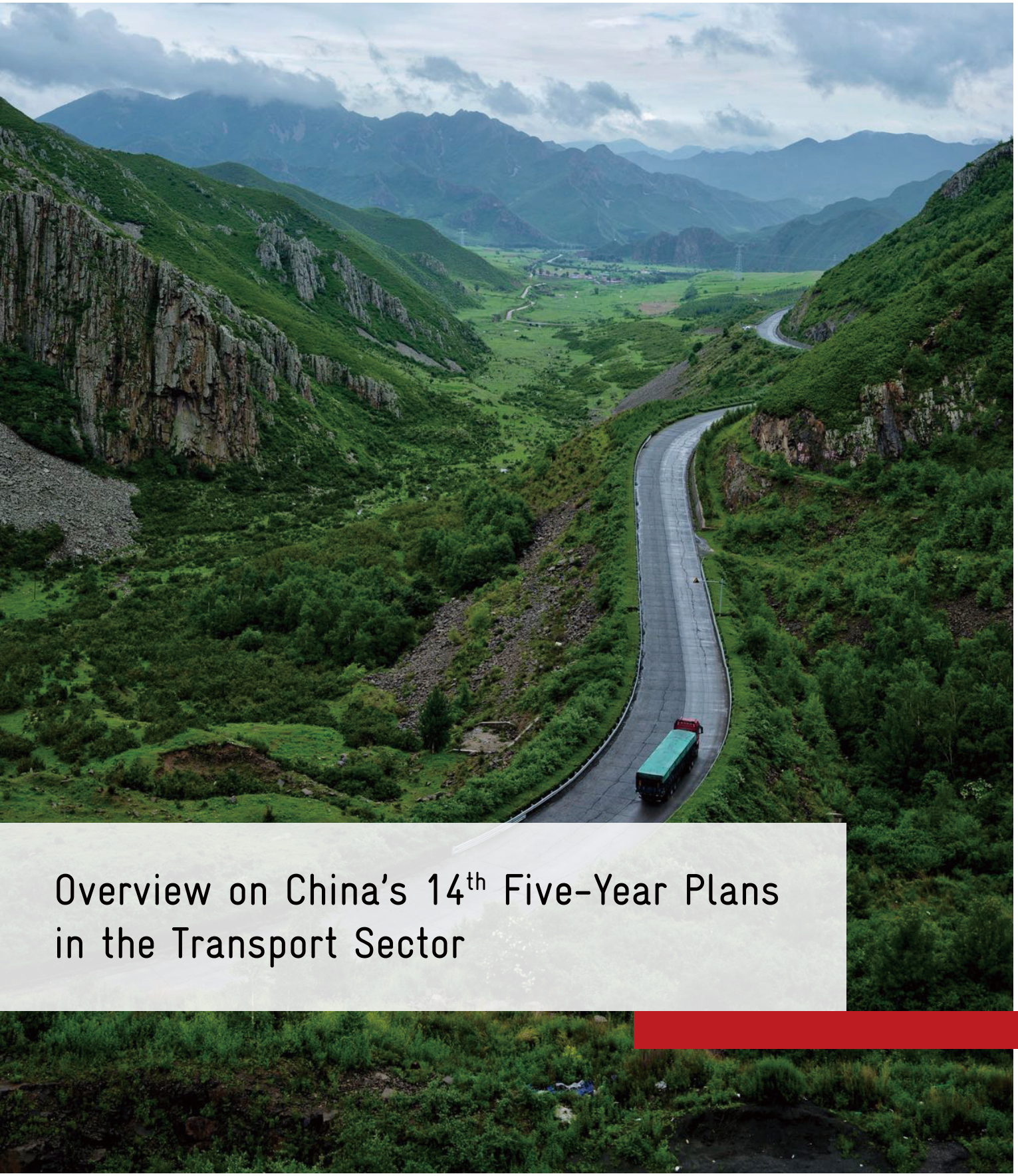

Overview on China's 14th Five-Year Plans in the Transport Sector

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Beijing, 2022

Content

This paper aims at providing a comprehensive overview of the 14th Five-Year Plans (FYPs) relevant to the development of China's transport sector until 2025 and beyond. The paper summarises the key elements, priorities and goals of the plans and draws a picture of the general development direction of transport in China.

The focus of China's social and economic development during the 14th FYP period (2021-2025) and beyond lies in further promoting the transition towards more sustainable development. The 14th FYP period is shaped in particular by COVID-19 recovery, urbanisation, city cluster development and urban-rural integration, an ageing society, safeguarding of logistics and supply chains, energy and food security, and air pollution and greenhouse gas mitigation.

The development of China's transport system in the 14th FYP period is crucial for achieving the declared goals of building an advanced and globally competitive transport system by 2035 and an internationally highly competitive transport system by 2050, as well as achieving carbon dioxide emission peaking before 2030 and carbon neutrality before 2060. The focus for transport until 2025, on the one hand lies in the further expansion of the country's transport infrastructure, in particular into its hinterland, and on the other hand in the further advancement of transport services and technology and the promotion of green and low carbon transport.

Infrastructure: Until 2025, China aims to expand its high-speed rail (HSR) network from 38,000 km to 50,000 km (with more than 95% coverage in cities with 500,000 or more residents), the urban rail network from 6,600 km to 10,000 km and to increase the number of civil transport airports from 241 to more than 270.

Transport services: Until 2025, China aims to build an integrated digital travel network with the promotion of electric tickets and intelligent passenger transport hubs as its emphasis, increase the access rate of express delivery services in villages from 50% to > 90% and equip 3,400+ high-speed trains with seats for disabled people.

Transport technology: Until 2025, China aims to increase the number of sales of New Energy Vehicles (NEVs) to reach about 20% of total sales and the percentage of NEVs in urban bus, rental car and logistics distribution from 66.2%, 27% and 8% to 72%, 35% and 20% respectively, and to increase the application rate of the Beidou Satellite Navigation System in key areas from ≥60% to >95%.

Green and low carbon transport: The carbon dioxide emission per ton kilometre of transport aviation will be reduced from 0.928 to 0.886 kg and the average annual growth rate of combined rail-water container transport volume shall be 15%.

Background

In 2021, China entered its 14th FYP period, which spans from 2021 to 2025. As China's central development blueprints, FYPs, in line with various other medium- to long term policies and strategies, articulate the country's near-term development priorities and goals. The transport sector plays a key role in China's socio-economic development roadmap and is thus reflected in the FYPs accordingly.

In March 2021, *the Fourth Session of the 13th National People's Congress issued the Outline of the 14th Five-Year Plan (2021-2025) for National Economic and Social Development and Vision 2035 of the People's Republic of China*. The plan functions as the country's top-level development blueprint and outlines the goal of constructing China's Strength in Transport[1]as one of its priorities. In line with the plan, China's goals to achieve carbon dioxide emission peaking before 2030 and carbon neutrality before 2060 (dual carbon goals)[2] and other top-level medium- and long-term development policies (see Figure 1), various transport sector-related 14th FYPs at national, provincial and local levels have been issued, putting forward new goals and requirements for the future development of transport in China (see Figure 2).

The plans set the transport sector's development course in the period from 2021 to 2025 and function as the basis for the elaboration and implementation of further (14th Five-Year) plans and programmes at national, provincial and local level. The plans describe the priorities for the development, e. g. in the fields of transport infrastructure and transport services, aviation, shipping, intermodal transport, new energy vehicles (NEVs), and active mobility (cycling and walking) and set specific goals respectively. For a comparison to the development goals of former FYPs, please see Figure 3 below.

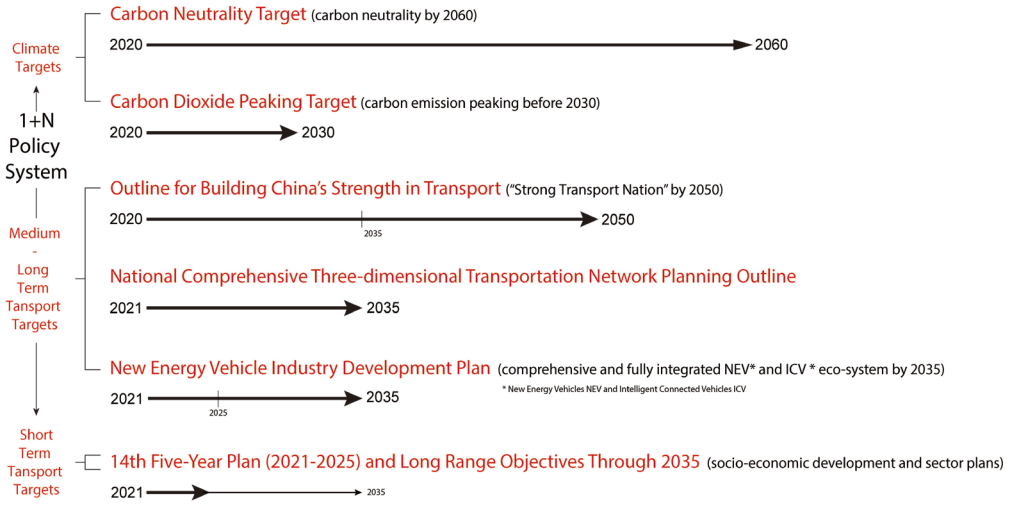

Figure 1: China's transport sector development roadmap (selected policies)
Source: GIZ

1 On September 19th, 2019, the Outline for Building China's Strength in Transport was released. The document was approved by the Communist Party of China Central Committee (CPCCC) and the State Council and describes the future vision and roadmap of China's transport sector development in two phases (Phase 1 - 2020 to 2035: Building an advanced and globally competitive transport system. A "major transport country" shall be built by 2035. By then, the transport system will have fully met the demand and serve the country's overall modernisation. Phase 2 - 2036 to 2050: Building an internationally highly competitive transport system. By 2050, an internationally highly competitive and leading transport system will be built. China's transport system shall globally meet the highest standards not only by scale but in quality of technical equipment, technological innovation capability and related professional workforce, intelligent and smart transport capabilities, environmental conditions, traffic safety and governance capacity, among others.
2 On October 28, 2021, China submitted an updated national climate commitment under the Paris Agreement – updated Nationally Determined Contribution (NDC) to the UNFCCC.

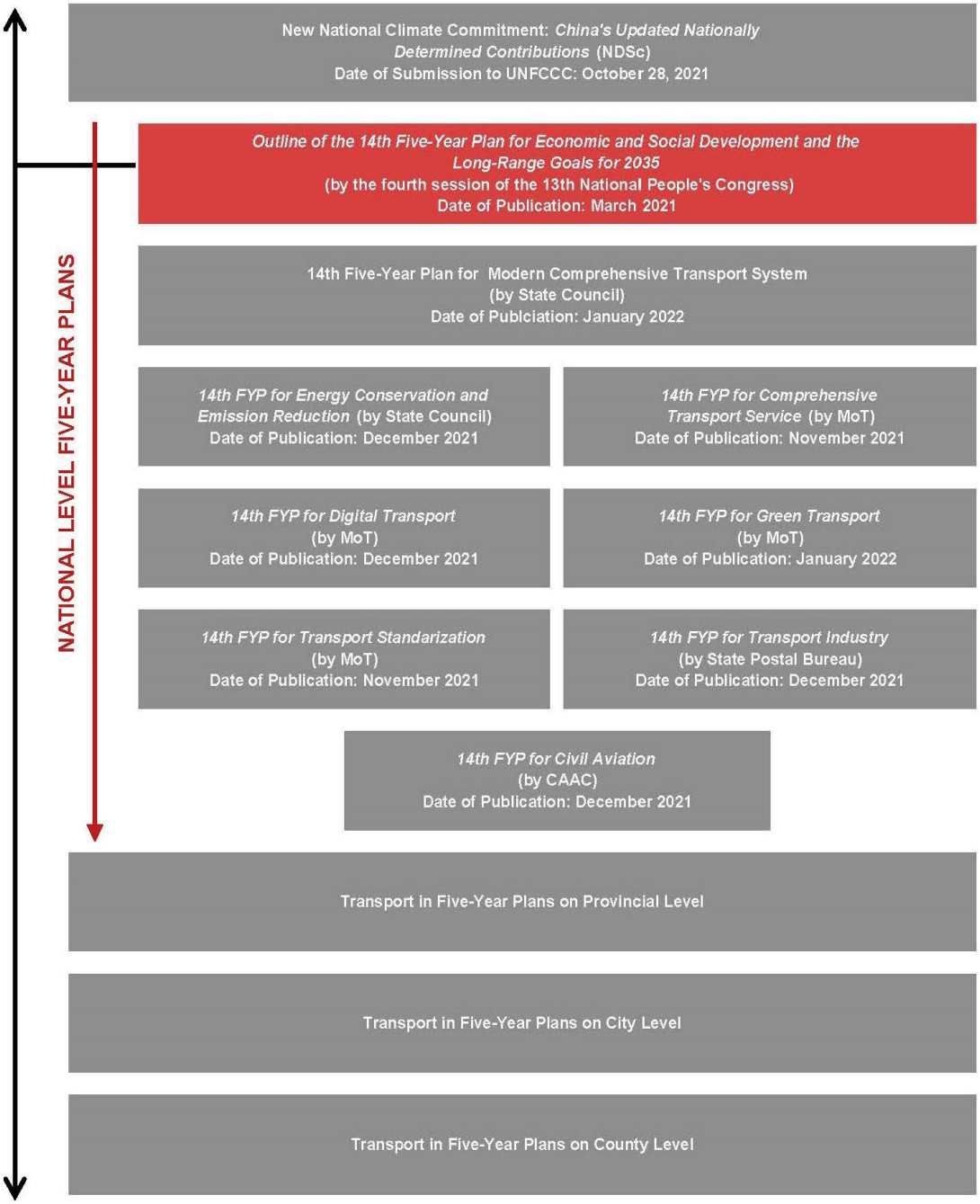

Figure 2: China's transport 14th Five-Year Plans
Source: GIZ

Target	11th FYP (2006–2010)	Status 2010	12th FYP (2011–2015)	Status 2015	13th FYP (2016–2020)	Status 2019	14th FYP (2021–2025)
Grade of urbanization	47%	**47.5%**	51.5%	**56.1%**	60%	**60.6%**	65%
Reduction in energy consumption per unit of GDP	20%	**19.1%**	16%	**18.2%**	15%	**13.2%**	13.5%
Reduction in CO_2 emissions per unit of GDP	-	**-**	17%	**20%**	18%	**18.2%**	18%
Share of non-fossil fuels in primary energy	-	**8.6%**	11.4%	**12%**	15%	**15.3%**	20%
Railway network length	90,000 km	**91,000 km**	120,000 km	**121,000 km**	150,000 km	**139,000 km**	170,000 km [21]
High-speed rail network length	-	**8,358 km**	-	**19,000 km**	30,000 km	**35,000 km**	50,000 km [22]
Highway network length	2.3 million km	**4 million km**	4.5 million km	**4.58 million km**	5 million km	**5.01 million km**	-
Civilian airports	190	**175**	230	**207**	260	**238**	268+
% villages with access to paved roads	-	**81.7%**	90%	**94.5%**	99%	**100%**	-

Figure 3: Comparison of selected transport development targets in the 11th, 12th, 13th, and 14th Five-Year Plans

Overview on China's transport 14th Five-Year Plans

Since there will be several transport related plans within the framework of the Five-Year plan, and some will be released later, below listed and described are China's key transport sector 14th FYPs at national level, especially those related to sustainable development, which have been issued to date. The plans are sorted according to their publication date.

Outline of the 14th Five-Year Plan (2021-2025) for National Economic and Social Development and Vision 2035 of the People's Republic of China

Issuing authority: Fourth Session of the 13th National People's Congress (NPC)

Date of Publication: March 11 2021

Link to the policy:
http://www.npc.gov.cn/npc/kgfb/202103/bf13037b5d2d4a398652ed253cea8eb1.shtml

The plan describes China's overall strategic development direction and the government's work priorities. It outlines that by 2035, China will basically achieve socialist modernisation and highlights that the green transformation of production and lifestyle will achieve significant results, by which energy consumption per unit of GDP (energy intensity) and carbon dioxide emissions per unit of GDP (carbon intensity) will be reduced by 13.5% and 18%, respectively.

The plan outlines the following transport-related development goals for the next five years:

- The goal to construct China's Strength in Transport, serving as a long-term oriented top-level guidance, is detailed in the plan, according to which China will strengthen the integrated development of transport in city clusters[3] and metropolitan areas, as well as the network quality improvement and layout optimisation of railways, highways, expressways, inland waterways, urban rail transit, junction stations, ports and airports.
- Further develop and strengthen the new energy vehicle (NEV) industry as an emerging strategic industry in China.
- Strengthen the supporting role of the logistics system, which is crucial for building a strong domestic market. According to the plan, China will build a modern logistics system, including the development of cold chain logistics, logistics distribution systems, railway, air and shipping freight capacity and international logistics channels.
- Further promote the digital economy[4], carry out pilot and demonstration projects in smart transport, smart logistics, smart energy, and other key fields to give full play to the advantages of the digital industry.
- Strengthen regional coordinated development as a major strategy for supporting the development of the transport sector, with a focus on the transport systems in the Beijing-Tianjin-Hebei (Jing-Jin-Ji), Yangtze River Delta, and Guangdong-Hong Kong-Macao Greater Bay Area (GBA) regions.

3 City clusters have been part of the China's urbanisation strategy since 2006 and aim to institutionalise governance coordination and cooperation mechanisms across local administrations within cluster regions. (Groff, Rau, 2019). City clusters, among others, are Jing-Jin-Ji (Beijing-Tianjin-Hebei) in the north of China, the Yangtze River Delta cluster in the east, the Pearl River Delta cluster in the south, the Cheng-Yu cluster in the west, and the Yangtze River Middle Reaches cluster in central China. City cluster development also aims at effective transport infrastructure integration (e. g. airports or intercity rail) and optimised urban development and urban-rural integration.

4 According to the Digital Economy Analysis 2020-2021, published by China Industrial Control Systems Cyber Emergency Response Team in January 2021, the digital economy, with its increasing share of GDP, has become a new lever to leverage the growth of the world's economic recovery.

• Improve urban development and enhance the connectivity of infrastructure in metropolitan areas, as well as the priority of the development of urban transit and a slow-traffic network of bicycle lanes and pedestrian paths.

• Promote the transition of the transport sector towards low-carbon development; promote the transition of bulk goods transportation and medium and long-distance freight transportation from highways to railways and waterways; and the electrification of urban public transit and logistics distribution vehicles.

• Further continue opening-up for win-win cooperation. The plan urges further efforts to promote integrated connectivity that comprises land, sea, air, and cyber links, and to create a new international land-sea trade corridor.

14th Five-Year Plan for the Development of Transport Standardisation

Issuing authority: Ministry of Transport (MoT) of the People's Republic of China

Date of publication: November 15 2021

Link to the policy: https://xxgk.mot.gov.cn/2020/jigou/kjs/202111/t20211112_3625878.html

As a guidance for the standardisation work for the transport sector during the 14th Five-Year Plan period, the plan proposes to basically establish a high-quality standard system for transport by 2025. According to the plan, the government-led and market-led formulation of standards should develop in coordination and standardisation together with scientific and technological innovation, as well as regional coordinated development strategy and rural revitalisation strategy should be deeply integrated. China should become an important participant and contributor to the global standardisation and greatly enhance its international influence by promoting the co-construction and sharing of international standards.

The plan outlines the following development goals for the next 5 years:

• Basically establish a high-quality standard system and complete 1,200 national and industrial standard formulation and revision projects, focusing on emerging fields such as integrated transportation, safety emergency, green development, etc.

• The average revision cycle of national and industrial standards should be completed within 18 months, and the sampling qualification rate of important products[5] should reach more than 95%.

• The internationalisation of standards should be significantly improved, with the conversion rate of international standards reaching more than 85%.

14th Five-Year Plan for the Development of Comprehensive Transport Services

Issuing authority: Ministry of Transport (MoT) of the People's Republic of China

Date of Publication: November 18 2021

Link to the policy: https://xxgk.mot.gov.cn/2020/jigou/ysfws/202111/t20211118_3626733.html

As a blueprint for the high-quality development of integrated transport services in the 14th Five-Year Plan period, the plan proposes that a multi-level, high-quality passenger travel service

5 According to the State Administration for Market Regulation, important products refer to 10 categories of products: hazardous chemicals, packages of hazardous chemicals, vehicle mounted atmospheric tanks, steel bars, cement, wires and cables, gas appliances, fireworks and firecrackers, electric bicycles, electric bicycle chargers and batteries.

system and a whole-chain, integrated freight logistics service system should be basically established, with the modern international logistics supply chain system continuously improved, the green and digital development level significantly advanced, and the ability to serve and support economic and social development further enhanced.

The plan outlines the following development goals for the next 5 years:

• Build a synergistic and integrated transport service system. The plan highlights the goals of "zero-distance transfer" for passenger transport and "seamless connection" for freight transport and calls for promotion of "MaaS (Mobility as a Service)[6]".

• Construct a fast and convenient urban and rural passenger transport service system. Aiming at a high-capacity, high-efficiency intercity express passenger transport service mainly supported by high-speed rail and air, the plan requires a wider accessibility to buses in towns and villages, and a richer customisation of transport and tourism services.

• Build a comfortable and smooth urban travel service system. The plan emphasises the priority of public transport, the improvement of slow traffic, especially elderly-appropriate services, and the guidance of choosing green and low-carbon transport modes for the public.

• Build an intensive and efficient freight transport and logistics service system. The construction of urban and rural logistics and distribution systems will be improved, according to the plan, with emerging rural logistics service brands, better cold chain logistics parks, advanced electronic waybill and temperature monitoring systems etc.

• Build a safe and smooth international logistics supply chain service system. The plan puts a special focus on opening up direct transport channels between China and Europe and further development of the China-Europe block train.

• Create a clean and low-carbon green transport service system. In alignment with the dual carbon goals, the plan proposes to actively develop clean transport equipment, update high emission operating vehicles, promote the green and lightweight mail and express packaging, so as to promote the overall green transformation of transport services.

• Create a digital and intelligent transport service system. Herein, data resources and digital supervision are the main expectations of the plan for the development of transportation services.

• Create a strong security and emergency service system. For this purpose, automobile maintenance and motor vehicle driver training are stressed in the plan.

• Create a unified and open transport service market system. The plan requires a deeper all-round reform of various market entities, and actively promotes the legislation of supporting regulations, so as to improve the integrated transport service standard system and continuously improve the industry's governance capacity.

• Build a sophisticated and professional staff insurance system. The plan calls for a better safeguard of the legitimate rights and interests of employees, and improvement in their sense of professional honour.

Key indicators:

6 MaaS is a concept aimed at the integration of public transport and private mobility services into one digital mobility platform, ultimately facilitating an entire urban trip, from route-planning to payment.

Indicator	2020	2025
Percentage of people taking public motorized transit in central cities (%)	>43	>46
Number of cities with more than 70% green travel ratio and meanwhile with a resident population of 1 million or more	40	60
Coverage rate of electronic ticket of second-class and above road passenger transport stations, inter-provincial and inter-city passenger transport lines (%)	30, 25	99, 80
Percentage of railroad cargo turnover (%)	15.5	17
Average annual growth rate of rail-ship container transportation volume (%)	23.8	>15
Access rate of express service in villages (%)	50	90
Ratio of return and loaded containers of China-Europe freight trains (%)	43.8, 98.4	45, 95
Number of international road transport agreement signed countries and regions	19	25
Percentage of new energy vehicles in city bus, rental car and logistics distribution (%)	66.2, 27, 8	72, 35, 20
Decline rate of death toll per 10,000 vehicles in road transport higher and above grade traffic accidents (%)	12	
Percentage of application handled within a time limit and satisfaction rate of the return visit through the transport service and complaints hotline 12328 (%)	93.9, 97.8	95, 98

14th Five-Year Plan for the Development of Civil Aviation

Issuing authority: Civil Aviation Administration of China (CAAC)

Date of Publication: December 14 2021

Link to the policy: http://www.caac.gov.cn/XXGK/XXGK/FZGH/202201/t20220107_210798.html

The plan proposes that the development of civil aviation during the 14th Five-Year Plan period be divided into a "recovery and accumulation" period (2021-2022), and a "growth and release" period (2023-2025) for step-by-step implementation. Looking forward to 2035, civil aviation in China will realize the strategic goal of leaping from a single air transport power to a multi-field civil aviation power.

The plan outlines the following development goals for the next 5 years:

Safety system with a specific focus on the operation, air defence, airworthiness, information and other civil aviation safety chains.

Infrastructure system with the improvement of the national comprehensive airport system and air traffic security services.

Aviation service system in terms of air passenger network, air logistics network, general aviation network and service quality. Eco-friendly green development system, promoting resource conservation and intensive utilisation.

Strategic support system including the leading strategy of scientific and technological innovation, the talent pool, regional coordinated development, and opening-up to the outside world.

Governance system with more advanced intelligent supervision and strengthened cultural construction.

Key anticipatory indicators:

No.	Indicator		2020	2025	Average Annual Growth Rate (%)
(1) Support Capability					
1	Number of Civil Airport		580	770	-
	Including:	Number of civil transport Airport	241	270	-
		Number of runways in transport airport	265	305	-
2	Guaranteed take-off and landing sorties (10000 sorties)		905	1770	12.9 (6.5)
3	Coverage rate of route from municipal level administrative centre to transport airport within 60 minutes (%)		74.8	>80	-
(2) Industry Scale					
4	Total transport turnover (100-million-ton kilometres)		799	1750	17.0 (5.2)
5	Passenger transport volume (100 million person)		4.2	9.3	17.2 (5.9)
6	Cargo and mail transport volume (10000 tons)		677	950	7.0 (3.9)
7	Share of Chinese aviation entreprises in China's international freight market (%)		33.8	≥40	-
8	General aviation flight volume (10000 hours)		281	450	9.5
	Including: flight volume of Unmanned Aerial Vehicle Cloud System (10000 hours)		183	250	10
(3) Safety Level					
9	Major and above accident rate of transport flight per million hours (times / million hours)		0	< [0.11]	-
10	Death toll of air transport per 100 million passenger kilometres (person / 100 million passenger kilometres)		0	< [0.0051]	-
(4) Convenience and Efficiency					
11	Flight Punctuality Rate (%)		88.5	>80	-

12	Bridge approach rate of airports with an annual passenger traffic over 10 million (%)	75	80	-
13	Rail transit access rate of hub airport (%)	68	80	-
14	Average daily utilisation rate of transport aircraft (hours)	6.5	9.4	
15	Number of navigable countries	62	>70	-
	Including: number of navigable countries who build the "one belt one road" together	42	>50	-
(5) Innovation and Intelligence				
16	Electronic rate of freight documents (%)	-	80	-
17	Paperless rate of the whole travel at airports with an annual passenger traffic over 10 million	-	100	-
18	Baggage tracking service level through whole travel (%)	-	90	-
19	Localisation rate of new major equipment in ATC system (%)	60	[80]	-
20	Proportion of R & D investment of major entreprises (%)	0.6	1	-
(6) Green Development				
21	Carbon dioxide emission per ton kilometre of transport aviation (kg)	[0.928]	[0.886]	-
22	Energy consumption per passenger at airport (kg standard coal)	[0.948]	[0.853]	-
Notice: 1. The data with [] is cumulative. 2. The data with () is the 6-year average annual growth rate based on 2019.				

14th Five-Year Plan for Energy Conservation and Emission Reduction

Issuing authority: The State Council of the People's Republic of China

Date of Publication: December 18 2021

Link to the policy: http://www.gov.cn/zhengce/content/202201/24/content_5670202.htm

The plan sets specific targets and programmes aimed at promoting energy conservation and emission reduction. According to the plan, by 2025, the energy consumption per unit of GDP will be 13.5% lower than it was in 2020. The total emissions of chemical oxygen demand, ammonia nitrogen, nitrogen oxides and volatile organic compounds will be 8%, 8%, more than 10% and more than 10% lower than that in 2020 respectively.

The plan outlines the following development goals for the next 5 years:

- Orderly promote green infrastructure construction such as charging, gas filling, hydrogen refuelling, shore power etc.
- Vigorously promote NEVs and NEV supporting infrastructure. By 2025, the sales of NEVs should reach about 20% of total sales.
- Develop multi-modal transport and accelerate the shift in the transportation of bulk goods and medium- and long-distance freight transport, from highways to railways and waterways.
- Vigorously promote clean diesel engines, and upgrade and replace heavy-duty diesel trucks.
- Accelerate the application of standardised logistics turnover boxes.
- Comprehensively promote green express packaging.

14th Five-Year Plan for the Development of Digital Transport

Issuing authority: Ministry of Transport (MoT) of the People's Republic of China

Date of Publication: December 22 2021

Link to the policy: https://xxgk.mot.gov.cn/2020/jigou/zhghs/202112/t20211222_3632469.html

The plan specifies the development goals of China's digital transport, according to which by 2025, the digitisation, networking and intellectualisation of China's transport sector will be significantly improved.

The plan outlines the following development goals for the next 5 years:

- Build a comprehensive transport information platform focusing on big-data and co-sharing.
- Build a new integrated transport infrastructure network mainly in railways (e.g., advanced train administration and communications system and intelligent train dispatching command system), highways (e.g., ETC system and intelligent service area), channels (e.g., measurement facility and monitoring perception network), civil aviation and postal (automated sorting facility).
- Deploy Beidou, 5G and other information infrastructure application networks, especially Beidou global maritime distress communication and search and rescue support systems.
- Build an integrated digital travel network with the promotion of electric tickets and intelligent passenger transport hubs as its emphasis.
- Build a smart logistics network of multimodal transport, particularly with the development of electronic waybills and intelligent shipping.
- Upgrade the modern industry

management information network, in which the handling process of government services should be simplified and the health and safety risk monitoring network for important transport infrastructure should be strengthened.

- Cultivate the digital transport innovation and development system.
- Build a comprehensive network security system.

14th Five-Year Plan for the Development of Postal Industry

Issuing authority: State Post Bureau

Date of Publication: December 28 2021

Link to the policy:
http://xxgk.spb.gov.cn/extranet/detail.html?yc_id=34adedfd-953a-47d5-abe7-b877befa77de

The plan sets out the development direction for the postal industry as a strategic national infrastructure in the 14th Five-Year Plan period, which proposes that by 2035, China should basically build its strong postal power and basically reach the level of 1-day delivery in China, 2-day delivery in neighbouring countries, and 3-day delivery in major cities worldwide.

The plan outlines the following development goals for the next 5 years:

- Consolidate the development of the postal industry, especially ensuring the security of confidential communication.
- Accelerate the expansion of the postal industry, e.g., cultivating and expanding market players, such as building a logistics supply chain group; and promoting industrial synergy and integration especially with e-commerce.
- Improve the delivery network system, including strengthening the construction of hubs, trunks and terminal-delivery networks.
- Develop international delivery logistics and expand overseas and cross-border service capacity.
- Promote scientific and technological innovation in the postal industry with the focus on its digitisation.
- Improve the security level of the postal industry, including network data security and emergency systems.
- Promote the green transformation in packaging.
- Improve the governance capacity of the postal industry.

Key indicators:

Category	Indicator	2020	2025	Average annual growth rate / increment [cumulative]
Scale	1. Postal business income (100 million yuan)	11038	18000	10.3%
Capacity	2. Express delivery business volume (100 million pieces)	1089	1770	10.2%
	3. Express delivery business income (100 million yuan)	8795	15000	11.3%
Coordination	4. Proportion of mail delivered 3 times a week or more in villages in the western region (%)	94.7	>99	[>4.3]
	5. Express delivery service access rate to villages (%)	50	>90	[>40]
	6. Number of countries and regions covered by international express network	>70	>85	[>15]
Service	7. Overall satisfaction of express delivery service (points)	76.7	≥80	[≥3.3]
	8. The time limit for the whole process of mail between municipalities and provincial capitals (days)	3	<3	-
	9. Punctuality rate of express delivery service within 72-hour in key areas (%)	77.1	80	[2.9]
Innovation	10. Growth rate of CR[8] entreprise R & D investment (%)	-	-	>12
Green develoment	11. Number of recyclable express delivery packages (10000)	200	>1000	[>800]
Security	12. Safety accident rate of express mail production (cases/ billion pieces)	-	-	[-15%]
Note: [] refers to the accumulated amount in five years.				

14th Five-Year Plan for Development of Modern Comprehensive Transport System

Issuing authority: The State Council of the People's Republic of China

Date of Publication: January 19 2022

Link to the policy: https://xxgk.mot.gov.cn/2020/jigou/zhghs/202201/t20220119_3637245.html

The plan is a strategic top-level transport development policy guiding the development of a comprehensive and fully integrated transport system in China. According to the plan, by 2025, China's comprehensive transport system will see integrated development with an improved infrastructure and facility network, more effective transport services, and more advanced technical equipment. Based on the near-term development, by 2035, a convenient, economical, efficient, reliable, green and advanced modern national comprehensive transportation network will be basically completed.

The plan outlines the following development goals for the next 5 years:

- An improved facility network with more than 95% coverage of the high-speed rail (HSR) network in cities with 500,000 or more residents, a nearly completed national expressway network, higher capacity utilisation of the main skeleton of the National Comprehensive Three-Dimensional Transportation Network, a more complete modern airport system, port terminals, transport hubs and advanced inland waterways, as well as the basic connection of the national border roads.
- More efficient transport services, including more popularised "one stop"[9] transport services and a more enhanced global transport service network.
- More advanced technology and equipment with a deeper integration of 5G, AI and other technologies in the transport sector, as well as a more comprehensive coverage of the Beidou satellite navigation system.
- More dependable safety assurance, particularly material supply chain assurance at the domestic and international levels.
- More improved governance capacity with further diversified investment and financing systems and laws.
- More sustainable development model with a wider application of clean and low-carbon transport, the significantly increased proportion of railway and waterway transportation, clean transportation and resource utilisation, as well as a steady decrease in carbon emissions.
- By 2035, the *National 123 Travel Traffic Circle*[10] and the *Global 123 Express Cargo and Logistics Circle*[11] should be basically completed.

Key indicators:

9 In terms of passenger transport, "one-stop" service allows passengers to go directly from the starting point to the destination; in terms of freight transport, "one-stop" service refers to a coordinated process of transportation.
10 One-hour commute for metropolitan areas, two-hour commute for city clusters, and three-hour commute in major cities
11 One-day delivery in China, two-day delivery in neighbouring countries, and three-day delivery in major cities worldwide

Category	Target	2020	2025①	Attribute
Facility Network	1. Railway operating mileage (ten thousand km)	14.6	16.5	Anticipatory
	Including: High-speed rail (HSR) operating mileage (ten thousand km)	3.8	5	Anticipatory
	2. Highway operating mileage (ten thousand km)	519.8	550	Anticipatory
	Including: Expressway completed mileage	16.1	19	Anticipatory
	3. Advanced navigable inland waterway mileage (ten thousand km)	1.61	1.85	Anticipatory
	4. Civil transport airports	241	>270	Anticipatory
	5. Urban rail transit② operating mileage (km)	6,600	10,000	Anticipatory
Combination and Integration	6. Railway access rate in key port areas of coastal ports (%)	59.5	>70	Anticipatory
	7. Rail transit access rate in hub airport③ (%)	68	80	Anticipatory
	8. Average annual growth rate of combined rail-water container transport volume (%)	–	15	Anticipatory
	9. Access rate of express delivery service in villages (%)	50	>90	Anticipatory
Intelligent and Green	10. Application rate of Beidou System in key areas④ (%)	≥60	>95	Anticipatory
	11. Proportion of urban new energy buses⑤ (%)	66.2	72	Anticipatory
	12. Reduction rate of transport carbon dioxide emission intensity⑥ (%)	–	〔5〕	Anticipatory
Safety and Reliability	13. Reduction rate of death toll per 10000 vehicles in major and above road traffic accidents (%)	–	〔12〕	Binding
	14. Major accident and above rate of civil aviation transport flight per one million hours (times/million hours)	0	〔<0.11〕	Binding
	15. Fatality rate in railroad traffic accident per billion-ton kilometre (person/billion-ton km)	0.17	<0.3	Binding

Notice: ① In 〔〕 is the cumulative data within 5 years.
② It refers to the large and medium volume urban rail transit projects included in the urban rail transit construction plan approved by the state.
③ It refers to the percentage of airports which connect rail transit in international hub airports and regional hub airports.
④ It refers to key operating vehicles[12], self-owned trunk transport vehicles of postal express, passenger ships that should be equipped with onboard equipment with satellite positioning function, and dangerous goods ships etc.
⑤ It refers to the proportion of new energy buses in all ground buses.
⑥ It refers to the carbon dioxide emission calculated based on the unit transportation turnover.

12 Including tourist buses, chartered buses, class III or above passenger trains and dangerous goods transport vehicles. Please refer to: https://xxgk.mot.gov.cn/2020/jigou/ysfws/202006/t20200623_3315235.html

14th Five-Year Plan for the Development of Green Transport

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In the context of dual carbon goals, this plan serves as the guiding direction for the energy structure adjustment and emission reduction of the transport sector in the next five years. It proposes that by 2025, green and low-carbon production methods in the transport sector be initially formed with environment-friendly infrastructure, clean and low-carbon transport equipment, as well as the intensive and efficient transport organisation.

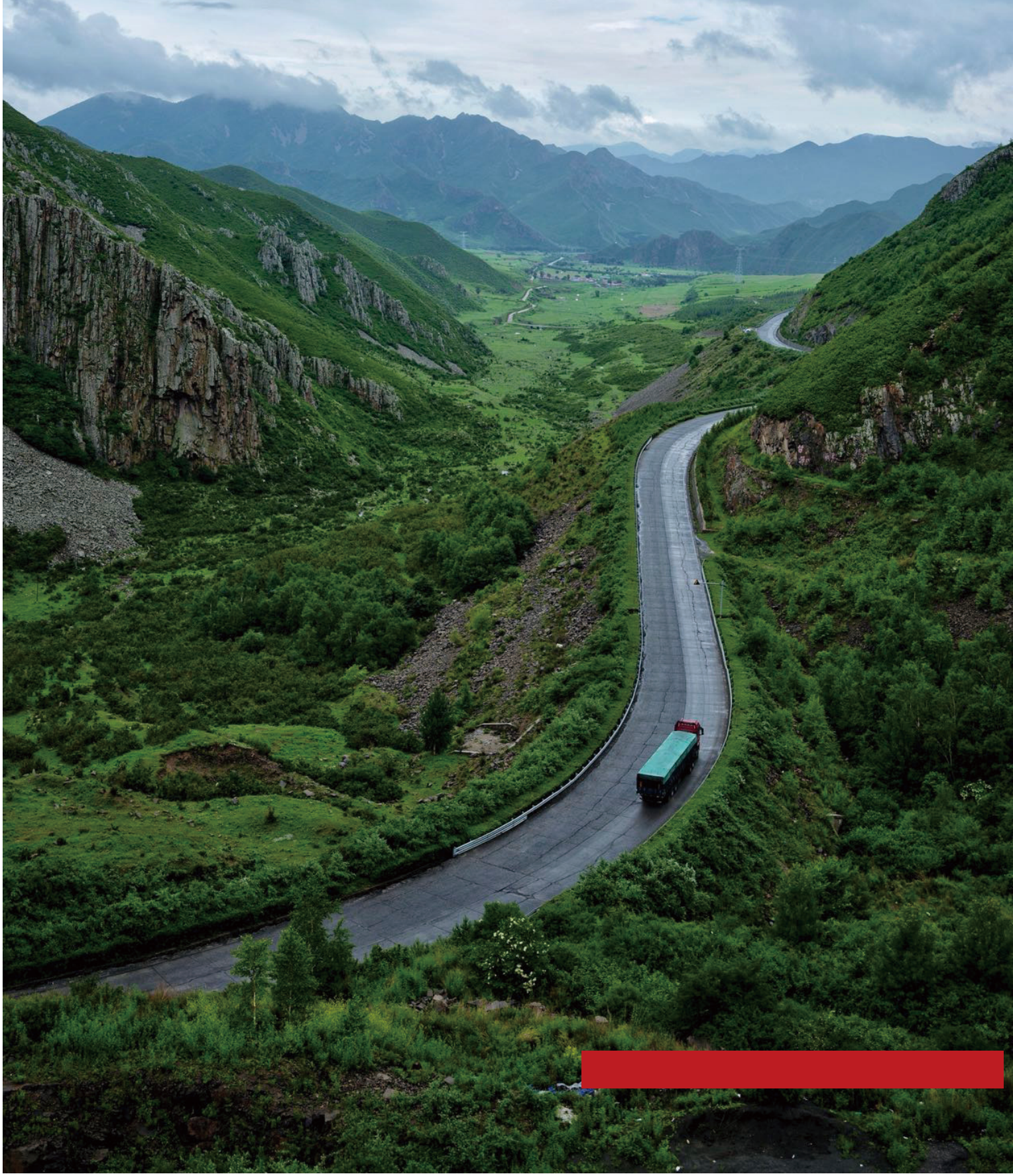
The plan outlines the following development goals for the next 5 years:

- Optimise spatial layout and construct green transport infrastructure.
- Optimise transport structures and improve comprehensive transport energy efficiency.
- Promote the application of new energy and build a low-carbon transport system.
- Adhere to addressing both the symptoms and root causes and promote the in-depth management of traffic pollution.
- Insist on innovation-driven and strengthen the support of green transport technology.
- Improve the promotion of mechanism and the green transport supervision system.
- Improve the cooperation mechanism and deepen international exchanges and cooperation.

Key indicators:

Number	Indicator Type	Indicator	Target Value in 2025	Indicator Attribute
1	Reducing pollution and carbon emission	Reduction rate of CO_2 emission per unit transport turnover of operating vehicles compared with 2020 (%)	5	Anticipatory
2		Reduction rate of CO_2 emission per unit transport turnover of operating ships compared with 2020 (%)	3.5	Anticipatory
3		Reduction rate of total NO_x emission per unit transport turnover of operating ships compared with 2020 (%)	7	Anticipatory
4	Energy consumption structure	Proportion of new energy vehicles in urban public transport, taxi (including online car hailing) and urban logistics distribution in China (%)	72, 35, 20	Anticipatory
5		Proportion of new energy and clean energy container trucks in international container hub seaports① (%)	60	Anticipatory
6		The growth rate of shore power consumption of the year in ports and water service areas of the Yangtze River Economic Belt compared with that in 2020 (%)	100	Anticipatory
7	Transportation structure	Average annual growth rate of combined rail-water container transport volume (%)	15	Anticipatory
8		Number of cities with 1 million or more urban residents with more than 70% green travel ratio②	60	Anticipatory

Notice: ① International container hub seaports refer to Shanghai Port, Dalian Port, Tianjin Port, Qingdao Port, Lianyungang Port, Ningbo Zhoushan Port, Xiamen Port, Shenzhen Port, Guangzhou Port, Beibu Gulf Port, Yangpu Port, a total of 11 ports.
② Green travel includes urban public transport as well as slow-moving transport such as cycling and walking.



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