

新时代的中国农村公路发展	China's Rural Roads in the New Era
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农村公路是覆盖范围最广、服务人口最多、公益性最强的交通基础设施, 是农村地区最主要甚至是唯一的交通方式, 对于服务农民出行、增进民生福祉、改善人居环境、促进农业农村现代化具有重要作用。	China's non-profit making rural roads constitute the most extensive component of transport infrastructure and serve a significant majority of the population. They are the primary, if not the sole transport channel in rural areas, and play a critical role in assisting the rural population in their travels, improving their wellbeing and living environment, and advancing the modernization of agriculture and rural areas.
今年是新中国成立 75 周年。	This year marks the 75th anniversary of the

	founding of the People's Republic of China (PRC).
中国幅员辽阔，地形复杂，人口众多，自然条件、资源禀赋、区域发展差异较大。	China is a vast country with diverse terrains and a large population; its natural conditions, resources and development levels vary considerably across regions.
中国共产党团结带领中国人民白手起家、艰苦创业，坚持政府主导、以人为本、改革创新、因地制宜，着力破解制约经济社会发展的交通瓶颈，推动农村公路实现了从“走得了”到“走得好”的持续发展。	The Communist Party of China (CPC) has united and led the Chinese people in starting from scratch to build accessible, and ultimately good-quality rural roads through immense hard work. Throughout this process, the government has played a leading role while prioritizing the wellbeing of the people and implementing reform and innovative measures that consider local conditions, effectively addressing transport bottlenecks that had impeded China's economic and social growth.
中共十八大以来，中国农村公路进入崭新发展阶段。	The development of rural roads in China has entered a new stage since the 18th CPC National Congress in 2012.
在习近平总书记“进一步把农村公路建好、管好、护好、运营好”重要指示的指引下，通过创新体制、完善政策，系统谋划、精准施策，持续推动农村公路高质量发展，农村公路的覆盖范围、通达深度、管养水平、服务能力、安全韧性显著提高。	Guided by President Xi Jinping's instructions to further strengthen the construction, management, maintenance and operation of roads in rural areas, China has continued to drive high-quality development of rural roads through institutional innovation, better policies, systematic planning and targeted policy implementation. This has led to significant improvements in the coverage, accessibility, maintenance, services, safety, and resilience of rural roads.
条条大道连接中国万里河山，阡陌交通托起百姓致富梦想，中国走出了一条符合国情的农村公路发展道路，也为全球减贫事业发展贡献了中国智慧、中国方案。	While broad highways connect mountains and rivers over this vast land, rural roads buttress common people's dream of prosperity. China has explored an approach to developing rural roads in light of its realities, contributing Chinese wisdom and solutions to global poverty reduction.
为介绍新时代中国农村公路发展成就和理念，分享中国推动农村公路发展的实践经验，特发布本白皮书。	The Chinese government is publishing this white paper to introduce the achievements and vision of rural road development in the new era and to share China's experience.
一、建设造福农村、惠及农民的幸福路	I. Building Roads to Benefit Rural Areas and the Rural Population

<p>新中国成立之初，一穷二白、百废待兴，农村公路艰难起步。</p>	<p>In the early years of the PRC, the country was poor and backward, and rural road construction made a struggling start.</p>
<p>改革开放后，中国通过“以工代赈”、“八七”扶贫攻坚、西部大开发等重大国家战略，加大对农村公路的支持力度，有效强化了农村公路的基础条件，2002 年农村公路总里程达到 134 万公里^①。</p>	<p>After the launch of reform and opening up in 1978, support for rural road construction increased through major national initiatives, including the practice of providing employment instead of relief for those in difficulty, the Seven-year Priority Poverty Reduction Program (1994-2000), and the large-scale development of the western region. As a result, the condition of rural roads improved significantly and by 2002, the total length of rural roads had reached 1.34 million km¹.</p>
<p>2003 年，提出“修好农村路，服务城镇化，让农民兄弟走上油路 and 水泥路”，实施“东部地区通村、中部地区通乡、西部地区通县工程”和“通达通畅工程”，农村公路进入快速发展阶段，2012 年农村公路总里程增长到 368 万公里。</p>	<p>In 2003, the Chinese government set the goal of “constructing more and better rural roads to facilitate urbanization, and ensure that farmers have access to asphalt and cement roads”. Through an accessibility and connectivity project, more roads were built to ensure that all villages in China’s east, all townships in the central part, and all counties in the west had access to the road network. Thanks to the rapid growth achieved over a decade, the total length of rural roads increased to 3.68 million km by 2012.</p>
<p>进入新时代，中国的农村公路建设围绕打赢脱贫攻坚战、实施乡村振兴战略，以服务保障广大农民致富奔小康为出发点和落脚点，持续推进高质量发展，实现了具备条件的乡镇和建制村通硬化路、通客车、通邮路目标。</p>	<p>Entering the new era, China has advanced high-quality rural road construction in support of the poverty eradication campaign and the rural revitalization strategy, and in service of farmers striving for moderate prosperity, meeting the goal that all towns, townships, and administrative villages where conditions allow have access to asphalt and cement roads, as well as bus and postal services.</p>
<p>截至 2023 年底，农村公路总里程增长到 460 万公里，占公路总里程的 84.6%，形成了“外通内联、通村畅乡、客车到村、安全便捷”的农村交通运输网络，带动了农村地区整体面貌发生巨变。</p>	<p>By the end of 2023, the length of rural roads had reached 4.6 million km, accounting for 84.6 percent of the total road length in China. This safe and convenient transport network has brought about a remarkable transformation in rural areas, connecting villages and towns to the outside world and expanding bus services to villages.</p>
<p>中国农村公路事业沿着服务农业、造福农</p>	<p>The ongoing development of rural roads will</p>

村、惠及农民的发展方向，阔步前行。	continue to bring benefits to China's agriculture, rural areas and rural population.
(一) 以人民为中心	1. People-Centered Approaches
坚持以人民为中心的发展思想，努力满足人民对美好出行的需求，修人民最想修的路，着力解决人民最关心、最直接、最现实的问题。	Adhering to a people-centered philosophy of development, China has worked to see that people's needs for quality transport is met and roads are built where they are most needed, in an effort to address the issues that directly impact the people's most immediate interests.
坚持人民共建共治共享，充分发挥人民群众的积极性、主动性、创造性。	It emphasizes people's collaboration, participation, and common interests, and inspires their enthusiasm, initiative, and creativity.
坚持普惠性、可持续发展，大力推进城乡基本公共服务均等化，奋力实现农村公路由“通”到“畅”再到“好”的转变，让人民共享交通发展成果，不断提升人民的获得感、幸福感、安全感。	To ensure all-inclusive and sustainable development, China promotes equal access to basic public services for both urban and rural residents. It is sparing no effort to upgrade rural roads for a high-quality road network, so that all the people can enjoy the benefits of better transport, and a greater sense of gain, fulfillment and security.
(二) 高位谋划融入发展大局	2. High-Level Planning as Part of Overall National Development
坚持围绕中心、服务大局，把农村公路放在打赢脱贫攻坚战、实施乡村振兴战略、推进农业农村现代化等事关国家发展全局的重大任务中统筹谋划部署。	Rural road development must serve national economic growth and the country's overall interests. Therefore, it is aligned with major national development strategies for poverty eradication, rural revitalization, and the modernization of agriculture and rural areas.
充分发挥农村公路在农村经济社会发展中的先行作用，坚持科学规划、适度超前，加快补短板强弱项，消除制约农村发展的交通瓶颈，实现所有具备条件的乡镇和建制村通硬化路、通客车、通邮路，推动农村公路提升服务品质、提高服务效率、拓展服务功能，引领服务促进城乡统筹，助力减少城乡差距，推进农业农村现代化、促进农民农村共同富裕。	China has ensured that rural roads fully play their foundational role for bolstering economic and social development in rural areas. Well-conceived plans that take into account future needs have been carefully devised, and weak points and transport bottlenecks that previously hindered progress in rural areas have been addressed. As a result, all towns, townships, and administrative villages where conditions allow now have access to asphalt and cement roads, as well as bus and postal services. More efforts will be made so that rural roads offer improved, efficient, and diverse services and play a leading role in facilitating urban-rural integration, bridging the urban-rural gap,

	advancing the modernization of agriculture and rural areas, and promoting common rural prosperity.
(三) 因地制宜探索发展路径	3. Exploring Development Paths in Light of Local Conditions
坚持精准施策，充分考虑不同地区、不同类型乡村的阶段性特征以及客观条件，差异化制定发展目标任务和支持政策，使农村公路与区域经济发展水平、乡村产业布局和群众安全便捷出行需求相适应。	China has implemented targeted measures by giving full consideration to the development stage and conditions of rural areas in different regions and of different types. It has formulated differentiated goals and implemented supportive policies to build roads for rural areas in light of the economy, industrial layout, and people's needs for safe and convenient travels in their respective regions.
按照“宜宽则宽、宜窄则窄”的原则，合理确定建设技术标准，节约集约用地，强化生态环境保护 and 民俗传统文化保护。	The government has established flexible and well thought-out technical standards for rural roads that consider local conditions, efficient and economical land utilization, eco-environmental protection and the preservation of indigenous cultural tradition.
立足各地资源禀赋差异，探索适合不同地区的农村公路发展模式，促进农村公路与当地产业深度融合，充分发掘当地资源优势，不断延长农业产业链，助力产业提升。	Taking into account differences in resources, China has explored development models for rural roads in different areas, promoting the deep integration of rural roads with local industries, and tapping the strengths of local resources to extend agricultural industry chains and upgrade the industry.
(四) 以改革创新为动力	4. Propelling Rural Road Construction with Reform and Innovation
坚持深化农村公路管理养护体制改革，持续完善农村公路建设、管理养护、客货运输发展的体制机制和政策制度，构建系统完备、科学规范、运行有效的制度体系，推动建设、管理、养护、运营协调发展。	China has continued to further institutional reform in the management and maintenance of rural roads, and improve systems, mechanisms and policies for rural road construction, management and maintenance, and freight and passenger transport. The goal is to establish a well-developed, well-conceived, procedure-based and effective framework of systems and institutions that coordinate the construction, management, maintenance and operation of rural roads.
把有为政府和有效市场结合起来，加大政府投入力度，充分调动社会力量，解决农村公路发展不平衡不充分问题。	The country has combined a well-functioning government with an efficient market. The government has increased its investment and mobilized non-governmental entities to

	address imbalances and insufficiencies in rural road development.
把高质量发展摆在突出位置，以改革创新激发农村公路发展活力，因地制宜发展新质生产力，以农村公路高质量发展服务保障中国式现代化建设。	Focusing on high-quality development, China has invigorated rural road development through reform and innovation, fostered new quality productive forces in line with local conditions, and promoted high-quality development of rural roads to support Chinese modernization.
(五) 统筹协作凝聚发展合力	5. Forging Synergy for Development Through Coordination and Collaboration
坚持调动各方积极性，建立“政府主导、部门协调、上下联动、运转高效”的工作格局，形成权责清晰、齐抓共管的农村公路管理养护体制机制。	In order to mobilize the enthusiasm of all parties involved, China has put in place a highly efficient mechanism for rural road management and maintenance. Led by the government, this mechanism features coordination and interaction among different departments across levels, delineating powers and responsibilities to ensure concerted efforts.
加强资源、资金和政策整合，强化农村公路管理养护资金保障，提高对重大战略、重点区域的保障力度。	Resources, capital and policies act in tandem to guarantee sufficient funding for rural road management and maintenance, especially with respect to major strategies and key areas.
激发广大群众参与农村公路建设和养护的积极性、主动性，发挥企事业单位、社会团体、国际组织的积极作用，把农村公路示范创建作为发挥省市两级统筹指导作用、夯实县级主体责任的有效载体，共同汇聚形成发展强大合力。	The government has encouraged active and enthusiastic public participation in rural road construction and maintenance, while also leveraging the role of enterprises, public institutions, social organizations and international organizations. Creating model rural roads has been employed as an effective platform for provincial- and city-level governments to perform their coordinating and guiding roles, and for county-level governments to fulfill their primary responsibilities. All of this resulted in great synergy powering the development of rural roads.
二、农村公路通到老百姓家门口	II. Building Rural Roads Accessible to Every Household
家门口的幸福，起于阡陌交通。	Easy access to convenient roads brings happiness to the doorstep.
以适应和满足优化村镇布局、农村经济发展和农民安全便捷出行需求为目标，持之以恒、攻坚克难，稳步推进农村交通基础设施	To improve the layout of villages and townships, encourage rural economic growth, and meet the needs of rural people for safe and

建设，“晴天一身土，雨天一身泥”成为历史，“出门水泥路，抬脚上客车”的梦想变为现实。	easy travel, China has steadily developed its rural transport infrastructure and resolved any problems encountered through hard work and perseverance. Trudging through dust and mud on dirt roads has become a thing of the past; cement roads leading to every household have made bus services available for all – a dream come true.
(一) 通村畅乡连片成网	1. Building a Rural Road Network Connecting Villages, Towns and Townships
十年来，中国农村公路建设成效显著，在农村公路总规模增长的同时，技术等级和通达深度也明显提升。	Over the past decade, notable achievements have been made in the construction of rural roads in China. While the total length has increased, technical standards and accessibility have also significantly improved.
里程规模显著增长。	Marked increase in length.
十年来，新改建农村公路 250 余万公里。	Upgraded and newly-built rural roads have added up to over 2.5 million km over the past decade.
截至 2023 年底，农村公路总里程达到 460 万公里，长度可绕地球赤道 115 圈，十年间增长 21.7%。	By the end of 2023, the total length of rural roads reached 4.6 million km, an increase of 21.7 percent over 2013, enough to circle the equator 115 times.
县道、乡道、村道里程分别达到 70 万公里、124 万公里、266 万公里。	A total of 700,000 km of county roads, 1.24 million km of township roads and 2.66 million km of village roads had been built.
农村公路桥梁达到 53 万座、隧道 2222 座。	There were a total of 530,000 highway bridges and 2,222 tunnels in rural areas.
形成了一张县道沟通城乡、乡道往来交织、村道抵田连户的农村交通基础设施网络。	A rural transport infrastructure network in which county roads connect rural and urban areas, township roads crisscross, and village roads facilitate travel between households and farmland is in place.
图 1 农村公路里程变化情况	Figure 1 Change in the Length of Rural Roads
技术等级逐年提高。	Rising technical standard.
截至 2023 年底，农村公路等级路 ^② 里程及比例分别达到 445 万公里和 96.8%，铺装路面里程及比例分别达到 422 万公里和 91.8%，十年间分别提高了 11.9 个百分点、27.2 个百分点。	By the end of 2023, there were 4.45 million km of graded rural roads ² , making up 96.8 percent of the total rural roads. Paved roads measured 4.22 million km and accounted for 91.8 percent of the total rural roads, representing an increase of 11.9 and 27.2 percentage points respectively over the past 10 years.
通达深度全面提升。	Increasing accessibility.

实现了具备条件的约 3 万个乡镇、超过 50 万个建制村全部通硬化路（专栏 1）。	Where conditions are right, paved roads have been built in about 30,000 towns and townships and over 500,000 administrative villages (see Panel 1).
有序实施了较大人口规模自然村（组）通硬化路建设。	The construction of paved roads has been gradually completed in natural villages (or household groups) with relatively large populations.
旅游景点、产业园区、资源矿产等农村地区主要经济节点的通硬化路问题基本解决。	They have also been built in rural tourist destinations, industrial parks, sources of resources and minerals, and other points of economic growth.
偏远地区尤其是山区农民群众对外出行更加便捷。	This makes travel in remote areas and particularly in mountainous areas more convenient.
图 2 农村公路等级公路和铺装路面比例变化情况	Figure 2 Change in the Percentage of Rural Graded Roads and Paved Roads
专栏 1 小康路上不让任何一地因交通而掉队	Panel 1 No Region Should Be Left Behind Because of Inadequate Road Coverage on the Journey Towards Prosperity
响应广大农民群众致富奔小康的期盼，逐步推进具备条件的乡镇和建制村通硬化路，十年来，累计解决了 821 个乡镇、7.06 万个建制村通硬化路难题。	To meet the rural people's expectation for moderate prosperity, China has progressively connected paved roads to towns, townships and administrative villages where conditions allow. Over the past decade, China has overcome difficulties to build paved roads in 821 towns and townships and 70,600 administrative villages.
阿布洛哈村，位于四川省凉山彝族自治州布拖县。阿布洛哈，彝语意为“人迹罕至的地方”。该村三面环绕着海拔 3000 米以上的高山，一面朝江临崖。	Abuluoha, a small village located in Butuo County, Liangshan Yi Autonomous Prefecture in Sichuan Province, is surrounded by mountains over 3,000 meters high on three sides and a cliff above the river on the other. As its name in the Yi language suggests, this village was “a place off the beaten path”.
修路前村民需沿陡峭的山路步行 3 个多小时才能出村。	To leave the mountains involved a three-hour walk along the cliff.
为解决村民出行难题，实施了全长近 4 公里的通村路项目。	To help the villagers, a new four-km road was built.
项目全线地质结构复杂，施工难度大，最终动用重型运输直升机吊装设备修路。	As the complex geological structure posed a great challenge for the road project, large equipment was flown in to the construction site by a heavy transport helicopter.
公路建成后，村民坐车 10 多分钟就可出村。	Once the road was finished, the trip out of the

	mountains was reduced to a 10-minute ride.
跨山越岭、过河穿沙。农村地区“行路难”问题得到历史性解决，助力亿万农村贫困人口全部脱贫，确保小康路上不让任何一地因交通而掉队。	When the road network runs deep into the mountains and across rivers, travel in rural areas is no longer a problem. Hundreds of millions of impoverished rural people have been helped out of poverty, and no region has been left behind because of inadequate road coverage on the journey towards prosperity.
(二) 有规划有步骤有目标	2. Achieving the Goal with Good Planning and a Progressive Approach
立足服务国家发展战略和农村经济社会发展需求，坚持规划引领、加强统筹协调，科学制定农村公路发展阶段性目标、任务和路径，推进农村公路事业稳步有序发展。	In order to serve the national development strategy and rural economic and social development needs, China has set well-conceived goals, tasks, and roadmaps for steady and orderly rural road development, with good planning and coordination.
系统谋划农村公路发展。	Systematic planning.
农村公路中长期规划是农村公路事业持续健康发展的基本依据。	Medium- and long-term plans are the basis for the continuous and sound development of rural roads.
我国 2005 年发布《农村公路建设规划》，2013 年发布《集中连片特困地区交通建设扶贫规划纲要(2011—2020 年)》，提出到 2020 年具备条件的乡镇和建制村通沥青（水泥）路等发展目标，把具备条件的乡镇和建制村通硬化路作为全面建成小康社会的交通运输兜底性任务，加大贫困地区农村公路建设力度。	One of the goals of the Plan for Rural Road Construction released in 2005 and the Outline of Poverty Alleviation-Oriented Transport Projects in Contiguous Poverty-Stricken Areas (2011-2020) issued in 2013 was to connect towns, townships and administrative villages where conditions allow with asphalt (cement) roads by 2020. Another was to build paved roads within these locations, a basic transport requirement in building a moderately prosperous society in all respects, and to step up road construction in impoverished areas.
2021 年发布《农村公路中长期发展纲要》，构建便捷高效的农村公路骨干路网、普惠公平的农村公路基础网络，科学指导全面建设社会主义现代化国家新征程阶段农村公路建设与发展。	The Outline for Medium- and Long-term Development of Rural Roads issued in 2021 set the goal of building a convenient and efficient trunk road network and an inclusive and equitable basic road network in rural areas, offering guidance to rural road construction and development on the new journey towards a modern socialist country.
2022 年发布《全国国土空间规划纲要(2021—2035 年)》，引导农村公路与产业园区、旅游景区等协同布局，加强农村公路与乡村文旅资源和特色产业对接。	The Outline for National Territorial Space Planning (2021-2035) released in 2022 guided the design of rural roads linking industrial parks and tourist destinations, and strengthened

	the impact of rural roads on cultural and tourist resources and distinctive local businesses.
有序推进农村公路建设。	Orderly construction.
在中长期规划指引下，制定了公路五年发展规划等阶段性规划。	China has formulated five-year development plans for rural roads under the guidance of medium- and long-term plans.
合理确定不同时期的农村公路发展目标和重点任务（专栏2），有序实施“通达通畅工程”、提档升级工程、安全能力提升工程、联网路建设工程等。因地制宜、分区分类施策，统筹推进农村公路建设，一步一步推进、积小胜为大胜，逐步提升农村公路服务能力和水平。	Well-planned development goals and key tasks for different periods have been set (see Panel 2). To build higher-quality roads for greater connectivity, it has phased in road upgrading, road safety improvement, and networked road construction, and taken region- and category-specific measures to develop rural roads in accordance with local conditions. All of this has helped to improve rural road service capacity and standard.
专栏2 各时期农村公路建设重点任务	Panel 2 Key Tasks for Rural Road Construction in Different Periods
“十二五”时期：（一）推进以西部建制村通沥青（水泥）路等为重点的全国通达、通畅建设任务，满足农民群众基本出行需求。	The 12th Five-year Plan period: 1. Prioritizing the construction of asphalt (cement) roads in administrative villages in the western region as part of the national accessibility and connectivity project to satisfy the basic travel needs of rural people.
（二）完善农村公路基础设施，包括桥梁新建工程、安保工程等，提高农村公路的抗灾能力和安全水平。	2. Improving rural road infrastructure, including new bridges and reconstruction of old ones, and safety improvement projects, to increase the disaster resistance and safety of rural roads.
（三）改善农村公路网络状况，包括县乡道改造、连通工程等，提高农村公路的网络化水平和整体服务能力。	3. Improving the rural road network, including county and township road renovation and connectivity projects, to expand the network and overall service capabilities of rural roads.
“十三五”时期：（一）按照全面建成小康社会和扶贫开发基本要求，以西部地区、集中连片特困地区、“老少边穷”地区为主战场，全面完成具备条件的剩余乡镇、建制村通硬化路任务。	The 13th Five-year Plan period: 1. Connecting all the remaining towns, townships and administrative villages where conditions allow to paved roads in the western region, contiguous poverty-stricken areas, old revolutionary base areas, areas with large ethnic minority populations, border areas, and impoverished areas – a basic requirement for building a moderately prosperous society in all respects and development-driven poverty alleviation.

（二）按照建制村通客车要求，加强农村公路窄路基或窄路面路段改造。	2. Further improving the sections of rural roads with shallow subgrade or surface to provide all administrative villages with bus services.
（三）有序推进人口仍然聚居的撤并建制村通硬化路建设，继续实施农村公路渡改桥工程。	3. Connecting dissolved or merged administrative villages which still provide homes to relatively large populations to paved roads in an orderly manner; continuing to replace ferries with bridges in rural areas;
结合农村经济发展和村镇建设，实施一批旅游路、资源路、产业路和新型村镇出口路等县乡道改造和联网路。	and renovating and linking to the network county roads, town roads and township roads leading to rural tourist destinations, resources, industrial parks, and newly-emerged villages/towns in light of rural economic growth and local development.
“十四五”时期：（一）推动交通建设项目更多向进村入户倾斜，因地制宜推进较大人口规模自然村（组）通硬化路建设。	The 14th Five-year Plan period: 1. Prioritizing village and rural household connectivity in more transport projects and connecting natural villages (or household groups) with relatively large populations to paved roads in light of local conditions.
（二）实施建制村通双车道公路建设和过窄农村公路拓宽改造。	2. Building two-lane roads in administrative villages and expanding overly narrow roads in rural areas.
（三）加强通村公路和村内道路连接，统筹规划实施农村公路穿村路段，灵活选用技术标准，兼顾村内主干道功能。	3. Strengthening road connectivity between and within villages, coordinating the design of road sections through villages as appropriate so they also serve their function as village arteries.
（四）改善农村主要经济节点对外公路交通条件，服务乡村振兴发展。	4. Improving the conditions of roads leading to major economic growth points in rural areas to contribute to rural revitalization;
加强老旧县乡道改造，提高乡村骨干路网通行能力和运行效率。	renovating old county and township roads to improve the transport capacity and efficiency of the rural arterial road network.
（三）不让任何一地因交通而掉队	3. No Region Should Be Left Behind Because of Inadequate Road Coverage
人民交通为人民。	Transport should serve the people.
农村公路发展过程中始终把人民对美好生活的向往作为努力方向，注重均衡发展、协调发展，让人民群众共享交通发展成果，不让任何一地因交通而掉队。	Meeting the people's aspiration for a better life should always be the goal in rural road development. Coordinated and balanced development should be emphasized so that people can share the benefits of improved transport and that no region is left behind due to poor road access.
促进区域农村公路平衡发展。	Promoting balanced development of rural

	roads between regions.
中国幅员辽阔、乡村广布，区域间发展程度参差不齐。	China is a vast country with extensive rural areas, the level of development varying from region to region.
制定差异化农村公路建设支持政策，对中部地区、西部地区、特殊困难地区确定不同的建设重点，制定投资政策进行倾斜性支持，重点发展脱贫县、乡村振兴重点帮扶县、欠发达地区、山区、民族地区等地区农村公路，逐步补齐短板，缓解区域间农村公路发展不平衡问题。	The government has lent differentiated policy support in rural road development to the central region, western region, and deeply impoverished areas, setting different priorities and giving them preferential policies in regard to investment as more roads are built in counties that have just emerged from poverty, counties requiring government support in rural revitalization, underdeveloped areas, mountainous areas, and ethnic minority areas, reducing imbalances in rural road development between regions.
缩小城乡交通差距。	Narrowing the gap between rural and urban roads.
持续提升农村公路品质，实施路面硬化、窄路基或窄路面路段改造、乡镇通三级路、建制村通双车道公路、乡镇对外双通道、老旧县乡道改造等一系列工程，农村地区交通基础网络、骨干网络不断完善，与城市道路的差距逐步缩小。	China has steadily improved rural road quality, launching projects to harden road surfacing, renovate roads with a shallow subgrade or surface, build Grade III roads in towns and townships and two-lane roads in administrative villages, connect towns and townships to county and provincial arterial roads, and renovate old county and township roads. These efforts have improved the basic and trunk road networks in rural areas, gradually narrowing the gap between rural and urban roads.
解决特殊地区出行难题。	Ensuring transport accessibility in far-flung mountainous areas.
改一条溜索、修一段公路就能给群众打开一扇脱贫致富的大门。	Replacing zip lines with bridges and building new roads can open the door to prosperity for people living deep in the mountains.
为了保障偏远山区百姓安全出行，推动“溜索改桥”建设，专项资金支持、精心组织实施，用3年时间彻底改善了溜索地区出行条件（专栏3）。	To guarantee safe travel for people living in remote mountainous areas, China channeled special funds to replace zip lines with bridges, significantly improving these regions' access to the outside world after three years' hard work (see Panel 3).
推进“直过民族”和人口较少民族聚居区农村公路建设，解决民族地区交通闭塞的突出问题，加快民族地区脱贫致富步伐。	It has stepped up the effort to build rural roads for regions inhabited by ethnic groups skipping development stages to directly enter socialist society in Yunnan Province and by ethnic

	groups with smaller populations, breaking the transport bottleneck for them and accelerating their progress out of poverty and towards prosperity.
专栏 3 “溜索改桥”	Panel 3 Replacing Zip Lines with Bridges
溜索是一种渡河工具，它以一条钢索或粗绳连接山谷两侧，一头高、一头低，人、货物、牲畜等可由高向低溜过河谷。	A zip line is a steel cable or thick rope hung with a height difference above a river or valley to send people, goods or livestock from one side to the other.
溜索安全隐患大，运输效率低。在很多偏远地区，群山横亘、江河交错，人们出山得靠溜索，否则就要翻山越岭大费周折。	People living in remote mountainous areas crossed by rapid rivers resorted to zip lines rather than long mountain treks, despite the security risks and low transport efficiency.
交通基础设施建设具有很强的先导作用，特别是在一些贫困地区，改一条溜索、修一段公路就能给群众打开一扇脱贫致富的大门。	Transport infrastructure construction plays a key role in development, particularly in some impoverished areas, as replacing zip lines with bridges or building new roads in these regions will open the door to prosperity for impoverished people.
为彻底改善溜索地区出行条件，交通运输部、国务院扶贫办联合制定并组织实施了《“溜索改桥”建设规划（2013-2015 年）》，将云南、四川、贵州、陕西、甘肃、青海、新疆等 7 省（区）边远山区的溜索改成安全可靠的人行桥或车行桥。	To decommission zip lines and improve local travel conditions, the Ministry of Transport and the Office of Poverty Alleviation and Development of the State Council formulated and implemented the Plan for Replacing Zip Lines with Bridges (2013-2015). All zip lines in the remote mountainous areas in seven provinces and autonomous regions – Yunnan, Sichuan, Guizhou, Shaanxi, Gansu, Qinghai and Xinjiang – have been transformed into safe and reliable pedestrian or vehicular bridges.
7 个省（区）共计完成 309 个“溜索改桥”项目，配套建设近 900 公里的连接道路，惠及 904 个建制村的 96 万群众（其中贫困人口 66 万人）。	A total of 309 such projects have been completed in these areas, complete with about 900 km of connection roads to benefit 960,000 people (including 660,000 living in poverty) across 904 administrative villages.
“溜索改桥”工程实施，有效改善了边远深山沿江（河）地区的对外交通条件，显著提高了群众出行的安全性和便捷性，彻底结束了山里百姓依靠溜索往来的历史，曾经出行困难的村民们也由此走进了“大桥时代”新生活。	This project has effectively improved these areas’ access to the outside world, and increased travel safety and convenience. Gone are the days when local residents had to resort to zip lines to travel around; they are now enjoying their new life with easy transport across bridges.
（四）标准引路向“绿”而行	4. Pursuing Green Development of Rural Roads Guided by Policy Measures and

	Technical Standards
以政策制度、标准规范为指引，强化监管监督，建设质量优良、安全耐久、绿色发展的农村公路。	Guided by policy measures and technical standards and with strengthened supervision, China aims to pursue green development of safe, durable and high-quality rural roads.
强化制度标准保障。	Strengthening institutional guarantee.
管理制度让农村公路建设有法可依、有章可循。	Regulation systems offer a legal framework for rural road development.
出台《农村公路建设管理办法》等部门规章和《农村公路建设质量管理办法》《关于提升农村公路工程质量耐久性的实施意见》等政策制度文件，为农村公路建设责任划分、建设规划、资金筹措、建设施工、质量安全、工程验收等提供有效的制度保障。	Departmental regulations and policies such as Administrative Measures for Rural Road Construction, Administrative Measures for Rural Road Quality, and Instructions on Improving the Quality and Durability of Rural Road Engineering have been rolled out to provide an effective institutional guarantee for the whole process of construction from responsibility assignment, project planning, fund raising, and road building, to quality control, safety management and check and acceptance.
建设符合标准的农村公路。	Meeting technical standards.
结合地形地貌等实际情况，以《公路工程技术标准》《小交通量农村公路工程技术标准》等为指导，在技术等级选用、交通量、设计速度、路线、路基、路面、安全设施等方面严格执行行业或地方标准规范，确保建成符合标准的农村公路。	To bring rural roads up to standard under the guidance of Technical Standard of Highway Engineering and Technical Standard of Low Volume Rural Highway Engineering, China has strictly followed industry standards or local construction standards in terms of choice of technical grade, traffic volume, design speed, routes, subgrade, road surface, and safety facilities, while giving consideration to different topographic and geomorphic conditions.
农村公路宽度一般不低于 4.5 米，高级路面（沥青、水泥混凝土路面）比例超过 87%。	The width of rural roads is generally at least 4.5 meters, and over 87 percent of them have a high-grade surface (asphalt or cement).
打造质量耐久的农村公路。	Ensuring durability.
高度重视农村公路建设质量，贯彻全过程质量安全理念，严格执行公路建设项目法人责任制度、招标投标制度、工程监理制度和合同管理制度。	China prioritizes quality in rural road construction, embracing the concept of whole-process quality and safety management, and enforcing systems directing legal person accountability, tenders and bids, project supervision, and contract management.
严格按图施工，对偷工减料等行为严肃查处。	Rural road projects are delivered in strict accordance with the construction blueprints,

	and any jerry-building is investigated and punished.
加强对农村公路参建人员职业培训和技术指导，提升农村公路质量管控能力。	Vocational training and technical guidance have been intensified for construction workers to improve quality control.
强化建设质量检测，开展年度农村公路实体质量抽检，重点加强农村公路安全防护设施质量监管。	Quality inspection has been strengthened by launching annual sampling inspection on rural roads and giving particular attention to quality supervision of road safety facilities.
农村公路建设工程实行质量责任终身制。	A lifelong accountability system for road quality has been put in place.
强化工程质量监督评价，推行农村公路建设“七公开”制度，将建设计划、补助政策、招投标、施工管理、质量监管、资金使用和工程验收等信息公开，接受社会监督。	China has strengthened supervision and evaluation of project quality and made information available to the public regarding construction plans, subsidy policies, tenders and bids, construction management, quality supervision, use of funds, and project inspection and acceptance.
建立以质量为核心的农村公路信用评价机制，质量信用评价结果在市场准入、招投标和行业监管中得到应用。	It has established a credit evaluation mechanism focusing on road quality, and the credit is referred to in market access, tenders and bids, and industry supervision.
推进绿色发展。	Seeking green development.
绿水青山就是金山银山，牢固树立和践行绿色发展理念，建设以资源节约、生态环保、节能高效、服务提升为主要特征的绿色农村公路，实现健康可持续发展。	Lucid waters and lush mountains are invaluable assets. China upholds and acts on a vision of healthy, sustainable, and green development, building green rural roads which are resource-saving, environment-friendly, energy-efficient, and provide quality service.
节约集约利用资源，严格保护土地资源。	It sticks to economical and intensive use of resources and strictly protects land resources.
推行废旧材料再生循环利用。	Great efforts have been made in recycling waste and scrap.
推行生态环保设计，严守生态保护红线，实现路与自然和谐共生。	It has adopted environment-friendly designs and enforced the red lines for eco-environmental conservation to ensure harmony between roadscapes and nature.
突出全寿命周期成本理念，实施标准化施工。	Life-cycle cost analysis is observed in standardized construction.
因地制宜建设沿线充电基础设施、交通驿站、停车休息观景点等，服务群众绿色、便捷出行。	Charging facilities, service stations, and roadside scenic lookouts are built depending on local conditions to provide people with green and convenient travel experience.
三、农村公路治理更加协同、规范、高效	III. More Coordinated, Standardized and

	Efficient Rural Road Governance
建好是基础，管好是保障。	Effective rural road governance means not only building good roads but also ensuring their proper management.
立足当前，着眼长远，准确把握农村公路发展规律、趋势、特征，不断建立健全体制、机制、政策、制度，持续提高农村公路治理能力。	Based on the current situation and with a long-term perspective, China has accurately grasped the principles, trends, and characteristics of rural road development, and established robust systems, mechanisms, policies, and regulations, continuously enhancing its governance capacity of rural roads.
(一) 构建完善的法律法规政策体系	1. Building a Complete System of Laws, Regulations and Policies
致力于提高治理管理效能，坚持问题导向，持续深化农村公路管理体制机制改革，健全完善法律法规政策，强化要素保障，逐步构建农村公路治理体系的“四梁八柱”。	China is committed to improving the effectiveness of its governance and management. It adopts a problem-oriented approach to furthering reform of rural road management systems and mechanisms. By strengthening legal and policy frameworks and ensuring adequate allocation of key factors, it has gradually established a robust governance system for rural roads.
健全法律法规。	Improved laws and regulations.
高度重视农村公路立法工作，先后出台一系列相关法律法规、规章制度。	China attaches great importance to legislative work on rural roads and has promulgated a series of relevant laws, regulations, and policies.
1997年，《中华人民共和国公路法》出台，历经5次修正，对包括县道、乡道在内的公路规划、建设、养护、经营、使用和管理进行了规定。	The Highway Law of the People's Republic of China, enacted in 1997, and subsequently amended five times, regulates the planning, construction, maintenance, operation, use, and management of roads, including county and township roads.
2011年，颁布《公路安全保护条例》，对开展执法巡查、违建清理、超限超载车辆管理等工作进行了明确。	In 2011, the Regulations on the Administration of Highway Safety were promulgated, clarifying the work of law enforcement patrols, illegal construction clearance, and the management of vehicles with out-of-gauge goods and/or overloaded vehicles.
目前，正在积极推进《农村公路条例》制定工作。	Currently, China is actively promoting the formulation of the Regulations on Rural Roads.
全国各省（区、市）颁布农村公路条例或公路条例等地方性法规。	All provinces and equivalent administrative units nationwide have promulgated local road or rural road regulations.

<p>颁布《农村公路养护管理办法》《道路旅客运输及客运站管理规定》等部门规章。</p>	<p>Departmental regulations such as the Administrative Measures for Rural Road Maintenance and the Provisions on the Administration of Road Passenger Transport and Passenger Stations have also been promulgated.</p>
<p>形成了国家法律为龙头，行政法规为骨干，地方性法规和部门规章为支撑的农村公路法律法规体系。</p>	<p>A legal system for rural roads has been formed, with national laws as the base, administrative regulations as the spine, and local and departmental regulations as support.</p>
<p>完善政策制度。</p>	<p>Refined policies and systems.</p>
<p>出台《关于推动“四好农村路”高质量发展的指导意见》等 20 余项政策文件，建立覆盖体制、机制、组织、监管、资金、考核、服务等领域的农村公路政策制度体系。</p>	<p>China has issued over 20 policy documents, including the Guiding Opinions on Promoting the High-Quality Development of Rural Roads in Their Construction, Management, Maintenance and Operation, and established a policy and institutional system that addresses systemic, organizational, supervisory, funding, evaluation, and service aspects of rural road management.</p>
<p>把责任制作为管理的重中之重，出台《关于深化农村公路管理养护体制改革的意见》，确立省、市级政府加强统筹和指导监督、县级政府履行主体责任，建立县级相关部门、乡级政府农村公路管理养护权力和责任清单，形成上下联动、密切配合、齐抓共管的工作局面。</p>	<p>Placing a strong emphasis on accountability, it has issued the Opinions on Deepening Reform of the Management and Maintenance System for Rural Roads, stipulating that provincial and municipal governments should strengthen overall planning, guidance and supervision, and county-level governments should fulfill their primary responsibilities. A detailed list of powers and responsibilities over the management and maintenance of rural roads has been established for relevant departments at the county level and township governments, forming a collaborative working dynamic ensuring close coordination and joint efforts at all levels.</p>
<p>建立农村公路“路长制”（专栏 4），由县、乡两级行政负责人和村（居）委员会负责人担任路长，实现跨部门协同，推动政府主体责任高效落实，使农村公路管理逐步从粗放向精准、从被动向主动、从单打独斗向齐心协力转变。</p>	<p>A road chief system for rural roads (see Panel 4) has been implemented, designating county, township-level administrative heads and village (neighborhood) committee heads as road chiefs to ensure cross-departmental coordination, thereby promoting the efficient implementation of the government’s primary responsibilities, and gradually transforming rural road management from an extensive,</p>

	passive, and fragmented approach to an intensive, proactive, and collaborative one.
专栏 4 农村公路“路长制”	Panel 4 Road Chief System for Rural Roads
为夯实政府责任，特别是压实县级政府主体责任，中国建立了农村公路“路长制”。	To strengthen government accountability, and especially to cement the primary responsibilities of county-level governments, China has established a road chief system for rural roads.
2020 年，印发《关于全面做好农村公路“路长制”工作的通知》，按照“政府主导、属地管理”的原则，建立“总路长+三级路长”体系。	In 2020, the Chinese government issued the Notice on Comprehensively Implementing the Road Chief System for Rural Roads. In accordance with the principle of government-led and locally managed governance, it has established a “1+3” road chief system.
在县域内设立总路长，由县级人民政府主要负责人担任，设立县、乡、村三级路长，分别由县领导、乡镇负责人、村委会负责人担任。	This system consists of a principal road chief at the county level, typically held by top leader of the county people’s government, and road chiefs at the county, township, and village levels, respectively held by heads of the county, township, and village committee.
实行各级路长对总路长负责、下级路长对上级路长负责的责任分工制度。	Under this system, all road chiefs ultimately report to the principal road chief, and road chiefs at lower levels are accountable to road chiefs at higher levels.
各级路长负责推进农村公路设施建设，开展农村公路管理养护，提升运输服务水平，进行沿线隐患整治，加强路域生态环境保护，强化交通运输安全管理等。	Road chiefs at all levels are responsible for advancing rural road infrastructure construction, carrying out rural road management and maintenance, improving transport services, addressing hidden road hazards, strengthening eco-environmental protection, strengthening traffic safety management, etc.
农村公路“路长制”的实施，完善了农村公路县、乡、村三级管理体系，打通农村公路治理“最后一公里”。	The implementation of this system for rural roads has optimized the management of rural roads at the county, township, and village levels, thereby addressing the “last-mile” problem of rural road governance.
截至 2023 年底，共有各级路长 68 万人，有农村公路管理任务的县级行政单位实现了农村公路“路长制”全覆盖。	As of the end of 2023, a total of 680,000 road chiefs at various levels had been appointed, with all county-level administrative units with rural road management responsibilities operating the road chief system.
(二) 建立多元化资金保障机制	2. Developing a Diversified Funding

	Mechanism
农村公路的发展离不开资金的投入和保障，特别是中央和地方各级政府财政资金是保障中国农村公路快速发展的关键。	The development of rural roads relies heavily on funding, particularly from the central and local governments, whose fiscal contributions are essential to ensuring the rapid development of China's rural roads.
各级政府坚持上下联动、统筹推进，逐步构建“政府主导、分级负责、多元筹资、规范高效”的农村公路资金筹措体制机制，有效破解农村公路资金保障难题。	Governments at all levels have maintained close coordination and a unified approach, gradually establishing a rural road funding mechanism characterized by government leadership, tiered responsibilities, diverse funding sources, and procedure-based and efficient management. This approach has effectively addressed the challenges of securing adequate funding for rural road projects.
明确农村公路财政事权与支出责任。	Clarifying the fiscal powers and expenditure responsibilities for rural roads.
推进交通运输领域中央与地方财政事权和支出责任划分改革，将农村公路明确为地方财政事权，细化和夯实各级政府在农村公路方面的财政事权和支出责任，改变过去长期以来“上下不清，左右不明”的局面。	Reforms have been introduced to divide fiscal powers and spending responsibilities between central and local governments in the transport sector, with rural roads explicitly designated as a local fiscal power. By refining and specifying the fiscal powers and spending responsibilities of governments at all levels regarding rural roads, China has addressed the long-standing ambiguity surrounding these fiscal responsibilities.
对地方政府履行农村公路财政事权、落实支出责任存在收支缺口的，上级政府根据不同时期发展目标给予资金支持。	To support local governments facing funding gaps in fulfilling their fiscal powers and expenditure responsibilities for rural roads, higher-level governments will provide financial support based on evolving development goals.
加大各级财政资金支持力度。	Increased financial support from governments at all levels.
政府投入在农村公路建设养护中发挥至关重要的作用，中央通过车辆购置税收入补助地方资金、中央预算内投资、成品油税费改革转移支付等资金渠道，省、市、县三级政府加大各类财政资金投入支持农村公路发展。	Government funding plays a crucial role in the construction and maintenance of rural roads. The central government has allocated funds through various channels, including the vehicle purchase tax revenue, central budgetary investment, and transfer payments from the reform of taxes and fees related to refined oil products. Provincial, municipal, and county

	governments have also increased their financial support to rural road development.
地方政府将农村公路管理机构运行经费和人员基本支出纳入地方一般公共预算，将农村公路发展纳入地方政府一般债券重点支持范围。	Local governments have incorporated the operating expenses and basic personnel costs of rural road management agencies into their general public budgets and have prioritized rural road development in their general bond issuance plans.
农村公路日常养护资金按照不低于县道每年每公里 10000 元、乡道每年每公里 5000 元、村道每年每公里 3000 元的标准执行。	A minimum annual maintenance funding standard of RMB10,000 per kilometer for county roads, RMB5,000 per kilometer for township roads, and RMB3,000 per kilometer for village roads has been implemented.
指导各地用好用足农村客运补贴资金。	The central government has also provided guidance to local governments to maximize the effective use of rural passenger transport subsidy funds.
十年来，累计完成农村公路固定资产投资 4.3 万亿元，累计投入养护资金 1.1 万亿元，其中政府资金均占 80%左右。	Over the past decade, a cumulative investment of RMB4.3 trillion has been made in rural road fixed assets, and RMB1.1 trillion has been invested in maintenance, with approximately 80 percent of the total funding in either category coming from the government.
每年中央财政投入 89 亿元农村客运补贴资金。	The central government contributes RMB8.9 billion annually in subsidies for rural passenger transport.
图 3 农村公路固定资产投资情况	Figure 3 Investment in Rural Road Fixed Assets
利用多元化市场融资方式拓宽融资渠道。	Expanding financing channels through diverse market-based methods.
充分发挥市场融资机制在农村公路发展中的重要作用，积极拓宽资金来源渠道。	China has fully leveraged the critical role of market-based financing mechanisms in rural road development and actively expanded financing channels.
各地区结合实际，通过将农村公路与产业、园区、乡村旅游等经营性项目实行一体化开发等方式创新“农村公路+”投融资模式（专栏 5）。	In line with local conditions, all localities have developed innovative “rural road plus” investment and financing models by integrating rural roads with commercial projects in relation to industries, industrial parks, rural tourism, and other economic activities (see Panel 5).
通过将农村公路管养纳入政府购买服务指导性目录，探索农村公路灾毁保险等方式支持农村公路养护。	To support rural road maintenance, the government has incorporated road management and maintenance in the

	procurement services guidance catalog and explored mechanisms such as disaster insurance for rural roads.
鼓励各类金融机构依法依规加大对符合条件的农村公路建设的支持力度。	It has also encouraged various financial institutions to increase their support for eligible rural road construction projects within the bounds of laws and regulations.
十年来,全国累计使用各类金融机构信贷资金约 8000 亿元用于农村公路发展。	Over the past decade, approximately RMB800 billion in credit funds from various financial institutions have been allocated to rural road development nationwide.
专栏 5 农村公路建设养护资金筹措创新做法	Panel 5 Innovative Financing Methods for Rural Road Construction and Maintenance
地方政府积极探索,在农村公路建设养护资金筹措方面采取创新性举措,一定程度上缓解了农村公路资金短缺的难题。	Local governments have been actively exploring innovative mechanisms for financing rural road construction and maintenance, alleviating the problem of funding shortages to a certain extent.
福建省永安市创新推广“福路贷”融资模式,积极争取政策性金融支持,将农村公路建设与沿线配套设施完善、产业园区和古镇旅游景区开发一体推进,产生的综合收益作为还款来源,保障还本付息,拓宽农村公路建设资金来源。	Yong'an City in Fujian Province has pioneered the “Fulu Loan” financing model. To proactively obtain policy-based financial support, the city has integrated rural road construction with the development of supporting facilities, industrial parks, and tourist attractions in ancient towns. The comprehensive revenues generated from these projects have been used as a source for loan repayment, ensuring timely debt servicing and expanding funding sources for rural road construction.
浙江省丽水市积极探索山区农村公路灾毁保险机制,全市农村公路修复资金到位率从“十二五”时期的 27%提升到“十三五”时期的 96%,显著提高了农村公路抵御风险和应急抢险能力。	Lishui City in Zhejiang Province has been at the forefront of exploring disaster insurance mechanisms for rural roads in mountainous areas. As a result, the funding availability rate for rural road repairs in the city significantly increased from 27 percent during the 12th Five-year Plan period to 96 percent during the 13th Five-year Plan period, greatly increasing the resilience and emergency response capabilities of rural roads.
陕西省汉中市全力争取各级财政、债券等资金,通过资金补助、先养后补等多种方式支持农村公路建设和养护,同时积极探索文旅融合反哺、交通旅游打捆招商、路衍经济开	Hanzhong City in Shaanxi Province has made extensive efforts to secure funds from various levels of government and through bond issuance. The city supports rural road

<p>发等市场化手段，推动项目与资金有效对接，解决自筹资金难题。</p>	<p>construction and maintenance through various means, including providing financial subsidies and implementing a pay-after-maintenance approach. In addition, it has actively explored market-oriented mechanisms such as integrating transport and tourism, joint investment promotion for transport and tourism projects, and developing a “rural roads derivative economy”. These initiatives have effectively aligned projects with funding, addressing the challenges of self-financing.</p>
<p>规范高效用好农村公路发展资金。</p>	<p>Strengthening oversight and efficiency in the use of rural road development funds.</p>
<p>完善车辆购置税补助地方资金转移支付制度，利用“以奖代补”方式支持农村公路建设（专栏6），对各级财政用于农村公路的资金实施全过程预算绩效管理，提高农村公路资金使用效益，加强农村公路资金使用监管，给资金戴上“紧箍咒”。</p>	<p>China has improved the transfer payment system for subsidies to local governments from the vehicle purchase tax revenue, as subsidies for rural road construction are now provided as a type of rewards for good local performance (see Panel 6). All public funds allocated to rural roads are subject to full-cycle budget performance management, ensuring efficient utilization of rural road funds. China has strengthened oversight over the use and management of rural road funds.</p>
<p>在资金管理和使用上建立“谁申报谁负责”“谁使用谁负责”的责任机制，确保资金实际足额拨付到位，并按有关规定向社会公开，接受群众监督。</p>	<p>A responsibility system has been established to ensure accountability for those who apply for funds and those who use them, guaranteeing the full and actual disbursement of funds. Relevant information is disclosed in accordance with applicable regulations for public oversight.</p>
<p>加强农村公路债务风险防控，依法合规筹措债务资金。</p>	<p>China has also intensified debt risk prevention and control for rural road projects, ensuring that debt financing is raised in accordance with laws and regulations.</p>
<p>专栏6 农村公路车购税“以奖代补”</p>	<p>Panel 6 Vehicle Purchase Tax Revenue Is Provided for Rural Road Construction on a Performance Basis</p>
<p>车辆购置税收入补助农村公路建设，是中央财政支持农村公路发展的重要方式。</p>	<p>Allocating vehicle purchase tax revenue to support rural road construction is a key component of the central government’s funding for rural road development.</p>
<p>2021年，为进一步加强车辆购置税收入补助地方资金管理，提高资金使用效益，财政部、</p>	<p>In 2021, to further strengthen the management of local funds subsidized by vehicle purchase</p>

交通运输部颁布《车辆购置税收入补助地方资金管理暂行办法》，采用“以奖代补”方式实施车辆购置税收入补助农村公路建设。	tax revenue and improve the efficiency of fund utilization, the Ministry of Finance and the Ministry of Transport jointly issued the Interim Measures for the Management of Local Funds Subsidized by Vehicle Purchase Tax Revenue, making the funds available to local governments for rural road construction based on their performance.
按“以奖代补”方式，车辆购置税收入补助地方资金年度奖补资金先按一定比例预拨，后清算下达。	Under this model, a portion of the annual vehicle purchase tax revenue is initially allocated as a prepayment, with the remaining funds disbursed after final settlement.
清算资金基于上一年度各省份考核目标任务完成情况，包括建设任务完成情况、养护任务完成情况、地方财政投入情况等。	The final amount is based on each province's performance in achieving the previous year's goals, including the completion of construction and maintenance tasks, as well as local fiscal contributions.
该政策强化绩效导向，将全面预算绩效管理贯穿资金管理全过程，有力发挥了中央资金的杠杆作用，健全地方科学谋划农村公路发展的长效机制。	This policy emphasizes performance by integrating comprehensive budget performance management throughout the entire process of fund management. It effectively leverages central government funds and establishes a long-term mechanism for sound rural road development by local governments.
（三）数字化转型提升治理效能	3. Increasing Governance Efficiency Through Digital Transformation
数字化是提高农村公路治理能力的“助推器”。	Digitalization helps improve governance capacity for rural roads.
坚持“统筹谋划、需求导向、协同共享、安全适用”的原则，推动农村公路建设、管理、养护、运行、服务全流程数字化转型，为构建现代化农村交通运输体系提供支撑。	By adhering to the principles of comprehensive planning, demand-driven development, collaboration and sharing, and safe and applicable technology, China has promoted digital transformation across the entire lifecycle of rural roads, including construction, management, maintenance, operation, and services. This transformation has supported the development of a modern rural transport system.
筑牢农村公路数字化底座。	Solidifying the digital foundation for rural roads.
实施《农村公路基础设施统计调查制度》《公路养护统计调查制度》《道路运输统计调查制度》等，定期开展监测统计，建立基础设施数据库，实现农村公路建、管、养、运全	China has implemented a series of statistical survey systems, including the Rural Road Infrastructure Statistics Survey System, the Road Maintenance Statistics Survey System,

<p>业务链条的在线管理监测，提升农村公路数字化、智能化的统计、监测和管理水平。</p>	<p>and the Road Transport Statistics Survey System. Through regular monitoring and data collection, it has established a comprehensive infrastructure database, enabling the online management and monitoring of all processes related to rural road construction, management, maintenance, and operation. As a result, statistical surveying, monitoring and management of rural roads have been improved through a digital and smart transformation.</p>
<p>开展农村公路“一路一档”信息化建设，实现每条农村公路基础数据信息可查可溯，基本实现农村公路“一张图”管理。</p>	<p>It has also initiated a “one road, one file” information system for rural roads, ensuring that basic data for each road can easily be found online. This initiative has enabled integrated management for rural roads.</p>
<p>深化农村公路数字化应用。</p>	<p>Expanding digital application in rural road management.</p>
<p>结合基础数据，推进技术状况、养护作业、资金分配、应急调度、“路长制”运行、统计管理、出行服务等数据融合，实现信息互通共享。</p>	<p>By combining basic data with information on technical conditions, maintenance operations, funds allocation, emergency dispatch, the road chief system operations, statistical management, and travel services, China has facilitated information interconnectivity and sharing.</p>
<p>创新引入物联网、卫星遥感、云计算、人工智能等先进信息技术，积极探索 AI 自动巡检、无人机智能巡检、路网智慧监测、智慧养护、灾害智慧预警、大数据决策分析等在农村公路领域的应用场景，持续提升农村公路数字化水平。</p>	<p>It has applied advanced information technologies such as the Internet of Things, satellite remote sensing, cloud computing, and artificial intelligence (AI) in rural road management. Through active exploration of application scenarios such as AI-powered automated inspections, unmanned aerial vehicle inspections, intelligent road network monitoring, intelligent maintenance, intelligent disaster early warning, and big data-driven decision-making and analysis in rural road management, China has steadily increased the digitalization level of rural roads.</p>
<p>（四）示范试点带动整体提升</p>	<p>4. Driving Overall Improvement Through Demonstration and Pilot Programs</p>
<p>通过示范创建、试点探索、品牌建设等方式，让典型引路和发挥示范作用，带动提升农村公路整体发展水平。</p>	<p>By establishing demonstration projects, conducting pilot programs, and building business brands, China has facilitated the creation of leading models that drive the</p>

	overall development of rural roads.
开展示范创建活动。	Promoting demonstration projects.
组织开展“四好农村路”全国示范县、城乡交通运输一体化示范县等示范创建活动（专栏7），促进实践创新。	To encourage best practices and innovation, China has organized various demonstration programs, including the creation of national model counties for high-quality rural roads that are properly built, managed, maintained, and operated and model counties for rural-urban transport integration (see Panel 7).
2018 年以来，累计命名“四好农村路”全国示范县 545 个，城乡交通运输一体化示范县 102 个。	Since 2018, it has designated 545 counties as national model counties for high-quality rural roads and 102 for integrated rural-urban transport.
加强经验总结和推广，在“路长制”、信息化应用、资金筹措、交旅融合、客货邮融合、促进共同富裕等领域形成 100 余个典型案例和 150 个农村物流服务品牌。	It has intensified its efforts in documenting and rolling out successful models, resulting in the creation of over 100 exemplary cases and 150 rural logistics service brands in areas such as the road chief system, information technology applications, financing, integration of transport and tourism, integration of passenger, freight, and postal services, and the promotion of common prosperity.
加强试点探索。	Intensifying pilot programs.
试点是探索发展路径、提高管理效能的重要手段。	Pilot programs serve as an essential tool in exploring development paths and increasing management efficiency.
围绕交通强国建设发展目标，开展 15 个“四好农村路”高质量发展交通强国建设专项试点，在政策制度、体制机制、技术创新、融合发展、灾毁保险等方面，探索不同区域、不同领域农村公路高质量发展新路径。	In alignment with the goal of building up its strength in transport, China has launched 15 special pilot programs for high-quality rural roads. These pilots explore new paths for the high-quality development of rural roads in different regions and sectors, covering aspects such as policy measures, systems and mechanisms, technological innovation, integrated development, and disaster insurance.
确定 167 个农村公路管理养护体制改革试点单位，聚焦“路长制、创新养护生产模式、信息化管理、美丽农村路、资金保障、创新投融资机制、信用评价机制、政府考核”8 个领域，推进农村公路管理责任落实、管理机制完善、管理模式创新。	It has identified 167 government agencies in piloting reform of the management and maintenance systems of rural roads. These agencies focus on eight key areas: the road chief system, innovative maintenance models, IT-based management, beautiful rural roads, financial guarantees, innovative investment and financing mechanisms, credit rating

	mechanisms, and government performance evaluation. The goals are to fulfill rural road management responsibilities, improve management mechanisms, and create innovative management models.
专栏 7 示范创建	Panel 7 Creating Demonstration Models
在农村公路相关领域先后开展了“四好农村路”全国示范县、城乡交通运输一体化示范县等示范创建活动，以县级行政单位为创建主体，以示范引领、典型带动，推动“四好农村路”高质量发展、城乡交通运输一体化水平全面提升。	China has launched initiatives encouraging the creation of model counties for high-quality rural roads that are properly built, managed, maintained, and operated and model counties for rural-urban transport integration. By using these examples to set benchmarks and inspire others, it has effectively promoted the high-quality development of rural roads and comprehensively raised the overall level of rural-urban transport integration.
示范创建围绕增强治理能力、完善基础设施网络、提升综合运输服务能力、管养保障责任落实、提高安全保障能力、促进融合发展等方面，指导县级单位开展创建活动，推动区域“四好农村路”高质量发展，全面提升城乡交通运输一体化发展水平。	These demonstration projects have focused on strengthening governance capacity, improving infrastructure networks, enhancing comprehensive transport services, fulfilling responsibilities in guaranteeing effective management and maintenance, raising safety assurance, and promoting integrated development. County-level government agencies have been guided to create demonstration models to promote the high-quality development of rural roads in their localities and comprehensively improve the integration of rural-urban transport.
通过示范创建工作，涌现了一大批发展基础厚实、成效经验突出、示范作用显著的示范县，形成当示范、争典型、比学赶超的生动局面，服务支撑乡村振兴战略全面实施。	These efforts have resulted in a significant number of model counties boasting solid development foundations, outstanding achievements and replicable experience. As more and more counties endeavor to catch up with the model counties, the momentum effectively serves to support the comprehensive implementation of the rural revitalization strategy.
四、农村公路更加舒适、安全、耐久	IV. Safer, More Durable, and More Comfortable Rural Roads
秉持“建设是发展，养护也是发展”的理念，坚持科学养护和全面养护相结合，从提升路况、保障安全、绿化美化等重点入手，持续提升养护效能，提高农村公路服务水平。	Understanding that both construction and maintenance are essential for road development, China engages in scientific and comprehensive maintenance of rural roads. By

	improving road conditions, ensuring transport safety, and carrying out roadside greening and beautification programs, the country has seen a steady improvement in the maintenance efficiency of its rural roads and a growth in their service capacity.
(一) 营造“畅、安、舒、美”的出行环境	1. Creating a Beautiful Environment for Smooth, Safe and Comfortable Travel
农村公路养护成效显著，路况水平、安全水平显著提升，路域环境更加美观，农民群众出行越来越顺畅、越来越安全、越来越舒心。	The effective maintenance of China's rural roads has brought marked improvements to road conditions, transport safety, and the road environment, enabling smoother, safer, and more comfortable travel.
路况水平实现跨越式提升。	Realizing a significant improvement in road conditions.
持续加大养护投入，全面开展日常养护，大力实施养护工程，农村公路养护工程年均比例超 5%。	China has increased investment in rural road maintenance and ensured regular maintenance across the board. It has also launched major maintenance projects for rural roads, accounting for more than 5 percent of rural maintenance mileage annually.
十年来，累计实施修复养护工程 184 万公里，优良中等路率 ^③ 从 79%上升至 91.1%，基本实现“有路必养、养必到位”。	Over the past decade, a total of 1.84 million km of rural roads have been repaired and maintained, raising the proportion of rural roads classified as premier, good, and medium ³ from 79 percent to 91.1 percent, essentially realizing full coverage and guaranteeing quality of maintenance.
图 4 农村公路优良中等路率变化情况	Figure 4 Proportions of Rural Roads Classified as Medium and Above
安全保障能力显著增强。	Achieving a greater capacity for transport safety.
不断加强农村公路基础设施建设，深入排查治理安全隐患，强化农村公路交通安全管理，农村公路本质安全水平和应急保障能力不断增强，道路交通安全形势持续稳定。	China has improved its rural road infrastructure, identified and removed safety hazards, and strengthened transport safety management, achieving greater inherent consistent safety and enabling a better emergency response for rural road transport.
2023 年农村公路一次死亡 3 人以上较大交通事故起数比 2013 年下降 36.5%，一次死亡 10 人以上重特大交通事故起数比 2013 年下降 85.7%。	In 2023, the number of rural road traffic accidents with a death toll of more than three dropped by 36.5 percent from the 2013 figure, and the number of accidents with a death toll of more than 10 fell by 85.7 percent.
路域环境持续优化。	Making continuous progress in optimizing

	the road environment.
扎实开展农村公路路域环境综合整治, 加强洁化、绿化、美化, 农村公路实现“路田分家”99 万公里、“路宅分家”62 万公里, 农村公路更加整洁、美丽。	China has taken comprehensive measures to make rural roads tidy, green and beautiful. In total, 990,000 km of roads have been separated from farmlands and 620,000 km of roads have been separated from residential housing, making these rural roads more neat and pleasant.
(二) 规范化专业化养护	2. Promoting Standard and Professional Road Maintenance
农村公路“三分建, 七分养”。	A well-functioning rural road network relies 30 percent on construction and 70 percent on maintenance.
健全完善养护技术体系, 发展先进适用的养护技术, 不断提高养护效能, 保持农村公路完好、畅通。	To ensure intact facilities and smooth traffic for rural roads, China has improved the technical framework for maintenance, developed advanced and applicable maintenance technologies, and raised maintenance efficiency.
积极推行养护科学决策。	Promoting scientific decision-making for road maintenance.
将养护科学决策纳入到养护工作全过程、各环节, 遵循全寿命周期综合效益最佳理念, 以公路技术状况检测评定、养护需求分析、养护方案确定为基础, 综合考虑技术、经济、安全、环保等因素, 合理确定养护工程项目, 为养护工作实施提供科学依据。	China has integrated scientific decision-making into the entire process of rural road maintenance, optimal comprehensive benefits throughout the full lifecycle of roads. Based on technical condition assessment of roads, maintenance needs analysis, and maintenance planning, and leveraging technical, economic, safety and environmental considerations, the country makes informed decisions on its maintenance projects, thus providing a structured framework for its rural road maintenance work.
研发路面自动化检测车、便携式检测装备, 应用大数据及人工智能等技术, 探索采用与养护巡查、路政巡查、客货运输结合的方式, 加快推进农村公路路况自动化检测, 2023 年农村公路路面自动化检测比例达到 70%。	To promote the automatic examination of rural road conditions, China has applied R&D efforts to automatic vehicles and portable devices, and applied big data and AI technologies to automatic examination in the process of road maintenance inspection, road administration inspection, and passenger and freight transport. The automation rate of road surface condition examination reached 70 percent in 2023.
深化检测数据分析应用, 更加有力支撑养护	Analysis and application of data collected from

科学决策，农村公路养护精细化、精准化水平持续提升。	road condition examination has also been strengthened to support scientific decision-making, leading to more refined and precise maintenance of rural roads.
规范实施养护作业。	Standardizing road maintenance operations.
出台《农村公路养护技术规范》《农村公路技术状况评定标准》《农村公路养护预算编制办法》等技术标准规范。	China has promulgated a range of technical standards and specifications, including Technical Specifications for Maintenance of Rural Highway, Standards for Rural Highway Condition Assessment, and Budget Compilation Method for Rural Road Maintenance.
加强日常养护，开展日常巡查、日常保养和小修，保持农村公路处于良好的技术状况。	To keep rural roads in good condition, the government has strengthened regular maintenance by carrying out routine inspections, daily upkeep operations, and necessary minor repairs.
重视预防养护，科学安排预防养护工程，有效延长农村公路使用寿命；	Special emphasis is given to preventative maintenance, with structured maintenance projects in place, which effectively extend the service life of rural roads.
实施修复养护，加强专业化设计，针对性确定养护对策；	Repair maintenance has been implemented through professional design and targeted measures.
做好专项养护，加快提升或恢复服务功能；	Specialized maintenance has been improved, allowing quicker upgrading or restoration of services.
开展应急养护，突发情况造成农村公路损毁、中断、产生重大安全隐患时，尽快恢复安全通行。	Emergency maintenance has been prioritized, enabling the quickest possible resumption of safe travel in emergencies resulting in road damage, traffic disruptions, or major transport safety hazards.
创新多元养护组织模式。	Creating diverse organizational models of road maintenance.
有序推进农村公路养护市场化改革，政府与市场合理分工的养护生产组织模式逐步建立，养护作业更加科学规范高效。	China has systematically advanced market-oriented reform of rural road maintenance and taken steps to develop a rational division of work between the government and the market in organizing road maintenance. This has made maintenance operations more structured, standardized and efficient.
农村公路预防养护、修复养护等养护工程通过招投标方式，委托专业队伍实行专业化养	Preventative and repair maintenance projects are allocated through bidding and tendering,

护。	recruiting professional teams to provide specialized maintenance services.
鼓励采用干线公路建设和养护与农村公路打捆招标、农村公路片区化养护总承包、农村公路建设和养护捆绑招标等新型生产组织模式。	Novel organizational models of rural road maintenance are encouraged, such as combined tendering for the construction and maintenance of trunk highways and rural roads, overall contracting for zonal maintenance of rural roads, and combined tendering for rural road construction and maintenance.
农村公路日常养护采用群众性养护和专业化养护相结合的方式，积极吸收沿线群众参与，强化技能培训，逐步建立相对稳定的群众性养护队伍。	Regular maintenance combines general and professional maintenance. Residents along the routes are actively involved through technical training to build stable teams for general maintenance.
推动“四新”技术应用。	Applying new technologies, techniques, materials and equipment.
新技术、新工艺、新材料、新设备的推广和应用，对于提高公路养护质量、延长公路使用寿命、降低养护成本、促进公路行业可持续发展具有重要作用。	Application of these four elements plays a significant role in raising road maintenance quality, extending road service life, reducing maintenance costs, and facilitating sustainable development of the road transport industry.
采用就地冷再生、厂拌热再生、水泥路面白改黑碎石化利用等工艺，废旧路面材料、废旧轮胎、工业固废、建筑废弃物等废弃物循环利用技术，推动轻量化高强钢等新材料在安全设施上的推广应用，应用新型摊铺机、小型灌缝机等设备，在节约投资、缩短工期、节能环保等方面取得了良好效果。	New techniques for road maintenance have been employed, such as cold in-place recycling of asphalt pavement, hot central plant recycling of asphalt pavement, and rubblization for an asphalt overlay of cement pavement. New technologies for waste recycling have been applied, covering discarded pavement materials, worn-out tires, solid industrial waste, and construction waste. New materials have been applied in road safety facilities, including lightweight high-strength steel. New equipment has been introduced, such as new paver models and small pavement crack filling machines. These new applications have produced significant results in reducing costs, shortening project duration, conserving energy, and protecting the environment.
（三）把安全摆在首要位置	3. Prioritizing Transport Safety
强化农村公路安全隐患治理和基础设施安全防护，切实保障人民群众安全、便捷出行，让农村公路成为安心之路、畅通之途。	China has redoubled its efforts to address rural road safety hazards and improve safety infrastructure, ensuring safe and easy travel and providing reliable and smooth transport.
加强设施安全防护。	Strengthening safety facilities.

严格执行安全设施与主体工程同时设计、同时施工、同时投入使用的“三同时”制度。	China enforces a system for synchronizing the design, construction and commissioning of road safety facilities with the road construction project.
扎实开展公路安全设施和交通秩序管理精细化提升行动，实施和完善农村公路安全生命防护工程，持续深化农村公路“千灯万带”示范工程，强化农村公路安全隐患整治。	Solid actions have been taken to further refine the management of rural road safety facilities and traffic order. To address rural road safety hazards, the country has launched and refined a project for travel safety and a pilot project for greater coverage of traffic lights and speed bumps.
十年来，累计实施农村公路安全生命防护工程 123 万公里，标识标线、减速带、信号灯等安全设施设置不断完善，农村公路安全防护水平显著提高。	Over the past decade, the rural road travel safety project has covered a total road length of 1.23 million km, and consistent improvement has been made in safety facilities, including road signs, pavement markings, speed bumps, and traffic lights, ensuring a rising level of rural road safety.
实施危旧桥梁改造。	Renovating old and dangerous bridges.
桥梁是交通网络中的关键节点性工程，实施危旧桥梁改造，是保障桥梁安全运营、维护农村公路安全畅通的重要基石。	Bridges are key constructions in transport networks. Renovation of old and dangerous bridges underpins safe bridge operations for smooth rural road transport.
加强桥梁管理和重点桥梁定期检测，严格落实责任划分、信息公开、资金保障等桥梁安全运行“十项制度”，扎实开展农村公路桥梁护栏安全防护能力提升、独柱墩桥梁运行安全提升、桥梁信息和限载标志规范设置等专项工作。	China has strengthened bridge management and regular safety inspection for key bridges, and implemented the 10 regulations for bridge operation safety, including strict accountability, information disclosure, and funding guarantees. It has also carried out special programs on highway bridge guardrail safety, single-column pier bridge safety, and standardization of bridge information and bridge load limit signs for rural road transport.
深入开展公路危旧桥梁改造行动，十年来，累计实施农村公路危旧桥改造 5.8 万座，危桥总数逐年下降，一二三类桥梁 ^④ 比例从 83.2% 上升至 98%，农村公路桥梁安全耐久水平不断提高。	Over the past decade, a total of 58,000 old and dangerous bridges in the rural road network have been renovated; the total number of dangerous bridges has decreased on a yearly basis; the proportion of Grade I, II and III bridges ⁴ has increased from 83.2 percent to 98 percent; and the durability of rural highway bridges has been consistently improved.
（四）增强路网韧性，提升保通保畅能力	4. Improving Road Network Resilience for Greater Reliability
坚持人民至上、生命至上，统筹高质量发展	Putting people and lives first, and coordinating

和高水平安全，健全完善农村公路防灾减灾体系，持续提升农村公路网络安全韧性与应急保障能力，切实维护人民群众生命财产安全。	high-quality development and high-level safety, China has improved disaster readiness and mitigation for rural road transport, and strengthened safety resilience and emergency response for the rural road network in order to ensure effective protection of lives and property.
强化应急保障。	Increasing emergency preparation.
中国地域辽阔，山川河流地势复杂，洪涝、地质等灾害多发频发，防灾减灾不仅是应急之举，更是长久之计。	China has a vast territory and a complex terrain with countless rivers and mountains prone to floods and geological disasters. Disaster readiness and mitigation are not only emergency measures for the country but also its long-term priorities.
出台《关于进一步提升农村公路防灾减灾能力的意见》，健全农村公路突发公共事件应急管理机制，提升应对突发公共事件和安全应急保障防灾减灾能力。	China has promulgated the Guidelines on Further Improving Disaster Readiness and Mitigation for Rural Road Transport and strengthened the public emergency management mechanisms for rural roads, ensuring better response to public emergencies, road safety incidents, and natural disasters.
依托国家区域性公路交通应急装备物资储备中心，推动地方公路交通应急物资储备中心建设，布局完善、品类完备、随调随用的交通应急物资储备体系逐步完成。	Building upon the national equipment and material reserve centers for highway emergency response in different regions, China has made progress in establishing local reserve centers for highway emergency response supplies. As a result, a highway emergency reserve system is taking shape, characterized by well-designed distribution, a full range of supplies, and quick response.
有序实施农村公路管理站、道班等场所拓展改造，完善应急装备、物资、工具储备功能。	China has carried out systematic expansion and renovation of rural road management stations and maintenance squads, improving their reserve functions for emergency response equipment, supplies and devices.
加强专群结合的应急抢险队伍建设，强化应急预案演练、人员教育培训和运力储备，应急处置能力不断提升。	China has built up rural road emergency rescue forces composed of both professionals and the general public, and boosted their emergency response capabilities by intensifying drills for contingency plans, improving personnel training, and increasing transport capacity.
加强巡查巡护。	Strengthening road safety inspection.
防微杜渐，未雨绸缪，常态化开展日常巡查检查，强化重点时段重点路段巡查防护。	To identify and remove safety hazards for rural road transport, China has strengthened targeted

	inspections on key road sections during critical time periods in addition to regular inspection on all road sections.
分类分级细化自然灾害应对措施，汛期和台风等恶劣天气来临前及时清理疏通边沟、排水沟等排水设施，加强对高边坡、急弯陡坡、临水临崖、路侧险要、自然灾害风险点、历史灾毁点等重点路段集中排查，实施必要的防护工程。	Categorized, graded and specialized measures are in place for natural disaster response. In preparation for imminent floods, typhoons, and other severe weather, drainage facilities including side ditches and drainage ditches are cleared in a timely manner. Intensified inspections are carried out on key road sections such as those with high slopes, sharp turns, steep gradients, proximity to cliffs, water bodies or other dangers, natural disaster risks, and historical damage from disasters. Essential precaution projects are implemented where necessary.
遇到低温雨雪冰冻等恶劣天气，加大对易积雪结冰等重点路段巡查检查，提前撒布防滑料、除冰剂、融雪剂等，及时除冰除雪，强化标识提醒和警示预警，保障路网畅通。	Under severe weather, such as low temperatures, rain, snow, and freezing conditions, targeted inspections are carried out on key road sections prone to snow accumulation or ice formation; preemptive measures such as spreading anti-skid materials, deicing agents, and snow-melting agents are employed, and ice and snow are removed to prevent accumulation; and safety reminders, preventive alerts, and warning signs are better used to ensure a smooth road network.
强化抢通保通。	Ensuring road access for emergency response.
加强监测预警和调度指挥，动态掌握气象变化和自然灾害预警信息，及时启动防御响应或应急响应。	China has strengthened safety monitoring, early warning, and traffic dispatch for its rural road network, providing dynamic information on weather changes and early warning on disasters, and activating timely preparatory or emergency response.
建立预警响应联动和直达基层一线临灾预警“叫应”机制，强化现场应急避险能力。	The country has put in place a coordinated early warning and response mechanism and a direct warning mechanism for prompt frontline response to imminent disasters, making onsite emergency preparation and evacuation more effective.
及时打通抢险救灾“生命线”，保障应急人员和装备安全顺畅通行。	Emergency routes are opened up in a timely manner to ensure safe and smooth transport of rescue personnel and equipment.

<p>有序有力组织开展农村公路抢修抢通，加大资金支持力度，抓好灾后恢复重建，保障群众安全出行和恢复生产生活。</p>	<p>To ensure safe traffic and orderly living and working conditions after disasters, the government has organized efficient emergency road repairs, increased financial support, and facilitated post-disaster recovery and reconstruction.</p>
<p>五、促进农村地区“人享其行、物畅其流”</p>	<p>V. Smooth and Convenient Passenger and Freight Transport in Rural Areas</p>
<p>持续致力于满足农民群众日益增长的美好生活需要，不遗余力地拓展农村地区客货运输服务覆盖范围，提升城乡交通运输服务均等化水平，实现城乡之间人员、物资的顺畅流动，有力推进城乡要素平等交换和公共资源均衡配置。</p>	<p>Dedicated to meeting people’s growing desire for a better life, the Chinese government spares no effort in expanding the coverage of passenger and freight transport in rural areas and providing equitable access to transport services in both urban and rural areas. By doing so, it delivers smooth movement of people and goods, equal exchanges of production factors, and balanced allocation of public resources between urban and rural areas.</p>
<p>(一) 农民出行更便利</p>	<p>1. Making Travel More Convenient for Rural People</p>
<p>突出农村客运公益属性，以提升均等化水平、优化供给模式、构建长效机制等为重点，持续完善农村客运体系。</p>	<p>The Chinese government treats rural passenger transport as a core element of public services, and continues to improve it with the focus on ensuring equitable access, optimizing supply models, and establishing long-term mechanisms.</p>
<p>千乡万村通客车。</p>	<p>Providing all villages with access to bus services.</p>
<p>为了让每一位老百姓都能“出家门、上车门、进城门”，各地结合实际，通过农村公共汽电车、农村班车客运、区域经营、预约响应等多种形式，形成了以县城为中心、乡镇为节点、建制村为网点，遍布农村、连接城乡、纵横交错的农村客运服务网络，乡村之间、城乡之间连接更加紧密。</p>	<p>To ensure easy access to bus services for every rural resident, local authorities have put in place extensive rural passenger transport networks that provide full coverage and connect urban and rural areas, with county seats as hubs, towns and townships as nodes, and administrative villages as terminuses. Adapted to local conditions, multiple models have been adopted, including regular buses (both gasoline and electric vehicles), shuttle buses, localized services, and booking-based operations. Connections between rural areas and between urban and rural areas have thus become closer.</p>
<p>十年来，累计新增通客车乡镇超过 1100 个、建制村超过 4.5 万个，具备条件的乡镇和建</p>	<p>In the past decade, more than 1,100 towns and townships and 45,000 administrative villages</p>

制村通客车比例均达到 100%。	have been newly integrated into the networks. As a result, all towns, townships and administrative villages where conditions allow have access to bus services.
完善可持续发展政策。	Improving policies for sustainable development.
农村地区客运服务需求点多、面广、运营成本高，为实现农村客运可持续运营，建立了农村客运补贴制度，对农村客运车辆购置、平台建设和运营过程进行补贴，不断探索政府购买服务、“以奖代补”等新模式。	Meeting a variety of travel needs, public passenger transport services in rural areas have extensive coverage and high operating costs. To ensure sustainability, a subsidy system has been established for vehicle purchase, platform development, and transport operations. New models have also been explored, such as promoting government purchase of services and providing subsidies on a performance basis.
在客流相对较少的地区，根据经营区域内群众出行需求灵活采用区域经营、预约响应等农村客运形式，实现服务质量与运营成本双赢。	To ensure both service quality and cost efficiency in areas with low passenger volumes, flexible models adapted to local travel needs have been adopted, such as localized and booking-based operations.
提升农村客运服务质量。	Raising the quality of passenger transport services.
为了最大程度满足广大农民群体性、潮汐性、节令性出行需求，不断创新农村客运运营模式，在重点时段开通学生班、赶集班、春耕班、秋收班、旅游专线等特色服务。	To best meet rural residents' group-specific, periodic, and seasonal travel needs, innovative operational models of rural passenger transport have been devised. These include providing special services in busy periods for school commuting, for spring plowing, for fall harvesting, for trips to local fairs, and for tourism.
推动城镇化水平较高的地区公交线路向乡村延伸和农村客运班线公交化改造，不断提升城乡客运均等化水平。	In areas with a higher level of urbanization, bus lines have been extended into rural areas, and rural shuttle lines have been transformed into bus lines, to give urban and rural areas more equitable access to passenger transport services.
在农村客运车辆安装动态监控终端，因地制宜建设农村客运信息系统，农村客运服务的精准性和安全性进一步提升。	Real-time monitoring devices have been installed on public passenger vehicles, and information systems have been built based on local conditions. Therefore, the accuracy and safety of rural passenger transport services have increased.
农村客运车辆车况明显提升，截至 2023 年	Vehicle conditions have also improved notably.

底，农村客运车辆达 34.2 万辆，新能源、中高等级车辆比重不断提高。	By the end of 2023, a total of 342,000 rural passenger vehicles were in service, with a steady increase in the proportion of new energy vehicles and middle- and high-range vehicles.
高效、便捷、实惠的农村客运服务，充分赢得了人民群众的认可和口碑。	Efficient, convenient and affordable rural passenger transport services have won public praise.
(二) 农村物流“活”起来	2. Expediting Logistics for Rural Areas
通过建节点、拓网络、抓服务，全力破解农村物流发展的短板和瓶颈，“城货下乡、山货进城、电商进村、快递进村”城乡双向运输进一步打通，为农业农村现代化注入新动能。	Through building nodes, expanding networks, and improving services, the government has exerted full efforts to shore up weaknesses and remove bottlenecks in rural logistics. Transport channels have been further widened for the two-way flow of goods between urban and rural areas, and to give villages access to e-commerce and express delivery, adding new momentum to the modernization of agriculture and rural areas.
构建农村物流网络节点体系。	Building nodes on rural logistics networks.
统筹城乡物流发展，加大对农村物流节点建设资金支持力度，截至 2023 年底，各地整合客运站、货运站、邮件快件处理场地、供销合作社仓储物流设施、电商仓储场地等建成 1267 个县级寄递公共配送中心，整合利用邮政、快递、供销、电商等村内设施资源建设 28.9 万个村级寄递物流综合服务站，推动完善城乡物流服务设施体系，有效促进了城乡物流的畅通快捷。	China is working to coordinate logistics development in urban and rural areas, and increase financial support for building rural logistics nodes. By the end of 2023, local authorities had built 1,267 county-level delivery centers, making use of passenger and freight hubs, mail and delivery processing sites, the storage and logistics facilities of supply and marketing cooperatives, and e-commerce warehouses; they had also built 289,000 comprehensive delivery and logistics service stations in villages by utilizing local facilities and resources for postal services, courier delivery, supply and marketing, and e-commerce. The urban-rural framework of logistics service facilities has been improved, promoting smooth and efficient logistics between urban and rural areas.
创新农村物流服务模式。	Creating innovative rural logistics service models.
深化农村物流与客运、邮政、商贸融合发展，因地制宜打造适合当地发展实际的特色农村物流服务模式，提高农村地区物流资源整合效率，先后打造 4 批 150 个农村物流品牌，“客运+货运两网合一”“网络平台货运	China has further integrated the development of rural logistics, passenger transport, postal services, and commerce. Special rural logistics service models have been tailored to local conditions, to raise the integration of rural

<p>+农村物流”“特色产业+农村物流”“电子商务+农村物流”等农村物流新模式蓬勃发展，以点带面提升农村物流综合服务能力。</p>	<p>logistics resources. To date, a total of 150 rural logistics brands have been created in steps, and new rural logistics service models have emerged, including the integration of passenger and freight transport networks, Online Freight Platforms Plus Rural Logistics, Local Industries Plus Rural Logistics, and E-commerce Plus Rural Logistics. These have spurred a rise in the comprehensive service capacity of rural logistics.</p>
<p>(三) 城乡交通运输更均衡</p>	<p>3. Achieving Greater Balance in Urban and Rural Transport</p>
<p>统筹推进城乡交通运输体系协调发展，稳步提升城乡交通运输均等化服务水平，加速人流、物流在城乡间流动，为县域经济发展注入新活力。</p>	<p>Coordinated measures have been taken to balance transport development across urban and rural areas. They have driven equitable access to transport services, expedited the flow of people and goods between urban and rural areas, and added new momentum to the development of county economies.</p>
<p>完善城乡交通运输发展保障体系。</p>	<p>Optimizing the institutional framework for urban and rural transport development.</p>
<p>科学进行顶层设计，发布《关于稳步推进城乡交通运输一体化提升基本公共服务水平的指导意见》，加快推进城乡交通运输基础设施一体化、城乡客运服务一体化、城乡货运物流服务一体化建设，营造城乡交通运输一体化发展环境。</p>	<p>As part of its well-conceived top-level design, China has issued the Guidelines on Steadily Advancing the Integration of Urban and Rural Transport and Improving Basic Public Services. The goal is to speed up the integration of urban and rural transport infrastructure, of urban and rural passenger transport, and of urban and rural freight transport and logistics, and create a favorable environment for the integration of urban and rural transport.</p>
<p>建立考核评估机制，开展城乡交通运输一体化发展水平年度评估工作，有针对性地推进城乡交通运输一体化发展。</p>	<p>China has established evaluation mechanisms, conducted annual evaluations, and subsequently taken targeted measures to promote the integration of urban and rural transport.</p>
<p>城乡交通运输一体化发展水平达到良好以上（含优秀）级别的县级行政区占比达93.6%。</p>	<p>The evaluations show that 93.6 percent of county-level administrative units have reached a good or even excellent level of urban-rural transport integration.</p>
<p>加强城乡交通运输服务网络衔接。</p>	<p>Strengthening connections between urban and rural transport networks.</p>
<p>实现城乡客运服务网络与重点铁路客运站、机场、码头的一体化衔接和换乘，提升</p>	<p>Urban and rural passenger transport networks have been integrated with key railway stations,</p>

城乡交通运输服务网络运营水平。	airports and ferry terminals for easy connections and transfers, helping to improve the overall operation of urban and rural transport networks.
针对农业产业发展需求,实现城乡物流一体化配送。	To meet the development needs of agricultural industries, integrated urban and rural logistics delivery services have been realized.
根据农村产业特点,推动专业化和综合性城乡物流体系建设,尤其是电商、专业配送、冷链配送等服务体系,提高农产品流通效率。	Based on the characteristics of rural industries, China has pressed ahead with the development of professional and comprehensive urban-rural logistics systems, particularly those for e-commerce, specialized delivery, and cold-chain delivery, to ensure more efficient flows of agricultural products.
加强交通运输资源整合,促进跨业融合发展,推进城乡交通运输“路、站、运、邮”协调发展,以“城乡交通+”为范式持续推进城乡交通服务产业融合发展。	In an effort to integrate urban and rural transport services on the basis of the Urban-Rural Transport Plus paradigm, China has strengthened the integration of transport resources, promoted cross-sector integrated development, and advanced the coordinated development of roads, stations, passenger transport, freight transport, and mail delivery.
加快推进农村客货邮融合发展。	Accelerating the integration of rural passenger transport, freight transport, and mail delivery.
为统筹解决农村客运可持续运营、快递下乡进村和农产品出村进城难题,发布《关于加快推进农村客货邮融合发展的指导意见》,坚持“政府引导、市场主导”,深入推进农村客货邮运行机制、基础设施、运输线路、运营信息等共建共享,加强资源统筹利用,推动融合发展(专栏8)。	To achieve sustainable operation of rural passenger transport, ensure rural access to delivery services, and coordinate the access of agricultural products to urban markets, the Chinese government has released the Guidelines on Accelerating the Integrated Development of Passenger Transport, Freight Transport, and Mail Delivery in Rural Areas. Following the principle of letting the government play a guiding role and the market a dominant role, China has further promoted the co-building and sharing of the operational mechanisms, infrastructure, lines and information, and strengthened the coordinated utilization of resources, in order to promote the integrated development of rural passenger transport, freight transport, and mail delivery (see Panel 8).
截至2023年底,所有省份和超70%地级以	By the end of 2023, all provincial-level

<p>上城市建立了交通运输、邮政、商务、供销等部门共同参与的工作机制，共开通农村客货邮合作线路 1.1 万余条，共建成县、乡、村三级客货邮服务站点 9 万余个，形成“客运邮路”“货邮同网”等典型模式，有效巩固了通客车成果，农村物流、邮政快递降本增效取得明显进展，带动了农村电商、特色产业等蓬勃发展。</p>	<p>administrative units and more than 70 percent of cities at or above the prefectural level had established joint working mechanisms in which transport, postal, commerce, and supply and marketing departments are all participants. They had opened more than 11,000 integrated passenger, freight and mail lines, and built more than 90,000 service stations at county, township and village levels, establishing standard models such as “passenger transport vehicles carrying mail” and “freight and mail sharing the same networks”. These have effectively consolidated rural access to bus services, and markedly lowered the costs and increased the efficiency of rural logistics and mail delivery, providing impetus for the vigorous development of rural e-commerce and industries.</p>
<p>专栏 8 加速客货邮融合，助力产业振兴发展</p>	<p>Panel 8 Accelerating the Integration of Passenger Transport, Freight Transport, and Mail Delivery to Boost Rural Industries</p>
<p>湖南省岳阳市汨罗市自开展农村客货邮融合工作以来，以“全域公交”服务体系为依托，整合邮政、供销、快递网点、商店超市等资源，建设市级客货邮融合发展运营中心和分拣中心，自主开发客货邮信息调度系统，设立专项引导资金，构建了资源共享、集约高效的农村客货邮融合发展体系，日均农村邮件快件数量达 4 万余件。</p>	<p>Since it started integrating rural passenger transport, freight transport, and mail delivery, Miluo, a county-level city in Hunan Province, has coordinated resources including shops, supermarkets, postal services, delivery networks, and supply and marketing cooperatives, and built a city-level operation center and a mail-sorting center relying on its citywide bus service system to integrate passenger transport, freight transport, and mail delivery. It has developed its own information and dispatch system for coordinating the three services, established a special guiding fund, and put in place a high-efficiency system that shares resources across all these services. The average number of daily mail and packages has surpassed 40,000.</p>
<p>汨罗市通过农村客货邮融合与电商协同发展，加快培育农村产品产业，带动特色农产品上行，推动客货邮融合更好地服务乡村振兴战略实施。</p>	<p>Through coordinating these integrated services with e-commerce, Miluo has moved faster to develop rural products and industries, driving the business of agricultural specialties and enabling integrated services to better support the rural revitalization strategy.</p>

2023年,农村客货邮体系助力新增销售额约5000万元,直接为农民创收近800万元。	In 2023, the rural passenger transport, freight transport, and mail delivery system contributed additional sales volume of about RMB50 million, directly creating an income of nearly RMB8 million for the rural population.
六、道路通达促进百业兴、农民富、乡村美	VI. Interconnected Roads Bring Prosperity to All Industries, and Help Improve People's Lives and the Environment in Rural Areas
修建一条农村公路,串联一路美景、带动一片产业、发展一地经济、造福一方百姓。	Rural roads help to connect beautiful scenery, drive the development of local industries, grow the local economy, and benefit the local people.
农村公路的建设和发展,有力支撑了农村经济社会的全面发展,为助力乡村全面振兴、加快农业农村现代化步伐提供坚强服务保障。	The construction and development of rural roads provides strong support for the comprehensive development of the rural economy and society, and lays the groundwork for advancing all-round rural revitalization and accelerating agricultural and rural modernization.
(一) 打开农民“致富之门”	1. Creating a Path to Prosperity for Rural People
“要想富,先修路”。	“If you want to become better-off, build a road.”
在扶贫相关规划与政策指引下,以超常规举措和力度,加快贫困地区农村交通发展。	Guided by poverty alleviation programs and policies, China has taken extraordinary steps and made an enormous effort to expedite the development of rural transport in poor areas.
2014年以来,贫困地区新改建农村公路超过140万公里,新增超过4.5万个乡镇和建制村通客车,2019年实现具备条件的乡镇和建制村通硬化路,2020年实现具备条件的建制村通客车,兑现了小康路上不让任何一地因交通而掉队的承诺,破解了长期以来制约贫困地区经济社会发展的瓶颈,为广大农民迈入全面小康奠定了坚实基础。	Since 2014, more than 1.4 million km of rural roads have been built or upgraded in previously poor areas, and more than 45,000 towns, townships and administrative villages have joined the list with access to bus services. All towns, townships and administrative villages where conditions allow had been connected to paved roads by 2019, and all such villages had been connected to bus services by 2020, fulfilling the promise that no region would be left behind because of inadequate road coverage on the journey towards prosperity. Better transport has cleared the bottlenecks that had long delayed economic and social development in poor areas, and has laid a solid foundation for rural people to realize moderate prosperity in all respects.
农村地区交通条件的持续改善吸引资本、项	The steady improvement of transport facilities

<p>目和人才向农村流动，创造更多就业机会，拓宽农民群众致富增收渠道。</p>	<p>in rural areas has attracted more capital, projects and talent to the countryside, creating more job opportunities and broadening the avenues for income growth.</p>
<p>各地还通过农村公路建设项目以工代赈（专栏9）、开发农村公路公益性岗位等方式进一步拓宽农民群众就业渠道，实现农民群众就近就地就业增收。</p>	<p>In order to expand employment channels further, and help rural people to find jobs close to their homes and boost their incomes, local governments have encouraged disadvantaged people to work on rural road construction projects (see Panel 9) and developed public welfare posts in rural road maintenance.</p>
<p>目前，农村公路建设项目以工代赈方式年吸纳农村劳动力约8万人，人均年增收约8500元；农村公路管理与养护领域提供就业岗位约85万个，人均年收入约1.3万元。</p>	<p>At present, rural road construction projects provide work for about 80,000 people in need as a form of relief, enabling an annual average per capita income increase of around RMB8,500; and about 850,000 jobs are provided in rural road management and maintenance, offering an annual average per capita income of approximately RMB13,000.</p>
<p>专栏9 农村公路建设和养护领域推广以工代赈</p>	<p>Panel 9 Promoting Work Relief Programs in Rural Road Construction and Maintenance</p>
<p>“以工代赈”是指政府投资建设基础设施工程，受赈济者参加工程建设获得劳务报酬，以此取代直接赈济的一项扶持政策，主要目的是向参与工程建设的群众发放劳务报酬、开展技能培训，促进其就近就地就业增收。</p>	<p>Work-relief programs are a policy measure for people in need to earn an income from working on government-funded infrastructure projects instead of receiving direct relief. The main goals are to provide wages to them through employment, offer them skills training, and help them find jobs in places close to their homes and boost their incomes.</p>
<p>农村公路建设和养护投资规模大、受益面广、带动能力强，吸纳当地群众就业潜力大。</p>	<p>Investment in rural road construction and maintenance is a large-scale initiative, bringing a wide range of benefits and driving the huge potential to create jobs for local people.</p>
<p>近年来，我国强化组织指导，印发通知推广以工代赈，编制以工代赈实施指南，对以工代赈实施范围和对象、工作流程和主要内容等进行规范和说明。</p>	<p>In recent years, the government has strengthened organization and guidance, and issued notices within the industry to promote work-relief programs. Implementation guidelines for work-relief programs have been formulated to provide clear definitions and instructions regarding the scope, target beneficiaries, procedures and activities of work-relief programs.</p>
<p>农村公路建设和养护领域推广以工代赈方</p>	<p>Work-relief programs in the construction and</p>

式成效显著，实施项目数和吸引农村劳动力逐年增加，不仅帮助农民群众就近就地就业增收，也提升了劳动技能，激发其依靠自身劳动增收致富的内生动力。	maintenance of rural roads have achieved remarkable results, providing growing numbers of projects and attracting more rural residents every year. By providing local jobs and skills training, the programs help to motivate people in need to earn their living and become prosperous through work.
(二) 推进乡村全面振兴	2. Advancing Rural Revitalization Across the Board
产业兴旺是乡村振兴的重要基础。	Thriving businesses are an important pillar of rural revitalization.
坚持把农村公路融入农村地区经济发展全局,推动农村地区“因路而兴”“因路而富”“因路而美”。	The government continues to integrate rural roads into the overall economic development of rural areas, ensuring that the vast countryside is finding greater prosperity and becoming more attractive.
促进乡村产业现代化。	Supporting modernization of rural industries.
立足农村地区资源禀赋，结合县乡级国土空间规划，引导农村公路与产业园区等协同布局，加快通往主要特色产业节点的农村公路建设，改善农村主要经济节点对外交通条件，发展“农村公路+特色农业”，保障农业现代化发展。	Based on the local availability of resources in rural areas, and taking into account territorial space planning at county and township levels, the government continues to coordinate the network of rural roads and the layout of industrial parks, accelerate the construction of rural roads connected to major local businesses, improve traffic access to key economic nodes in the countryside, and develop the model of Rural Roads Plus Local Industries, ensuring agricultural modernization.
助推乡村旅游发展。	Boosting rural tourism.
结合地方自然景观、文化底蕴，合理规划农村公路，加强农村公路与乡村文旅资源对接，打造精品主题旅游线路（专栏10），全面拓展农村公路服务附加值，让乡亲们世代守护的山川秀色，成为游人如织的风景名胜，推动乡村旅游赋能乡村振兴。	Taking into account local natural landscapes and cultural heritage, the government emphasizes rational planning of rural roads. It works to connect rural roads with cultural and tourist resources, create high-quality themed tourist routes (see Panel 10), expand the comprehensive added value of rural road services, create popular tourist destinations from beautiful landscapes preserved by generations of villagers, and boost rural revitalization through rural tourism.
盘活农村地区特色资源。	Making efficient use of distinctive resources in rural areas.

<p>推进“农村公路+特色资源”，将农村公路发展与当地能源矿产等自然资源相融合，坚持公路围绕产业建，实现路产融合，为乡村经济发展提供新动能。</p>	<p>Efforts have been made to promote the model of Rural Roads Plus Local Resources, which integrates the development of rural roads with local natural resources such as energy and minerals. Transport departments have been committed to providing better access to local industries in order to integrate roads and businesses and create new momentum for rural economic development.</p>
<p>专栏 10 以路为媒，将旅游资源转化为农村经济增长点</p>	<p>Panel 10 Using Roads to Transform Tourist Resources into a Growth Driver for the Rural Economy</p>
<p>鄂尔多斯市鄂托克前旗位于内蒙古自治区西部，是内蒙古自治区 33 个牧业旗之一，有着丰富的自然景观和人文历史。</p>	<p>As one of the 33 pastoral banners in Inner Mongolia Autonomous Region, Otog Front Banner of Ordos City is located in the autonomous region's western part and boasts abundant natural landscapes and a profound cultural and historical background.</p>
<p>近年来，鄂托克前旗打造旅游环线、畅通资源路线、激活产业链条，开创了农村公路“路衍经济”发展的新路径。</p>	<p>In recent years, Otog Front Banner has developed a “rural roads derivative economy” by creating tourism circuits, opening up resource routes, and activating industrial chains.</p>
<p>鄂托克前旗重点打造通史至城川、昂素至城川、城川至三段地等精品旅游示范路，将沿线的历史名胜、草原风情、民俗文化、大漠风光等串珠成线，辐射带动沿线 1000 多户农牧民吃上了“旅游饭”。</p>	<p>Otog Front Banner has built high-quality roads between Chengchuan and Tongshi, Angsu, and Sanduandi, connecting historical sites, traditional grasslands, folk culture, and desert scenery in the process, and enabling more than 1,000 households of farmers and herders along the routes to benefit from tourism.</p>
<p>2019 年以来，鄂托克前旗承接游客约 500 万人次，实现旅游收入超过 100 亿元。</p>	<p>Since 2019, Otog Front Banner has welcomed approximately 5 million tourists and realized tourist revenues of over RMB10 billion.</p>
<p>农村公路的快速发展成为推动鄂托克前旗文旅产业发展和农牧民增收的新引擎，让当地群众走上康庄大道。</p>	<p>The rapid development of rural roads has become a new engine driving the growth of cultural and tourist industries and boosting the incomes of farmers and herders in Otog Front Banner, leading the local people on the march towards prosperity.</p>
<p>（三）助力宜居宜业和美乡村建设</p>	<p>3. Creating a Beautiful and Harmonious Countryside Where People Want to Live and Work</p>
<p>建设基础设施完备、公共服务普惠、乡村文明繁荣的宜居宜业和美乡村，是让农民就地</p>	<p>Building a beautiful and harmonious countryside with complete infrastructure,</p>

过上现代生活的迫切需要，也是焕发乡村文明新气象的内在要求。	inclusive public services, and prosperous rural culture, where people want to live and work, is a prerequisite for rural people to live a modern life close to their homes, and a requirement for fostering greater social etiquette and civility in the countryside.
让乡村因路而美。	Building roads to make the countryside more attractive.
农村公路规划设计时注重与自然环境、风土人情、人文文化等和谐交融。	In the planning and design of rural roads, transport departments focus on integration with the natural environment and local culture and customs.
持续推进农村公路路域环境治理，不断加强农村公路绿化美化。	They continue to improve the environment of rural roads and carry out roadside greening and beautification programs.
美丽农村路接山川、连林田，与特色村居相映成趣，助力形成一大批宜居宜业的特色小镇，绘就和美乡村新画卷。	Beautiful rural roads connect natural and cultivated landscapes, and blend in with distinctive rural homes, helping to build a large number of villages and towns that are desirable places to live and work, and painting new scenes of rural harmony and beauty.
推动基本公共服务延伸。	Extending basic public services.
安全、便捷、高效的农村交通为教育、医疗等基本公共服务向农村地区延伸提供了条件。	Safe, convenient and efficient rural transport facilities allow the extension of basic public services such as education and medical care to rural areas.
农村交通的发展，让农民群众就医出行更加便捷安全，“护学专线”“定制校车”等个性化运输服务，有效缓解了偏远地区学生“上学难”问题，促进城乡教育均等化发展。	The development of rural transport has made it safer and more convenient for rural people to travel and obtain medical services. Personalized transport services, including dedicated shuttle routes and customized school buses, have reduced problems for students in remote areas and supported equal access to education in urban and rural areas.
促进城乡交流融合。	Accelerating urban-rural exchanges and integration.
农村公路发展有效缩短城乡时空距离，促进人员、物资、资金、信息、文化等在城乡间双向流通，推动以城带乡、以乡促城，改变了农村生产生活方式和社会面貌，拓宽了农民群众视野认知，助推形成城乡互补、协调发展、共同繁荣的新型城乡关系。	The development of rural roads has effectively shortened the distance and travel time between urban and rural areas, and promoted the two-way flow of personnel, materials, funds, information and culture. It has enabled mutual promotion between urban and rural areas, transformed the rural lifestyle, working pattern, and social landscape, and broadened the

	outlook of rural people, thereby helping form a new model of urban-rural relationship characterized by complementarity, coordinated development, and common prosperity.
七、为发展中国家农村交通发展贡献中国力量	VII. China's Contribution to Rural Transport in Other Developing Countries
当前，许多发展中国家仍然面临贫困的考验，在发展的困境中寻路，农村交通仍然是制约经济社会发展的瓶颈之一。	At present, a number of developing countries are still afflicted by poverty. They are searching for ways to develop, but rural transport is still a bottleneck.
中国注重加强与国际社会在交通领域的互利合作。	The Chinese government has worked to strengthen mutually beneficial cooperation on transport in the international community.
2018年，在中国的倡议和推动下，联合国大会通过了“消除农村贫困，落实2030年可持续发展议程”的决议，强调通过基础设施建设等措施加大减贫力度。	In 2018, a resolution initiated and promoted by China – Eradicating Rural Poverty to Implement the 2030 Agenda for Sustainable Development – was adopted by the UN General Assembly, emphasizing further poverty reduction efforts through infrastructure construction.
长期以来，中国通过国际合作机制与其他国家交流分享发展经验，援建发展中国家农村公路基础设施，为世界消除贫困、改善民生和可持续发展作出积极贡献。	Over the years, through sharing its development experience through international cooperation mechanisms and helping with the construction of rural road infrastructure in other developing countries, China has contributed substantially to reducing poverty, improving people's wellbeing, and promoting sustainable global development.
（一）提供符合国情、切实可行的公路技术标准	1. Providing Technical Standards for Highway Engineering Suited to Differing National Conditions
标准是人类文明进步的成果，是世界通用的技术语言，促进世界的互联互通。	Standards are the fruit of humanity's progress. They are also a universal technical language that strengthens global connectivity.
近年来，中国大力开展标准化工作，通过标准驱动创新、合作、绿色、开放共同发展。	In recent years, China has made great efforts in standardization and promoted innovative, cooperative, green and open development powered by standards.
随着中国公路基础设施的快速大规模发展，相应建立起具有中国技术特色、世界先进水平的公路行业技术标准规范体系。	In support of its rapid, large-scale development of road infrastructure, China has established a world-leading system of technical standards and specifications for highway engineering.
这些标准是中国交通建设工程经验的总结，体现了中国公路工程建设领域的理论和工	Based on China's experience from its transport construction projects, these standards represent

<p>艺、设备、材料等技术创新成果。</p>	<p>theoretical advances in China's highway engineering and involve technological innovations in techniques, equipment and materials.</p>
<p>同时，中国幅员辽阔，地质地形复杂，工程类型丰富，中国标准具有很强的适用性和经济实用性。</p>	<p>At the same time, they are highly practical and adaptable as they come from diverse projects covering China's vast territory with complex geology and terrain.</p>
<p>中国坚持“与世界相交、与时代相通”，为适应日益增长的全球交通运输发展的需求，增进世界连接，促进知识传播与经验分享，在加强与有关国家基础设施“硬联通”的同时，着力推进“中国标准”与世界的“软联通”。</p>	<p>Committed to staying connected with the world and abreast with the times, China aims to meet the world's growing demand for transport development by boosting connectivity and sharing knowledge and experience. While strengthening “hard connectivity” in infrastructure with other countries, it is also promoting “soft connectivity” by sharing Chinese standards.</p>
<p>自 2012 年中国正式发布《公路工程技术标准》《公路桥涵设计通用规范》《小交通量农村公路工程技术标准》等首批 10 项公路工程行业标准外文版以来，目前已累计发布 73 项外文版标准，包括英、法、俄三个语种，涵盖公路、桥梁、隧道的勘察、设计、施工、养护、质量检验评定等主要专业技术领域，中国公路工程行业标准外文版体系已经基本形成，为发展中国家公路建设贡献了中国方案。</p>	<p>In 2012, ten industry standards for highway engineering were released in foreign languages for the first time, including Technical Standard of Highway Engineering, General Specifications for Design of Highway Bridges and Culverts, and Technical Standard of Low Volume Rural Highway Engineering. To date, a total of 73 industry standards have been released in English, French and Russian, covering major technical fields including survey, design, construction, maintenance, and quality inspection and evaluation of highways, bridges and tunnels. They represent a systematic effort in building industry standards in foreign languages, and contribute to highway construction in other developing countries.</p>
<p>中国公路标准在全球数十个国家数百个项目中得到应用，印尼泗马大桥、莫桑比克马普托大桥等都是采用中国标准建设的典范项目。</p>	<p>China's highway standards have been applied in hundreds of projects in dozens of countries around the world, including Indonesia's Surabaya-Madura Bridge Project and Mozambique's Maputo-Katembe Bridge Project.</p>
<p>中国在尼泊尔、莫桑比克等发展中国家援建的农村公路也均采用中国标准建设，以其经济、耐久、安全、舒适等技术特点造福当地百姓（专栏 11）。</p>	<p>Chinese standards have also been applied in China-aided construction of rural roads in countries such as Nepal and Mozambique. These affordable, durable, safe and</p>

	comfortable roads have provided benefits to local people (see Panel 11).
专栏 11 应用中国标准建设的喀喇昆仑公路	Panel 11 Applying Chinese Standards on the Karakoram Highway
中巴经济走廊上的重要陆路通道喀喇昆仑公路，因地质原因，建设技术复杂，工程难度高，采取中国标准、由中国企业承建的喀喇昆仑公路二期工程项目荣获 ENR 全球最佳工程奖。	The Karakoram Highway is an important land route on the China-Pakistan Economic Corridor. Its challenging geological conditions imposed a high difficulty of engineering that required complex construction techniques. Applying Chinese standards, the Karakoram Highway Phase II built by Chinese enterprises has won the Best Bridge/Tunnel Award in the Engineering News-Record (ENR) Global Best Projects competition.
中巴两国签署的《中巴公路技术合作五年行动计划》中，巴基斯坦参考借鉴中国技术和标准规范，结合巴基斯坦实际情况以及双方科研项目合作成果，在中国的帮助下分期分批制定该国急需的相关公路工程标准。	Through the Five-Year Action Plan for Technical Cooperation on Highway Engineering Between China and Pakistan, Pakistan has developed its urgently needed standards for highway engineering in stages with the help of China. Based on Pakistan's actual conditions, these standards have drawn on Chinese technologies, standards and specifications as well as results from China-Pakistan scientific research cooperation.
(二) 分享交流农村公路发展经验	2. Sharing Experience in Rural Road Development
中国坚持以全人类福祉为目标，发挥大国作用，主动为全球交通合作搭建新平台、构建新机制，推动知识经验分享，以务实行动展现大国担当。	With the goal of improving the wellbeing of humanity, China has played an active role in building new platforms and mechanisms for global transport cooperation and in promoting knowledge and experience sharing. It has met its responsibilities as a major country with practical actions.
搭建交流合作平台。	Building platforms for cooperation and exchanges.
2021 年中国成功举办第二届联合国全球可持续交通大会，聚焦减贫脱贫、交通先行，2023 年举办全球可持续交通高峰论坛，聚焦“共同发展——不让任何一国、任何一人掉队”，与其他国家分享经验，在更广泛、更细化领域展现中国农村交通事业发展的决心和担当作为。	In 2021, China hosted the Second United Nations Global Sustainable Transport Conference, with a focus on the enabling role of transport in poverty reduction and eradication. In 2023, China hosted the Global Sustainable Transport Forum, emphasizing common development that leaves no country or no one behind. At the forum, it shared experience with other countries and showed its

	determination and sense of responsibility in developing rural transport in more extensive and detailed fields.
建立中国国际可持续交通创新和知识中心，积极搭建合作交流平台，向国际社会宣介中国农村公路发展实践和成功经验。	China has established the Global Sustainable Transport Innovation and Knowledge Center as a platform for cooperation and exchanges and for sharing China's experience in rural road development with the international community.
参与国际组织相关工作。	Engaging in international organizations.
中国选派专家参加世界道路协会农村公路技术委员会工作，并通过联合国亚太经社会、上海合作组织、中亚区域经济合作组织等国际性组织广泛分享中国农村公路发展经验，推动各国提升对农村公路的安全性、可达性等的重视。	China has sent experts to the Technical Committee 2.2 Roads for Equity, Accessibility and Mobility in Rural and Interurban Areas of the World Road Association (PIARC). It has also shared its experience in developing rural roads through other international organizations including the UN Economic and Social Commission for Asia and the Pacific (ESCAP), Shanghai Cooperation Organization (SCO), and Central Asia Regional Economic Cooperation (CAREC) Program, urging countries to attach more importance to the safety and accessibility of rural roads.
积极开展国际合作培训。	Conducting international training sessions.
中国积极为发展中国家培育专业技术力量，为各国公路可持续发展作出贡献。	China has contributed to the sustainable highway development of other developing countries by helping to train technical professionals.
实施博茨瓦纳乡村公路设计与管理海外研修班、“一带一路”公路工程高级研修班、发展中国家公路建设技术人员培训班、公路网络规划研修班等 28 期培训班，培训相关领域人才 800 余名。	China has held 28 training sessions for more than 800 people, including a training program on road design and management in Botswana, an advanced training program on highway engineering for countries along the Belt and Road, a training program for technical personnel in highway engineering in other developing countries, and a training program on road network planning.
(三) 支持发展中国家农村公路建设	3. Supporting Rural Road Construction in Other Developing Countries
中国积极支持并参与发展中国家的农村公路建设项目，在其他发展中国家援建了大批农村公路基础设施项目，向世界农村公路领域分享中国方案、中国经验。	China has supported and participated in rural road construction projects, and provided aid and assistance to a large number of rural road infrastructure projects in other developing countries, contributing its strength and experience to global rural road development.

<p>通过参与项目建设、提供技术支持和人力资源，帮助当地改善农村地区道路基础条件（专栏 12），极大方便当地人民出行，大幅度降低物流成本，增强城乡互动，促进当地农产品的流通和市场接入，对消减贫困、改善民生、提升人民群众的生活水平，促进当地经济社会发展具有重要意义，深受当地百姓好评，如中国无偿援建的马达加斯加首都郊区公路项目，便利了马哈扎扎镇鸡蛋运输，促进了当地蛋鸡养殖业发展，这条路被当地人亲切地称作“鸡蛋路”。</p>	<p>By participating in construction projects and providing technical and human resource support, China has helped improve the rural road infrastructure of other developing countries (see Panel 12), make travel much easier for local people, reduce logistic costs by a large margin, strengthen interaction between urban and rural areas, and facilitate the market access and flow of agricultural products. These efforts have contributed significantly to local poverty reduction and alleviation, improved people's wellbeing and living standards, promoted local economic and social development, and received wide acclaim from local people. For example, the road construction project on the fringes of the capital of Madagascar, supported by free aid from China, has made it easier to transport eggs from the town of Mahazaza and facilitated the development of local poultry farming. It is known by the locals as the “egg road”.</p>
<p>据不完全统计，2018 年以来，中国共支持柬埔寨、塞尔维亚、卢旺达、纳米比亚、瓦努阿图、尼日尔等 24 个国家实施公路与桥梁建设整修，帮助发展中国家改善交通基础设施条件。</p>	<p>Since 2018, China has supported 24 developing countries including Cambodia, Serbia, Rwanda, Namibia, Vanuatu and Niger in highway and bridge construction and maintenance. These efforts have helped such countries improve transport infrastructure.</p>
<p>专栏 12 中国支持厄瓜多尔交通部灾后重建项目</p>	<p>Panel 12 Supporting Post-Earthquake Reconstruction in Ecuador</p>
<p>厄瓜多尔交通部灾后重建一期项目位于厄瓜多尔中北部皮钦查省、因巴布拉省、圣多明各省以及沿海地区埃斯梅拉达斯省四个省份的交界位置，施工内容包括对 33.8 公里的原有砾石道路进行升级改扩建及新建一座长 177 米大桥。</p>	<p>Implemented by the Ministry of Transport and Public Works of Ecuador following a magnitude 7.8 earthquake in 2016, Phase I of the post-earthquake reconstruction project was located in the intersection of four provinces – Pichincha, Imbabura and Santo Domingo de los Tsáchilas provinces in north-central Ecuador, as well as the coastal province of Esmeraldas. Phase I involved reconstructing, upgrading and expanding an existing 33.8-km-long gravel road and constructing a 177-m-long bridge.</p>
<p>项目建成后，该国中北部省份的主要交通干线完成整体性联通，成为连接中北部地区和西部太平洋沿海地区的最便捷通道。</p>	<p>Completed in 2023, it connects all traffic arteries in north-central Ecuador and is now the most convenient route connecting Ecuador's</p>

	north-central region and Pacific coastal areas in the west.
该项目周边为当地棕榈、甘蔗及可可等农作物主要产区，原有路面为天然砾石路面。	Surrounding the Phase I site were the main production areas of agricultural products such as palm, sugarcane and cacao, served by gravel roads.
项目的实施极大便利了区域内农作物产品的运输，提高了道路安全等级，促进了当地农村社会经济发展。	Phase I has greatly facilitated the transport of local agricultural products, upgraded road safety, and stimulated the social and economic development of local rural areas.
该项目是落实习近平主席高访成果的首个项目，是中方支持厄瓜多尔 2016 年 7.8 级大地震灾后重建的重大成果。	Phase I was the first step in implementing the bilateral diplomatic initiative of China's President Xi Jinping and a major result of Ecuador's post-earthquake reconstruction with China's support.
2023 年项目竣工通车，不仅解决了沿线约 150 万居民的出行困难，同时为完善厄瓜多尔全国公路网、推动地方经济发展提供重要助力，是两国不断深化友好合作的又一例证。	It has significantly improved access to transport for around 1.5 million people along the route and strengthened Ecuador's national road network and the local economy. It is an excellent example of deepening friendship and cooperation between China and Ecuador.
结束语	Conclusion
当前，中国已迈上以中国式现代化全面推进中华民族伟大复兴的新征程，农村公路事业迎来重大历史机遇期。	Today, as China embarks on a new journey of promoting national rejuvenation through Chinese modernization, the country's rural road endeavors have entered a period of historic opportunity.
中国将实施好路网提升行动、安全提升行动、运输提升行动、治理能力提升行动、出行服务提升行动、和美乡村提升行动、助力产业提升行动、就业增收提升行动等新一轮农村公路提升行动，加快完善现代化农村交通运输体系，奋力书写好加快建设交通强国农村公路新篇章。	China will implement a new round of rural road upgrading programs covering road network expansion, road safety, transport capacity, governance ability, public services, the road environment, the integrated development of transport and local industries, and the growth of employment and rural incomes. These efforts will improve the modern rural transport system, open a new chapter of rural road development, and build up China's strength in transport.
到 2035 年，随着中国式现代化的不断推进，中国将建成“规模结构合理、设施品质优良、治理规范有效、运输服务优质”的农村公路交通运输体系。	As China's modernization advances, by 2035, the country will have in place a rural road transport system with a sound scale and structure, high-quality infrastructure and services, and rational and effective governance.
到本世纪中叶，随着社会主义现代化强国的	By the middle of the century, China will have

<p>全面建成, 中国将建成与农业农村现代化发展相适应、与生态环境和乡村文化相协调、与现代信息通信技术相融合、安全便捷绿色美丽的农村公路交通运输体系。</p>	<p>become a great modern socialist country with a safe, convenient, green and beautiful rural road transport system. The system will be adapted to the modernization of agriculture and rural areas, developed in tandem with eco-environmental conservation and rural cultural progress, and integrated with modern information and communication technologies.</p>
<p>中国将秉持开放、合作、共赢的理念, 加强与各国在农村公路领域的交流与合作, 共同探索农村公路发展的新模式、新路径, 继续为全球农村公路和减贫事业贡献智慧与力量, 共同绘制人类命运共同体的美好画卷。</p>	<p>In a spirit of openness and mutually-beneficial cooperation, China will strengthen international exchanges and collaboration in exploring new models and paths of rural road development, further contributing to global rural road development and poverty reduction, and building a global community of shared future.</p>
<p>①本书统计数据暂未包含我国的港澳台地区, 下同。</p>	<p>¹ Cited statistics in this white paper do not include the regions of Hong Kong, Macao, and Taiwan.</p>
<p>②“等级路”指按《公路工程技术标准》, 技术等级为高速、一级、二级、三级、四级的公路。</p>	<p>² Graded roads refer to expressways, and Grade I, Grade II, Grade III and Grade IV highways as categorized in the Technical Standard of Highway Engineering.</p>
<p>③“优良中等路率”是指评定结果为优等、良等和中等的比例。按《公路技术状况评定标准》, 公路技术状况划分为优、良、中、次、差五个评定等级。</p>	<p>³ According to the Highway Performance Assessment Standard, the technical conditions of highways are rated at five levels: premier, good, medium, inferior, and substandard.</p>
<p>④“一二三类桥梁”是指评定结果为一类、二类、三类的桥梁。按《公路桥梁技术状况评定标准》, 桥梁总体技术状况等级评定结果为一类、二类、三类、四类、五类。评定结果为四类、五类的桥梁为“危桥”。</p>	<p>⁴ According to the Standards for Technical Condition Evaluation of Highway Bridges, the technical conditions of highway bridges are rated at five levels: Grade I, Grade II, Grade III, Grade IV, and Grade V. Grade IV and Grade V bridges are dangerous bridges.</p>