV uptake in Kyrgyzstan”, <https://doi.org/10.1016/j.tranpol.2022.12.007>



Mini-bus in Bishkek

Context at the local level: the case of Bishkek

There are no car sharing services in the city of Bishkek. Only bikes and electric scooters are available through sharing services.

Within the framework of a UNECE advisory mission meeting on the project “Strengthening the capacity of Central Asian countries to develop sustainable urban mobility policy on car sharing and carpooling initiatives” which took place in May 2022, at the Iskhak Razzakov Kyrgyz State Technical University students agree that there is a topicality for car sharing and carpooling services among the population. One of the factors in favor of using car sharing and carpooling is the unreliable schedule of routes and the insufficient level of public transport service, which does not cover most areas adjacent to the city of Bishkek. Another important factor contributing to the development of car sharing is the toll parking in the city of Bishkek, which significantly restrains the drivers ready to use their personal car.

Air pollution in the city of Bishkek turns out to be particularly high in comparison with other comparable cities of the world where stations of the World Air Quality project are deployed.

In December 2021, Bishkek ranked first in the world air pollution ranking. The main air pollutant in Bishkek is PM_{2.5}: it includes a mixture of particles of dust, ash, soot, as well as sulphates and nitrates in suspension in the air. On 11 December 2022, Bishkek again topped the rating of cities with the most polluted air: the status of air in the city is “very harmful”, which is life-threatening.⁵ According to this rating, the air quality index in the city of Bishkek is 288, and measurements of the concentration of fine particles of PM_{2.5} showed 233.7 micrograms/m³. This is 46.7 times higher than the WHO recommended average annual air quality.

⁵ <https://rus.azattyk.org/a/32171527.html> (in Russian).

As of 1 December 2023, 410 078 cars were registered in the city of Bishkek (table 2).⁶

Table 2 Number of registered vehicles on the territory of the city of Bishkek

N°	Title	Physical entity	Legal entity	Total
1	Bus	9 869	2 426	12 295
2	Cargo	31 965	10 767	42 732
3	Cargo-passenger	1 746	335	2 081
4	Passenger	317 755	14 451	332 206
5	Moto	2 338	157	2 495
6	Semi-trailer	3 941	2 200	6 141
7	Trailer	2 387	573	2 960
8	Special	3 27	2 186	2 513
9	Self-propelled technological cars	4 621	2 034	6 655
Total		374 949	35 129	410 078

Urban transport in Bishkek: analysis of the current situation in the field of public transport

Passenger transportation in the city of Bishkek is carried out by the municipal enterprises “Bishkek Trolleybus Department” and “Bishkek Passenger Motor Transport Enterprise”, as well as by private companies (minibus routes).

Currently, the main transport modes in Bishkek consist in:⁷

- 12 municipal bus routes (160 bus per day on average);
- 11 trolleybus routes (125-130 trolleybus per day);
- 8 bus routes served by a private company (120 to 140 bus per day);
- 104 minibus routes, of which 25 are municipal (1 500 to 1 700 minibuses of small capacity (marshrutkas)).

⁶ According to the data of the state institution “Unaa” under the Ministry of Internal Affairs of the Kyrgyz Republic.

⁷ According to the statistics of the Bishkek City Mayor’s Office.



Trolleybus in Bishkek

To fully provide the city with passenger transport, an additional 1,500 units of large-capacity buses running on a gas-powered or electric motor are needed.

Traffic in Bishkek



Urban transport in Bishkek: perspectives of evolution

Plans for acquisitions related to urban transport for the city of Bishkek⁸

- **Through the Asian Development Bank (ADB)**

Within the framework of this project, it is planned to allocate a concessional loan from the ADB of USD 25 million and a grant for a maximum amount of USD 25.65 million. The loan is granted for 32 years, including an 8-year grace period, at an interest rate of 1 per cent per year during the grace period, and 1.5 per cent per year for the remainder of the term. Mitigation of the effects of climate change is estimated at USD 59.55 million, of which ADB will finance 84.9 per cent.⁹

The co-financing provided by the State will amount to approximately USD 8.9 million, in the form of tax exemption and customs duties payable under the project.

⁸ According to the Bishkek City Mayor's Office.

⁹ According to the Bishkek City Mayor's Office.

On 2 November 2022, a contract was signed for the supply of 120 units of electric buses, it is also planned to reconstruct 2 trolleybus depots and install 85 electric charging devices.

- **Through the European Bank for Development and Reconstruction (EBRD)**

On 16 September 2021, the Kyrgyz Republic and the European Bank for Reconstruction and Development concluded a loan agreement in the amount of EUR 25 million, as well as a Grant Agreement in the amount of EUR 8 million to assist in financing the projects for buses named “Green Cities 2”, “Window 2” in the city of Bishkek.

On 18 August 2022, Municipal Enterprise “Bishkek Passenger Motor Transport Enterprise” signed a contract for the purchase of 124 of 10.5-meter gas-powered buses. In May 2023, it is planned to announce a tender for the purchase of other 12.5-meter buses for an amount of EUR 12 million, as well as for the reconstruction of a bus depot.

- **From the local budget**

For 2022, the local budget provisioned USD 11 million for the purchase of new urban passenger buses, with modern design and environmentally friendly fuel.

The Bishkek City Mayor’s Office decided to conclude a direct contract with the manufacturer, for the purchase of 120 buses which are now operating in the capital since January 2023.

The Bishkek Mayor’s Office also plans to launch a “green taxi” with the creation of an appropriate infrastructure for the installation of electric charging stations in the city of Bishkek. As part of this project, 200 electric vehicles will run around the city and at least 50 electric charging stations will be installed.

The potential of car sharing and carpooling to reduce CO₂ emissions

Car sharing and carpooling have the same overall objective to reduce car ownership or, in case of countries/cities where car ownership is low, to limit the growth of car ownership, by offering a car mobility service for those that need it, without the need to purchase and own an individual vehicle.

This objective of lower car ownership is achieved through two different mechanisms:

1. For carpooling, the average load factor (number of passengers per vehicle) of the vehicle is increased, with more people on-board the vehicle for any given trip.
2. For car sharing, the car is used more frequently, as one car is shared among different people that have access to it; the annual distance covered by the vehicle is increased.

Car sharing and car-pooling have several environmental and other types of co-benefits such as:

- Reduced congestion: with less cars on the road, road infrastructure is saturated more slowly, easing the flow of cars,
- Lower natural resources needed to build vehicles: material extraction is decreased with less vehicles being individually owned,
- Cost savings: owning individual vehicle is expensive, because of the costs associated with it (acquisition cost and all recurrent costs such as insurance, maintenance, parking, energy that are to partially or fully exempted when subscribing to car sharing or carpooling schemes).

Deployment and user-adoption of car sharing and carpooling schemes in a city or a country will impact the transport mode share in the given region; the potential CO₂ mitigation will depend on which modes of transport are being displaced for users of carpooling and car sharing schemes, and the importance of induced demand (trip that would not have been made without the car sharing/carpooling system).

Quantifying the CO₂ emissions reduction potential of car sharing schemes in Kyrgyzstan

Kyrgyzstan has a vehicle ownership of around 220 vehicles per 1,000 people and very limited data availability regarding the actual mode share.

This lack of data prevents the accurate calculation of the potential CO₂ emission reduction of a shift toward carpooling and car sharing in the countries and cities covered by this study. The study below is only for illustration purposes and does not necessarily reflect the situation in the country.

Nevertheless, following the available literature regarding mode shift and basic calculation using For Future Inland Transport Systems (ForFITS) methodology, some order of magnitude can be shown to indicate the likely potential for CO₂ emissions reduction for carpooling and car sharing schemes can be assessed.

1. Impact of car sharing schemes

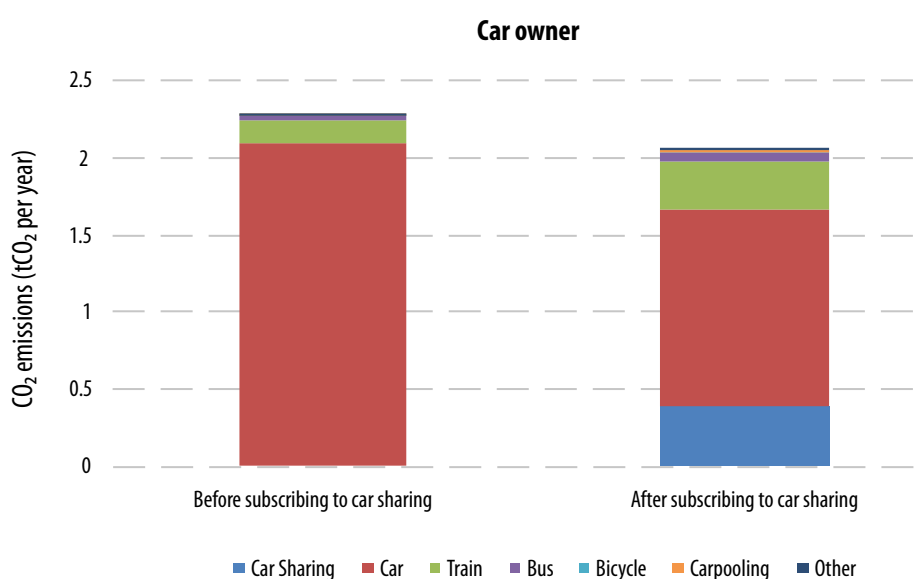
(a) Literature review

To quantify the CO₂ impacts of the private car and car sharing schemes, assumptions need to be made on the modal shift before and after the latter has been deployed, its level of adoption and the carbon intensity of each mode.

The data regarding the transport mode share in Kyrgyzstan is limited. It shows a wide spectrum of modal share at the country level.

Available literature, such as Martin, E., Shaheen, S. (2016) or L. Amatuni et al. (2020) covers cities in developed countries, where car ownership is already high. Car-owning households that subscribe to a car sharing scheme decrease their annual Greenhouse Gas (GHG) emissions by around 20 per cent (figure 1). Their CO₂ emissions decrease as they use more often lower carbon transport modes such as public transport and active modes (walking and cycling) (table 3), keeping overall annual mobility constant.

Figure 1 CO₂ emissions from transportation of average household – Before subscribing to car sharing/after subscribing to car sharing scheme



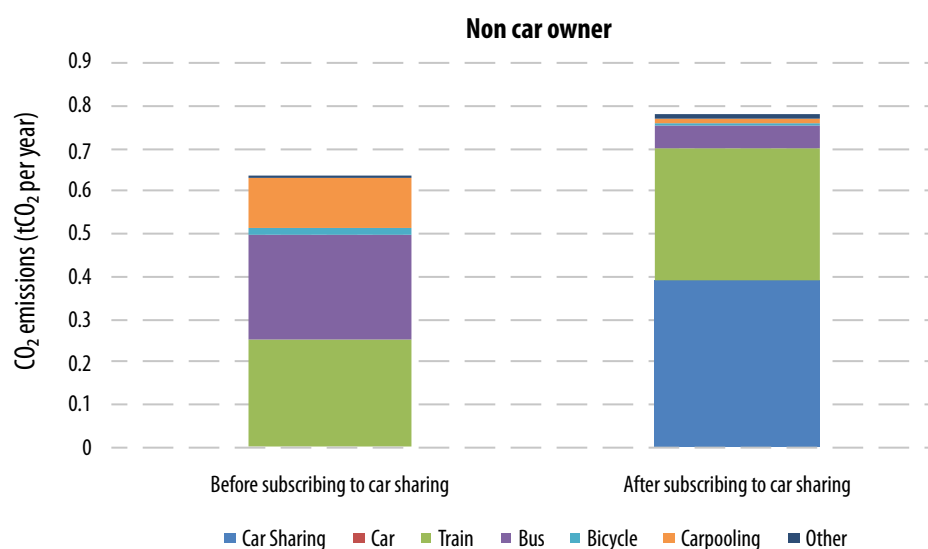
Source: Martin, E., Shaheen, S. (2016).

Table 3 Mode share from car-owning household before and after subscribing to car sharing scheme

	Annual distance (km)	
	Before subscribing to car sharing	After subscribing to car sharing
Car Sharing	0	1 850
Car	9 220	5 610
Train	1 431	3 069
Bus	140	299
Bicycle	105	225
Carpooling	35	75
Other	70	150
Total	11 000	11 278

Source: Martin, E., Shaheen, S. (2016).

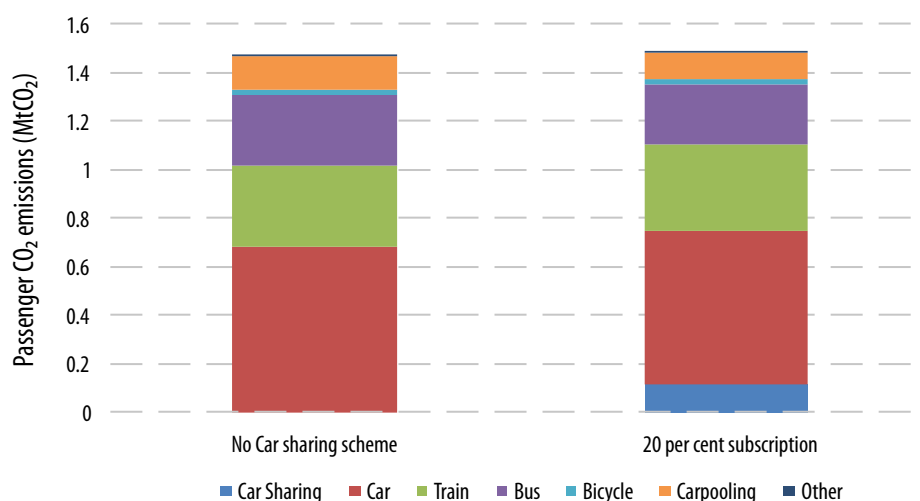
Households that do not own a car and subscribe to a car sharing scheme are likely to increase their traffic activity and GHG emissions, as for them, a shared car would be more energy-intensive than any other modes they use regularly (public transport, carpooling). With an overall annual mobility kept at similar levels, overall CO₂ emissions could increase by around 20 per cent.

Figure 2 Non car owners – CO₂ emissions before subscribing to car sharing/after subscribing to car sharing

Source: Author's elaboration based on Martin, E., Shaheen, S. (2016).

(b) The case of Kyrgyzstan

Assuming 20 per cent of the population in Kyrgyzstan would subscribe to a car sharing scheme, (whether they are car owners or not), passenger transport GHG emissions would slightly increase (by about 1.5 per cent), as the vast majority of subscribers would not have owned a car prior to registering to the car sharing scheme, which would compensate the GHG emissions reduction from those who are owning a car.

Figure 3 Passenger CO₂ emissions depending on car sharing scheme subscription

Source: UNECE.

2. Impact of carpooling schemes

Long distance carpooling has been the most successful mode to date and global companies have developed a service offering an organized carpooling by putting drivers and passengers in contact through centralized websites. A recent study performed by the carpooling company BlaBlaCar and based on user surveys in 8 countries estimates that carpooling decreases CO₂ by 30 per cent. This study also details the alternative transport modes that would have been chosen if the carpooling offer would not have been there. The interesting insight from this study is that most drivers would still have taken their car (alone) if the carpooling scheme was not there.

In countries where car ownership is low, carpooling might not be the preferred choice as offer would be limited, and car owners (probably from the higher income part of society) are likely not to be willing to share their journey with others.

Daily commute carpooling has not been as successful to date, given the lower incentive for drivers and the alternative offers, such as public transport.

Recommendations

Car sharing and carpooling would yield higher CO₂ benefits in countries where individual car ownership is high and where car sharing/carpooling schemes would replace individual car trips.

To maximize potential CO₂ emissions reduction benefit, car sharing schemes should preferably target car owners, or household that consider buying a car, in order to provide an incentive to sell (or not replace) or to avoid buying a car. Car sharing schemes are more effective at reducing CO₂ emissions in cities, where alternative modes of transport are available.

Carpooling schemes should first focus on long distance journeys, between cities, given the higher incentives for both drivers and passengers, before getting deployed in urban areas.

Legal context related to road transport

Legal Context at the national level

The National Development Strategy of the Kyrgyz Republic for 2018-2040,¹⁰ approved by Decree of the President of the Kyrgyz Republic dated 31 October 2018, No. 221, determines the strategic guidelines for the development of Kyrgyzstan for the long term, taking into account the challenges of the coming period. It formulates the image of the country's future, the basic principles and ways to achieve development goals in all spheres of society – spiritual and political, social and economic. Priority medium-term steps have also been identified to launch the strategic vision. The Development Strategy of the Kyrgyz Republic until 2040 is considered as a fundamental document that sets the policy for the development of the state in all spheres of society.

The National Development Program of the Kyrgyz Republic until 2026,¹¹ approved by Decree of the President of the Kyrgyz Republic dated 12 October 2021, No. 435, aimed at improving the well-being of citizens, is developed as part of the National Development Strategy of the Kyrgyz Republic until 2040, with maintenance of the principle of continuity based on the long-term strategic goals of the country's development with a focus on people and an emphasis on the fundamental obligation to “leave no one behind” of the Sustainable Development Goals.

The Law of the Kyrgyz Republic “On Transport”¹² determines the foundations of the legal, economic and organizational activities of the transport of the Kyrgyz Republic.

The Law of the Kyrgyz Republic “On Road Transport”¹³ regulates relations arising from the provision of services by road transport, which is part of the transport system of the Kyrgyz Republic. Relations related to the provision of services by automobile transport and urban surface electric transport (trolleybus) and not regulated by this Law are regulated by other laws and other regulatory legal acts of the Kyrgyz Republic.

The Rules for the Organization of Passenger Traffic by Road Transport in the Kyrgyz Republic,¹⁴ approved by the Resolution of the Government of the Kyrgyz Republic dated 23 September 2013, No. 519, establish the basic principles for the organization of passenger transportation, the procedure for the relationship of all subjects of road transport, regardless of the form of ownership and departmental affiliation, authorized state bodies in the field of transport, ensuring road safety and local governments.

Legal context at the local level (Bishkek)

The Program of Socio-Economic Development of the city of Bishkek for 2023 and the Forecast for 2024-2025,¹⁵ approved by the Resolution of the Bishkek City Council of 26 May 2022, No. 31, is developed in order to implement the National Development Program of the Kyrgyz Republic until 2026. The program shows a vision of the development of the capital as a modern city with a green and favorable environment for the life and work of the residents. It aims at making Bishkek the driver of the country's economic growth.

Bishkek City Development Program “Bishkek – 2026. A well-maintained and green capital”,¹⁶ approved by the Resolution of the Bishkek City Council dated 26 May 2022, No. 30, determines the priority areas of activity of the Bishkek City Mayor's Office until 2026.

¹⁰ The official website of the Cabinet of Ministers of the Kyrgyz Republic: <https://www.gov.kg/ru/programs/8> (in Russian).

¹¹ The official website of the Cabinet of Ministers of the Kyrgyz Republic: <https://www.gov.kg/ru/programs/16> (in Russian).

¹² The official website of the Centralized Database of Legal Information of the Kyrgyz Republic of the Ministry of Justice of the Kyrgyz Republic: <http://cbd.minjust.gov.kg/act/view/ru-ru/97> (in Russian).

¹³ The official website of the Centralized Database of Legal Information of the Kyrgyz Republic of the Ministry of Justice of the Kyrgyz Republic: <http://cbd.minjust.gov.kg/act/view/ru-ru/203963> (in Russian).

¹⁴ The official website of the Centralized Database of Legal Information of the Kyrgyz Republic of the Ministry of Justice of the Kyrgyz Republic: <http://cbd.minjust.gov.kg/act/view/ru-ru/94728?cl=ru-ru> (in Russian).

¹⁵ The official website of the Centralized Database of Legal Information of the Kyrgyz Republic of the Ministry of Justice of the Kyrgyz Republic: <http://cbd.minjust.gov.kg/act/view/ru-ru/530700> (in Russian).

¹⁶ The official website of the Bishkek City Council: <https://www.gorkenesh.kg/ru/the-rulings-of-the-bkg-mob/28-sozyv/5156-no-30-on-approval-of-the-bishkek-city-development-program-bishkek-2026-landscaped-and-green-capital.html> (in Russian).

The Rules for the Organization of Passenger Traffic by Road Transport in the city of Bishkek,¹⁷ approved by Resolution of the Bishkek City Kenesh dated 5 April 2022, No. 25, are developed in accordance with the Laws of the Kyrgyz Republic “On local state administration and local self-government bodies” and “On Road Transport”, and the Resolution of the Government of the Kyrgyz Republic “On the Rules for the Organization of Passenger Traffic by Road Transport in the Kyrgyz Republic” dated 23 September 2023, No. 519. The Rules establish the basic principles for organizing passenger transportation in the city of Bishkek, the relationships between public transport entities, regardless of the form of ownership and departmental affiliation, authorized public and local authorities in the field of transport. It aims at ensuring the protection of the rights and legitimate interests of passengers, in accordance with the legislation of the Kyrgyz Republic in the field of transport.

Analysis of national and local legislation in the field of transport

In 2022, there were no plans to introduce car sharing and carpooling in strategic and program documents at the national level, however, in the National Development Strategy of the Kyrgyz Republic for 2018-2040, approved by Decree of the President of the Kyrgyz Republic dated 31 October 2018, No. 221, it is noted that “there will be a gradual transition to environmentally friendly modes of transport through the use of electric vehicles and electrification of railways”. As in the National Development Program of the Kyrgyz Republic until 2026, approved by the Decree of the President of the Kyrgyz Republic dated 12 October 2021, No. 435, it is planned to develop environmentally sustainable public transport on electric traction, gas-powered fuel. It is expected that large and medium-capacity public transport will serve at least 80 percent of the city’s passenger traffic.

According to the Bishkek Socio-Economic Development Program for 2023 and the forecast for 2024-2025, approved by the Resolution of the Bishkek City Council dated 26 May 2022, No. 31, the public transport system is one of the main components of the socio-economic activity of the city. The goal is that urban public transport should become a key factor in ensuring urban mobility.

This program plans to implement the following tasks:

1. Providing the city with public transport that can fit the demand, taking into account an inclusive approach and the use of alternative fuels.
2. Increasing the responsibility of private carriers for the quality of services provided.
3. Stimulating the transition of citizens to non-cash payment for public transport.

These tasks require the implementation of the following key measures:

- (a) gradual renewal of medium and large-capacity rolling stock powered by gas engines and electric motors;
- (b) optimization of the route network of urban public transport;
- (c) attracting partners and investors to implement projects and programs aimed at improving the public transport system;
- (d) improving the rules of passenger transportation by public transport in order to improve the quality of service and responsibility of carriers;
- (e) completion of the transition to a non-cash payment system for public transport in the city of Bishkek.

¹⁷ The official website of the Centralized Database of Legal Information of the Kyrgyz Republic of the Ministry of Justice of the Kyrgyz Republic: <http://cbd.minjust.gov.kg/act/view/ru-ru/550501> (in Russian).

In the Law of the Kyrgyz Republic “On Transport”, Law of the Kyrgyz Republic “On Road Transport”, the Rules for the Organization of Passenger Traffic by Road Transport, approved by the Resolution of the Government of the Kyrgyz Republic dated 23 September 2013, No. 519, and the Rules for the Organization of Passenger Traffic by Road Transport in the city of Bishkek, approved by the resolution of the Bishkek City Council dated 5 April 2022, No. 25, there are no concepts of “carsharing” and “carpooling”.

Stages and recommendations

The UNECE study¹⁸ on car sharing and carpooling initiatives in Central Asia highlights the following key areas that should be taken into account to ensure the effective development of car sharing and carpooling initiatives in the city of Bishkek as mentioned in figure 4:

Create a sustainable mobility plan (SUMP)

To create a sustainable transport environment with appropriate policy guidance on the use of shared mobility solutions, a sustainable urban mobility plan (SUMP) could be created. Such a plan is not a legal act but would set the long-term actions of public institutions and government bodies in the field of mobility and could mention shared mobility as a component of a global sustainable mobility policy.

During the discussion of the draft Bishkek City Development Program “Bishkek – 2026. A well-maintained and green capital”, representatives of civil society noted the need for a unified approach to urban mobility. Shamil Ibragimov, Executive Director of the Soros Foundation-Kyrgyzstan, called for the use of the concept of urban mobility.¹⁹

Form a legal framework for the implementation of carpooling and car sharing initiatives, including the development of:

- Principles and directions of public regulation

In accordance with the Regulations of the Cabinet of Ministers of the Kyrgyz Republic,²⁰ approved by the Resolution of the Cabinet of Ministers of the Kyrgyz Republic dated 28 October 2021, No. 233, draft laws are submitted to the Parliament (Jogorku Kenesh) by the President, the Chairman of the Cabinet of Ministers on their own initiative or at the proposals of ministries, the state committee, other state bodies. A popular initiative (10 000 voters) is also a possible way to request the amendment of the Laws of the Kyrgyz Republic “On Transport” and “On Road Transport”.²¹

Based on the introduction of amendments to the legislation at the national level, the city of Bishkek could harmonize its regulatory legal acts at the local level. The Bishkek City Administration would submit the appropriate package of documents for consideration by the Bishkek City Council (local parliament), which, in turn, would consider this issue at a meeting of the relevant commission of the local parliament, and then, following the results, at the session of the Bishkek City Council. In case of support from local parliamentarians, the amended Rules would come into force.

Taking into account the activities related to the development of the Transport Development Strategy in the city of Bishkek, amendments to legal acts and improvement of the city’s infrastructure, the introduction of car sharing and carpooling can be considered after 2025.

¹⁸ https://unece.org/DAM/trans/publications/2020_CarSharing_E.pdf, (pages 66 to 81).

¹⁹ Development of the city of Bishkek. The unified approach to urban mobility is needed: https://24.kg/obschestvo/217517_razvitiye_bishkeka_neobhodim_edinyiy_podhod_kgorodskoy_mobilnosti/ (in Russian).

²⁰ The official website of the Centralized Database of Legal Information of the Kyrgyz Republic of the Ministry of Justice of the Kyrgyz Republic: <http://cbd.minjust.gov.kg/act/view/ru-ru/158642> (in Russian).

²¹ According to the Constitution of the Kyrgyz Republic.

Due to the absence of the concepts of carsharing and carpooling in the national and local legislation, local authorities would need to introduce an update of the conceptual apparatus in the Rules for the Organization of Passenger Traffic by Road Transport in the city of Bishkek, approved by the resolution of the Bishkek City Council dated 5 April 2022, No. 25.

- Legal requirements for car sharing and carpooling operators, the mechanism for their practical implementation in commercial activities.

The Ministry of Transport and Communications of the Kyrgyz Republic is the state body that develops, implements and manages state policies in the field of road, rail, and water transport and networks.

Ministries, state committees, administrative departments, other state bodies, local governments, when conducting an analysis of the regulatory impact of a draft legal act regulating entrepreneurial activity, should be guided by the Resolution of the Government of the Kyrgyz Republic “On Approval of the Methodology for Analyzing Regulatory Impact of Legal Acts on the Activities of Business Entities” of 30 September 2020, No. 504.²²

Appropriate amendments will need to be made to the Laws of the Kyrgyz Republic “On Transport” and “On Road Transport” accordingly.

- Requirements for customers of shared mobility services

Beyond the requirements set by the shared mobility operators (most often the minimum age and driving experience), legal requirements have also to be set, such as having a valid driver’s license and complying with traffic rules.

- Measures to stimulate the deployment of shared mobility services

The most common measures that can be suggested are administrative support measures, such as the restriction of the movement of vehicles in certain areas, the introduction of paid parking lots, an adaptation of traffic management with lanes dedicated to car sharing. The adoption of financial support measures, such as tax incentives and subsidies, can be also envisaged.

Develop procedures for issuing permits for car sharing activities

Once the Laws of the Kyrgyz Republic “On Transport” and “On Road Transport” have been amended to introduce shared mobility, the by-laws may need also to be aligned, at the national level (Rules for the Organization of Passenger Traffic by Road Transport, approved by the Resolution of the Government of the Kyrgyz Republic dated 23 September 2013, No. 519), and at the local level (Rules for the Organization of Passenger Traffic by Road Transport in the city of Bishkek, approved by the resolution of the Bishkek City Council dated 5 April 2022, No. 25).

The changes to envisage in these laws should be also related to the introduction of administrative procedures for issuing licenses and permits for car sharing operators.

Create economic incentives for shared mobility operators

It is possible to incentivise the creation and the development of car sharing activities, for example by subsidizing their acquisition of electric vehicles. Tax reductions or loans at preferential rates may also be solutions to consider. However, these measures must remain temporary in order to allow the development of competition in the longer term.

In addition, such things targeted specifically at car sharing programmes as free parking, tax benefits, the issuance of coupons for gasoline or cards with an advantage in a range of services (washing, diagnostics, etc.) can also be seen as potential incentives.

²² Regulatory Impact Analysis: <https://mineconom.gov.kg/ru/direct/5/50> (in Russian).

Establish monitoring of the results of the implemented activities

Monitoring the results of the measures and policies adopted is fundamental to ensure an effective use of the public resources for the implementation of car sharing and carpooling projects. Key targets must be defined and monitored, in the short and medium term.

Figure 4 Recommended steps for public authorities to develop car sharing and carpooling²³



²³ “Strengthening the capacity of Central Asian countries to develop sustainable urban mobility policy on car sharing and carpooling initiatives”, UNECE, 2020, https://unece.org/DAM/trans/publications/2020_CarSharing_E.pdf (English).

Recommended criteria and conditions for car sharing and carpooling operators (when applicable):

- Availability of a sufficient number of vehicles in the operator's fleet (not older than 3 years)
- Vehicles must comply with the legislation and regulations (dimensions, environmental class, etc.)
- Vehicles must be equipped with specific equipment (satellite navigation, internet connection)
- Documents proving that vehicles regularly undergo technical inspection and maintenance in accordance with national regulations and if possible UN rules
- Documents indicating the presence of a customer service (by telephone or through the operator smartphone application)
- Documents confirming the existence of established procedures for the protection of personal data of customers and guaranteeing their safety
- Third Party Liability Insurance (for each car) is essential
- The availability of free software that allows customers to book operator's cars
- Providing the city's traffic management system with data on the location of the operator's vehicles and their status of use
- Evidence of the company's good reputation status
- No arrears in payment of taxes, fees and other obligatory payments
- Presence of a registered office in the city of Bishkek
- The absence of gross violations in the field of road safety, liquidation or bankruptcy procedures.

Conclusion

Public transport in Kyrgyzstan relies mainly on buses networks (minibuses, trolleybuses). Car sharing and carpooling are still to be developed and could be a safe and environmentally friendly supplementary transport mode. It offers an attractive alternative to the private car and could also contribute to a more efficient use of available resources. By reducing the number of cars in cities, it could also help to reduce road transport pollution and congestion.

Development partners are also supporting the capital city administration in building the capacity of staff in the area of urban mobility. Within the framework of the World Bank technical assistance in the field of urban mobility in Central Asia, supported by the Korea Green Growth Trust Fund, representatives of the municipal authorities of Almaty (Republic of Kazakhstan), Tashkent (Republic of Uzbekistan), Tbilisi (Georgia), Dushanbe (Republic of Tajikistan) and Bishkek (Kyrgyz Republic) are sharing knowledge and experience. Currently, representatives of the Bishkek City Mayor's Office and the World Bank are discussing issues of public transport administration, including methodological assistance in terms of traffic regulation, studying the experience of building underground and above-ground parking lots, as well as expert support in conducting aerial and topographic surveys as part of the development of the Master Plan of the city of Bishkek.

The administration and public associations of the city of Bishkek are also purposefully implementing measures to create innovative solutions for urban mobility, such as electric scooters and bike sharing services.

When implementing car sharing and carpooling initiatives in Bishkek, coordination of the central and local governments is necessary. It should be noted the importance of the correlation of legislation at the national and local levels. The recommendations provided in this publication can be used as a basis for this exercise.

Proposals for the development of a sustainable urban mobility policy on car sharing and carpooling are planned to be included in the Concept "Smart Sustainable City of Bishkek until 2033", which is being developed within the framework of the United for Smart Sustainable Cities (U4SSC), a global UN initiative coordinated by the International Telecommunication Union, UN Economic Commission for Europe and UN Habitat.

Earlier, the Mayor's Office of the city of Bishkek, together with the UN Economic Commission for Europe, carried out work on the preparation of the city profile for the smart sustainable city of Bishkek in the period from 2020 to 2022. The profile presents the results of the assessment of the city according to the U4SSC key performance indicators.²⁴

Thus, the city of Bishkek strives to create comfortable and safe conditions for the mobility of the population using modern intelligent solutions and technologies. The recommendations provided in this publication may be used as a tool to support these efforts. With the introduction of appropriate changes to the legal acts regulating passenger transportation, a framework facilitating the development and the implementation of car sharing and carpooling services can be put in place, as a step further toward a more sustainable transport system.

²⁴ Smart Sustainable Cities Profile, Bishkek, Kyrgyzstan, UNECE, 2022: <https://unece.org/sites/default/files/2022-03/SSCP%20Bishkek%20eng%20web.pdf>.

Developing sustainable urban mobility policy on car sharing and carpooling initiatives Kyrgyzstan

In the framework of a project on strengthening the capacity of Central Asian countries to develop sustainable urban mobility policy on car sharing and carpooling initiatives, a first study was published by UNECE, focusing on a possible emergence and development of shared mobility services in Kazakhstan, Kyrgyzstan, and Tajikistan. It provided guidelines considering the best practices related to car sharing and carpooling in the public and private sectors.

This publication presents the local context in Kyrgyzstan related to urban transport and sustainable mobility, but also the legal aspects to consider for the development of car sharing and carpooling services in Bishkek. It also provides a For Future Inland Transport Systems (ForFITS) assessment and gives recommendations on the setting up of car sharing and carpooling services in Bishkek, based on discussions held with local and national stakeholders.

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