I. **Country Context**

1. Infrastructure development remains a top priority for the Government of China, which has long recognized that a strong economy runs on reliable roads and rails, electricity, and telecommunications. Since 2000s, millions of Chinese have benefited from upgrades in these critical sectors. Infrastructure investment had led to rapid economic growth. It reduced poverty, and put in place the necessary environment to transform the Chinese economy. China’s leadership has charted equally ambitious plans for the future. Its goal is to bring the entire nation’s infrastructure up to the level of infrastructure in a middle-income country, while using increasingly efficient transport logistics to tie the country together.

2. But that rapidly implemented infrastructure investment-led growth strategy has had some negative consequences. Development of human capital to efficiently plan and manage resources, both financial and natural, was not catching up with the high pace of investment spending. Soft infrastructure development was not at par with hard infrastructure development. The quality of the infrastructure, operations and maintenance plans, safety, and climate resilience call for new technics and innovation. Also, inefficiencies in planning led to fragmentations in the infrastructure coverage. Significant disparities remain between coastal and inland regions, as well as between urban and rural areas.

3. The Government of China, understanding this situation, recognizes that future growth strategy will still rely on infrastructure investment, but that it should also bring in innovation, proper maintenance and resilience, safety and it should preserve the environment. The institutions in charge would need to adapt and gain additional knowledge to reach those objectives. Anhui province endorsed this agenda and is ready to have local administrations introducing new methods and innovative practices so that the infrastructure becomes safer, more resilient, of good quality, with limited footprint on environment and supports communities accessing growth opportunities.
4. Anhui Province economic growth has not reached the level of nearby provinces, such as Zhejiang and Jiangsu. Anhui’s GDP reached US$5,912 per capita in 2016\(^1\), which was about 45 percent of these other provinces. There is also significant wealth disparity within Anhui province, with most of the wealth concentrated in industrial regions close to the Yangtze River Delta, such as Hefei, Wuhu, and Ma'anshan.

II. Sectoral and Institutional Context

5. China has expanded its transport infrastructure, including rural roads, in a very significant way over the last decades, adding over one million kilometers (km) of rural roads to its network between 2001-2010 alone. This effort came in response to mobility needs emerging from a surge in motorization and economic growth in rural areas. By the end of 2015, the total length of rural roads in China reached 3.98 million km, with paved road access to 98.6 percent of towns/townships and 94.5 percent of administrative villages. While the paved roads greatly facilitated mobility for rural populations, many of these roads were built with low technical and safety standards. In addition, many ‘natural’ villages\(^2\) are not yet accessible by all-weather paved roads. To address these challenges, the 13th Five-Year Plan of the Ministry of Transport called for connecting all towns and administrative villages by paved roads, widening about 250,000 km of narrow rural roads, improving the safety facilitates of 650,000 km of risky rural roads, and rehabilitating around 15,000 damaged rural bridges. The policy framework and technical guidance were provided by the Ministry of Transport in the form of policies, directives and technical standards, such as the ‘13th Five Year Transport Plan for Poverty Reduction’, ‘Guidance on Rural Roads Development’, ‘Safe Road Program’, and ‘Technical Standards for Class I to IV roads’.

6. In line with national trends, Anhui Province increased its stock of rural roads (comprising county, township and village roads) significantly from 34,000 km in 2000 to 172,000 km in 2015. The expansion in rural road connectivity, while critical for poverty alleviation, was implemented without adequate consideration for quality, operations and maintenance plans, safety, and climate resilience. About 168,000 km are Class IV or above, whereas the remaining roads are sub-standard roads. Many roads are in fair to poor condition due to lack of maintenance, as well as perennial damage from traffic, flooding, and landslides. The latter is due to the climate change. According to the climate change analysis conducted in the most recent transport project in Anhui\(^3\), some parts of the province is exposed to the climate change risk as the increase in temperature and precipitation is likely to continue (or worsen) over the coming decades which may lead to more flooding, landslides, and traffic accidents. Reliable access to poor and disaster-prone areas remains an issue.

7. The 13th Five-Year Comprehensive Transport Plan for Anhui Province aims to improve rural roads infrastructure and the level of transport service by implementing several programs, including the Smooth Traffic Program, Safe Road Program, Damaged Bridge Improvement Program, and Road Maintenance Program. Those activities cover each of the 56 counties of the province. The proposed Program for Results operation (PforR) will focus on a subset of ten

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\(^1\) National Statistics Bureau
\(^2\) Natural village means a small village formed naturally over time
\(^3\) Project Appraisal Document of China Anhui Road Maintenance Innovation and Demonstration Project (P153173)
counties that are part of the flat and densely populated Huai River watershed, the Huanghuai Plain in the north, and the rugged Dabie Shan mountain range along the Yangtze River in the southwest. The ten counties have a combined population of about 12 million (88 percent rural) in 2015, and about 905,000 registered rural poor.

8. The 13th Five-Year Comprehensive Transport Plan for Anhui Province also promotes the notion of ‘Four Excellences’, i.e. excellence in construction, management, maintenance and operation. The Bank is considered a Partner of choice to help with the implementation of the concept, ensuring that the construction and maintenance is made with quality, safety, and with resilience aspects in mind, whilst innovations are brought to management and operation.

III. Program Scope

9. The Government program and its objectives can be described using the Anhui Province 13th Five-Year Comprehensive Transport Plan (APFYCTP) to be implemented over the 2016-2020 period. The objectives are ambitious, aiming at: (i) improving rural transport infrastructure; (ii) enhancing the connectivity and accessibility of rural areas; (iii) improving road safety of rural road network; (iv) increasing the reliability of the rural road network and its resilience to natural disasters; (v) extending rural road service life through maintenance; and (vi) strengthening capacities by deepening institutional reforms, improving program implementation mechanisms, and developing and implementing policies. These objectives represent significant challenges to the county administrations which need additional technical and administrative support to reach them.

10. The APFYCTP is a continuation of on-going national and provincial programs, some launched during the 12th FYP period. The APFYCTP includes: (i) the Smooth Traffic Program (STP) to upgrade and rehabilitate rural roads, which ends in 2018 and will be followed by the Natural Village Road Program to be implemented from 2019-2022 to strengthen the rural road network until the completion of the PforR, set for August 2022; (ii) the Safe Road Program (SRP) to improve the safety of township and higher level roads and enhance the capacity of road safety governance by 2020; (iii) the Damaged Bridge Improvement Program (BIP) to eliminate hazardous bridges on rural roads; (iv) the Road Maintenance Program (RMP) to reach 100 percent coverage on rural road maintenance; and (v) institutional capacity building.

11. The proposed PforR Program (the “Program”) will finance a portion of the government programs (10 counties out of total 56 counties, covering 12 million rural population out of the 69 million population for the entire Province). None of the activities financed under the Program is financed otherwise (by World Bank or any other International Financial Institution). The 10 participating counties in eight municipalities are: Lixin (Bozhou Municipality); Xiao and Si (Suzhou Municipality); Linquan and Funan (Fuyang Municipality); Shou (Huainan Municipality); Dingyuan (Chuzhou Municipality); Shucheng (Lu’an Municipality); Hanshan (Ma’anshan Municipality); and Yuexi (Anqing Municipality). The participating counties are selected because: (i) rural roads in these counties are seriously damaged; (ii) the impact of rural accessibility is larger than average; (iii) the economic impact of having an enhanced rural road network would be larger than average; and (iv) road safety is a marked issue in each of these counties.
12. The Program overlaps with government programs in the 10 participating counties. The design of the PforR limits the number of local counterparts, allowing lessons to be learned from pilot activities in the 10 counties. The PMO has designed a three-stage plan to gradually roll out successful activities to the entire Province: (i) during 2018 to late 2020 the PMO will identify and prepare institutionalization of successful experiences in terms of construction, management, maintenance and operation of rural roads; (ii) in 2021, which will be the last full year of the Program, the results of the Program will disseminated to 20 additional counties; (iii) comprehensive dissemination to all 56 Anhui counties will start one year later, based on the experience of the second phase and leading to a sustainable development of rural roads construction and management in Anhui Province. The Provincial authorities confirmed that although the original Smooth Traffic Program will be completed by 2018, the Province is preparing a Natural Village Road Program under the government program, which is planned to be implemented from 2019-2022 to strengthen the rural road network, representing the continuation of the Smooth Traffic Program during the 2019-2022 period. The other activities under the Government program will continue until the closing date of the project set to August 2022.

IV. Program Development Objective(s)
13. The Program Development Objective (PDO) is to improve the rural road network connectivity, safety, and quality and its management in selected counties in Anhui Province. Results will be monitored along three areas:

Results Area 1: Improve rural road connectivity and safety
- Activities: Upgrade or rehabilitate rural roads / Improve pavements / Widen or pave access to remote villages / Improve traffic safety facilities of rural roads
- Intermediate outcomes: Km of roads rehabilitated or improved with resilience and safety features.
- Outcome: Rural roads in excellent, good and fair condition to be higher than 75%.

Results Area 2: Maintain good quality rural roads
- Activities: Rehabilitation of damaged bridges / maintenance activities
- Intermediate outcomes: Linear meters of bridges reinforced, demolished and/or reconstructed with resilience and safety features/ Km of rural roads maintained with resilience and safety features/ % of annual budget allocated for rural roads maintenance increased
- Outcome: Rural roads maintenance coverage rate reaching 100%.

Results Area 3 Strengthen institutional capacity
- Activities: Capacity building program for the municipal- and county-level transport bureaus to manage rural road and bridge assets, road safety, and climate resilience infrastructure
- Intermediate Outcomes: Number of satisfactory annual performance evaluation reports for county-level Quality Supervision Stations / % of annual budget allocated for rural roads maintenance increased / Improve road safety management capacity.
- Outcome: County administration progress on three of the “four excellence” program and the program is rolled out to other counties.
V. **Environmental and Social Effects**

14. Environmental and social screening has been built to exclude activities with significant/irreversible impacts on the environment and/or affected people. The PforR is designed to support rehabilitation, improvement and upgrading of existing rural roads (including small-scale bridges on these roads) in a non-sensitive environmental and social context. The program does not include new construction of rural roads or any rehabilitation and upgrading of existing rural roads that could fall into the boundary of environmentally sensitive areas (e.g., nature reserve, protected areas, reservoirs, natural habitats, physical cultural resources). The activities typically limit works to the existing right-of-way and footprint, without creating new lanes or involving large amounts of slope cutting/filling. The Program’s environmental and social risks are considered “Moderate” and the PforR instrument is appropriate.

15. **Environmental and Social Review Process.** An environmental and social system assessment (ESSA) was conducted during PforR preparation, through a legal framework review, assessment of the institutional setup and implementation mechanisms, several rounds of public consultations at sites visited, consultations with relevant government departments, and field visits to similar rural roads projects being developed under domestic procedures. The assessment concluded that national and provincial regulations for environmental and social safeguards are principally consistent with the Bank’s policy and directives, while there are inadequacies in effective implementation of the local system, and enforcement and capacity building are necessary. Recommendations to improve these practices have been integrated into the PAP. The World Bank has conducted consultations with relevant government departments in the 10 participating counties during the ESSA preparation stage. Consultation on the draft ESSA was organized in Hefei during in January 2018 with the participation of a range of stakeholders to solicit comments and feedback on the findings and recommendations of the draft ESSA. The draft ESSA has been disclosed by the Bank and locally in the Project counties following consultation.

16. **Gender.** The ESSA noted all China Women’s Federation has offices from central to county levels, and focal points at township level to be responsible for gender related issues. In particular, equal access for women to social services and economic resources is one of such issues. The county level women’s federations manage standalone programs with women as targeted beneficiaries. For those vulnerable groups, such as those with no working capacity, disabled, and those identified as low-income households, local county civil affairs bureaus are responsible for providing assistance and cover them with rural minimum living allowance.

17. **Grievance Redress Service.** Communities and individuals who believe that they are adversely affected as a result of a Bank supported PforR operation, as defined by the applicable policy and procedures, may submit complaints to the existing program grievance redress mechanism or the WB’s Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address pertinent concerns. Affected communities and individuals may submit their complaint to the WB’s independent Inspection Panel which determines whether harm occurred, or could occur, as a result of WB non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank's attention, and Bank Management has been given an
opportunity to respond. For information on how to submit complaints to the World Bank’s corporate Grievance Redress Service (GRS), one can visit http://www.worldbank.org/GRS. For information on how to submit complaints to the World Bank Inspection Panel, one can visit www.inspectionpanel.org.

VI. Financing
18. Program expenditures will be fully financed by a combination of internal resources, mainly provincial and national subsidies and local fiscal revenue, as well as IBRD financing of US$200 million; see Table below.

<table>
<thead>
<tr>
<th>Source</th>
<th>Amount (RMB million)</th>
<th>Amount (US$ million)</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provincial and National Subsidies</td>
<td>816</td>
<td>124</td>
<td>27</td>
</tr>
<tr>
<td>Local Fiscal Revenue</td>
<td>839</td>
<td>128</td>
<td>28</td>
</tr>
<tr>
<td>IBRD</td>
<td>1,315</td>
<td>200</td>
<td>44</td>
</tr>
<tr>
<td><strong>Total Program Financing</strong></td>
<td><strong>2,970</strong></td>
<td><strong>452</strong></td>
<td></td>
</tr>
</tbody>
</table>

VII. Program Institutional and Implementation Arrangements
19. The PforR will be implemented by Anhui Highway Administration Bureau (AHAB), the Transport Bureaus of the eight municipalities (MTB), the Transport Bureaus (CTBs) of 10 counties and related Township Governments. The Anhui Rural Road Administration (ARRAD) of AHAB will provide sectoral administration, instructions, and supervision of program activities. The eight municipalities’ Transport Bureaus and the 10 counties’ Transport Bureaus will be jointly responsible for day-to-day program implementation, including for project management, procurement, safeguards, monitoring and reporting.

20. The existing Program Management Office (PMO)4 is housed at Anhui Foreign Investment Promotion Office (FIPO) under ADT to better support the Program. The PMO will provide overall coordination and communication with the Bank, and hire the IVA.

21. The IVA’s role will be to provide independent confirmation of the results reported by the AHAB, the bureaus of eight municipalities and the 10 counties to the Ministry of Finance and the Bank. The verification of the achievement of the DLIs will be conducted in accordance with the agreed verification protocol detailed in the TOR for the IVA.

22. FIPO and AHAB will chair quarterly progress meetings with all stakeholders. In addition, meetings will be conducted as needed to share knowledge and learning between the participating municipalities and counties, and to undertake workshops and training.

23. The Bank will be responsible for: (i) reviewing implementation progress and achievement of PforR results and DLIs; (ii) providing support to the PMO and CTBs on implementation issues and institutional capacity building; (iii) monitoring changes in risks to the

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4 The PMO has been implementing other roads projects financed by IFIs (including the World Bank) in Anhui Province
PforR; and (iv) monitoring compliance with legal agreements and the Program Action Plan (PAP).

VIII. Contact point

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