



Report and Recommendation of the President to the Board of Directors

Project Number: 47360-003
Loan Numbers: 3601 and 3602
November 2018

Proposed Loan for Additional Financing Islamic Republic of Pakistan: Khyber Pakhtunkhwa Provincial Roads Improvement Project

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Asian Development Bank

CURRENCY EQUIVALENTS

(as of 9 November 2018)

Currency unit	–	Pakistan rupee/s (PRe/PRs)
PRs1.00	=	\$0.0075528
\$1.00	=	PRs132.40

ABBREVIATIONS

ADB	–	Asian Development Bank
CWD	–	Communication and Works Department
EMP	–	environmental management plan
ESU	–	environment and social unit
km	–	kilometer
PAM	–	project administration manual
PIU	–	project implementation unit
PKHA	–	Pakhtunkhwa Highways Authority

NOTE

In this report, "\$" refers to United States dollars.

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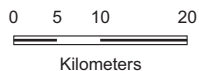
PROJECT AT A GLANCE

1. Basic Data		Project Number: 47360-003	
Project Name	Khyber Pakhtunkhwa Provincial Roads Improvement Project (Additional Financing)	Department /Division	CWRD/CWTC
Country Borrower	Pakistan Government of Pakistan	Executing Agency	Government of Khyber Pakhtunkhwa (KP)
2. Sector	Subsector(s)	ADB Financing (\$ million)	
✓ Transport	Road transport (non-urban)		75.00
		Total	75.00
3. Strategic Agenda	Subcomponents	Climate Change Information	
Inclusive economic growth (IEG)	Pillar 2: Access to economic opportunities, including jobs, made more inclusive	Climate Change impact on the Project	Low
Environmentally sustainable growth (ESG)	Global and regional transboundary environmental concerns	ADB Financing	
		Adaptation (\$ million)	3.49
4. Drivers of Change	Components	Gender Equity and Mainstreaming	
Governance and capacity development (GCD)	Institutional development	Some gender elements (SGE)	✓
5. Poverty and SDG Targeting		Location Impact	
Geographic Targeting	No	Rural	High
Household Targeting	No		
SDG Targeting	Yes		
SDG Goals	SDG8, SDG9		
6. Risk Categorization:	Low		
7. Safeguard Categorization	Environment: B Involuntary Resettlement: B Indigenous Peoples: C		
8. Financing			
Modality and Sources		Amount (\$ million)	
ADB		75.00	
Sovereign Project (Regular Loan): Ordinary capital resources		75.00	
Cofinancing		0.00	
None		0.00	
Counterpart		10.00	
Government		10.00	
Total		85.00	
Currency of ADB Financing: USD			

PAKISTAN

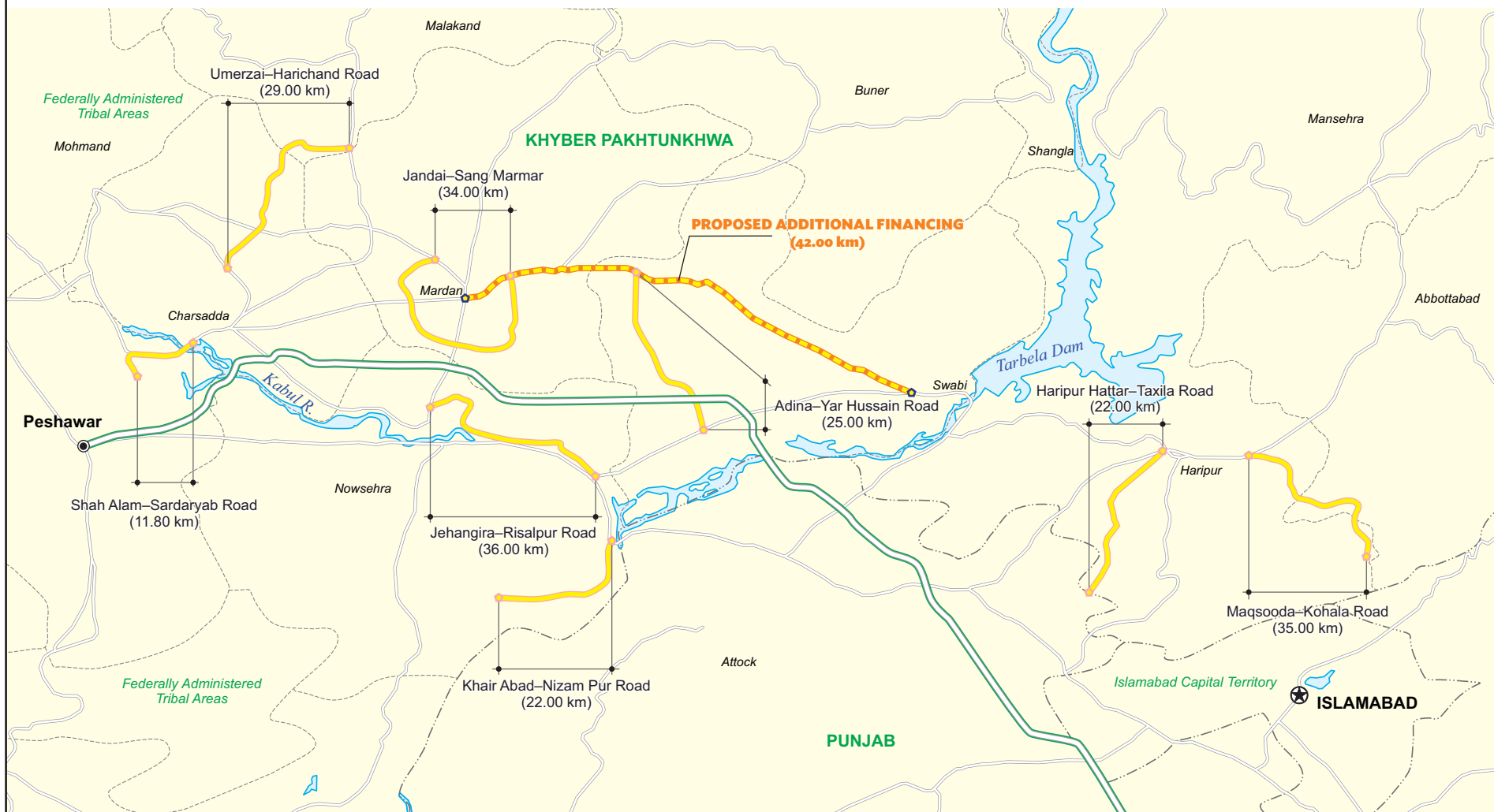
KHYBER PAKHTUNKHWA PROVINCIAL ROADS IMPROVEMENT PROJECT

(additional financing)



- | | | | |
|-----------|--|--|---------------------|
| | Project Road | | National Capital |
| | Project Road - Proposed Additional Financing | | Provincial Capital |
| | Road | | River |
| | M1 Motorway | | District Boundary |
| <i>km</i> | Kilometer | | Provincial Boundary |

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I. THE PROPOSAL

1. I submit for your approval the following report and recommendation on the proposed loan to the Islamic Republic of Pakistan for the additional financing of the Khyber Pakhtunkhwa Provincial Roads Improvement Project.¹

2. The proposed additional financing will expand the scope of the current project to include widening the chronically congested and unsafe Mardan–Swabi road from a two-lane single carriageway into a four-lane divided highway for 42 kilometers (km) of its total length of 53.9 km in the province of Khyber Pakhtunkhwa and strengthening the capacity of the provincial Communication and Works Department (CWD) through the development of a Khyber Pakhtunkhwa road network master plan and training programs.²

II. THE PROJECT

A. Rationale

3. Pakistan's economy is largely driven by strong growth in domestic consumption, recovery in agricultural production, and a marginal recovery in foreign direct investments. However, it is constrained by an inefficient transport system with poor levels of service. Road transport dominates Pakistan's transport system, accounting for almost 96% of freight traffic in ton-km and 92% of passenger traffic in passenger-km. Khyber Pakhtunkhwa is even more reliant on road transport.

4. Khyber Pakhtunkhwa has the third-largest provincial economy in Pakistan. Despite major challenges such as waging war on terrorism (with huge spending on law and order), confronting power load shedding, and having the highest population growth rate, Khyber Pakhtunkhwa recorded the highest economic growth rate in the country. Outperforming the other four provinces in 2013–2017, Khyber Pakhtunkhwa registered an average growth of 5.1% against a national average of 4.5% for the same period.³ The growth rate could have been higher if road transport connectivity had been better, especially between major cities, because it would have reduced the transport cost of products and improved transport efficiency.

5. The existing provincial roads are much below the desired standard both in terms of length and pavement condition. Of Khyber Pakhtunkhwa's total road network of 15,102 km, 1,878 km is classified as provincial roads. These play a vital role in the economic development of the province by connecting district centers to the national highway network and the provincial capital, Peshawar, with commercial centers, district headquarters, and market towns. Provincial roads support intraprovincial trade and commerce as well as access to health, education, and other public services; and reduce poverty by creating jobs and business opportunities.

6. The damaging effects of heavy axle loads, vulnerability to natural disasters, and limited financial resources for road maintenance are putting tremendous strain on the road network in Khyber Pakhtunkhwa. Its performance is fast deteriorating because of high traffic accident rates, reduced pavement life, increased vehicle operating costs, and, crucially, a backlog in road

¹ ADB. 2017. [*Report and Recommendation of the President to the Board of Directors: Proposed Loans to the Islamic Republic of Pakistan for the Khyber Pakhtunkhwa Provincial Roads Improvement Project*](#). Manila.

² ADB provided transaction technical assistance for preparing the Khyber Pakhtunkhwa Provincial Roads Improvement Project (TA 9194-PAK).

³ H. Pasha. 2018. *Growth and Inequality in Pakistan Volume-I*. Islamabad.

maintenance and rehabilitation. In fact, only 27% of the provincial roads maintained by the Pakhtunkhwa Highways Authority (PKHA) are in fair to good condition; the rest is in poor condition.

7. The Asian Development Bank (ADB) approved a loan of \$140.0 million, including a concessional loan of \$18.5 million, on 28 November 2017 for the Khyber Pakhtunkhwa Provincial Road Improvement Project to rehabilitate eight key road sections of provincial roads over a total length of 214 km, and improve transport efficiency and road safety. In May 2018, the Government of Khyber Pakhtunkhwa requested additional financing to dualize most of the existing two-lane road between Mardan and Swabi.⁴ Although most of that section is in fair condition, the dualization serves to efficiently and effectively accommodate an increase in goods vehicles: trucks carrying locally quarried stone and other construction materials, and trucks and tractor-trailers carrying agricultural and forestry products.

8. The Mardan–Swabi road runs for 53.9 km through Khyber Pakhtunkhwa's agricultural heartland between the Indus and Kabul rivers. It connects Mardan, the second-largest city in Khyber Pakhtunkhwa, and Swabi, a college city and the capital of the fourth most populated district in Khyber Pakhtunkhwa. The road is a two-lane single carriageway with urbanized sections (strip development) and suffers from chronic traffic congestion and unsafe operating conditions. The current mix of fast- and slow-moving traffic, dominated by motorcycles and rickshaws, imposes constraints on speed and increases the risk of collisions. The average daily traffic between Mardan and Swabi is about 7,000 vehicles (excluding motorcycles and rickshaws), of which about 15% are heavy trucks, and traffic has been growing at an average 3.4% annually. The highway supports various agricultural, industrial, commercial, and educational activities. Most notable from a traffic generation point of view are the Premier Sugar Mill and Distillery in Mardan; several textile and edible-oil mills; quarries; public universities, Mishal Medical Complex, and numerous private colleges and academies; a police training school; Shewa Adda Camp for internally displaced persons; and markets that serve the surrounding rural areas. Nearby Rashakai, on the M-1 motorway, was dubbed the “Technology City” and is expected to develop into a high-tech industrial zone as part of the China–Pakistan Economic Corridor initiative.⁵ However, traffic surveys along the Mardan–Swabi road clearly indicate that the current peak traffic volumes already exceed the road's capacity. Accordingly, the proposed dualization of 42 km of the road into a dual-carriageway, four-lane highway has high public investment priority.

9. **Current project.** The current loan is performing satisfactorily, and its implementation is at an advanced stage. ADB and the Government of Khyber Pakhtunkhwa and PKHA as an implementing agency signed the project agreements on 14 March 2018 and declared them effective on 24 September 2018, with a closing date of 30 June 2023. The current project is rated *on track* to deliver its expected outputs and meet its intended outcome, with contract awards totaling \$90.36 million (64% of the total loan amount) and disbursement of \$6.7 million (5% of the total loan amount) as of 12 November 2018. In July 2018, the project director of PKHA signed all nine civil works contracts, along with the construction supervision consultant contract. The supervision consultant and the civil works contractors have been mobilized, and construction

⁴ The dualization of the Mardan–Swabi road was part of the original scope of the Khyber Pakhtunkhwa Provincial Roads Improvement Project approved in 2017. However, the Government of Khyber Pakhtunkhwa decided to remove it from the original scope and include it in a separate project to be financed by another development partner. Later on, the provincial government changed its plan again and requested ADB to add the dualization back to the project scope. However, when the request was made, ADB's due diligence was almost completed and a scope change at such a late stage would have delayed the entire project processing. The Government of Khyber Pakhtunkhwa, reluctant to delay construction works for the originally scoped Mardan–Swabi road, opted to take the additional financing route for its dualization.

⁵ ADB recognizes this member as the People's Republic of China.

works are on schedule. PKHA has been implementing the resettlement plan and the environmental management plan without major issues. PKHA has also established a grievance redress mechanism, and no unresolved grievances or complaints currently exist. The recruitment of the road asset management consultant and procurement of maintenance equipment are ongoing. PKHA will procure two performance-based contracts financed by the government to support sustainable road maintenance covering 104 km.

10. **Proposed additional financing.** The provincial government is seeking additional financing to widen the 42 km road section between Mardan and Swabi. The additional financing will further strengthen the capacity of the CWD by supporting the government to develop a Khyber Pakhtunkhwa road network master plan for the next 20 years, and by building a central laboratory for the PKHA and providing training to CWD staff.

11. **Suitability of additional financing.** The proposed additional financing meets the eligibility criteria because the overall project is (i) technically feasible, economically viable, and financially sound based on the due diligence; (ii) accorded high priority by the provincial government as reflected in its annual development plan; (iii) consistent with the transport development objectives of the current project, as it will enhance the outcome and outputs of the current project; and (iv) consistent with the country partnership strategy, 2015–2019 for Pakistan, which aims to improve physical connectivity and enhance regional integration.⁶ Given the strong link with the current project in terms of design and implementation arrangements, the additional financing will offer substantial efficiency gains in project processing and help meet the overall project outcome in a timely manner.

12. **Value added by ADB assistance.** Under the additional financing, ADB will support the provincial government in developing a 20-year Khyber Pakhtunkhwa road network master plan. This is in addition to initiatives financed by the current project, such as piloting performance-based road maintenance, enhancing the road asset management system, and strengthening the capacity of the CWD. Despite the large quantum of road investments in Khyber Pakhtunkhwa since 2000s, some investments have fallen short of achieving the expected outcomes because of unprecedented changes in the structure and composition of the provincial economy. The master plan will assess (i) the status and condition of the overall transport system, including all modes; (ii) the characteristics of transport demand and supply; (iii) the current and projected road traffic demand, reflecting trends in economic growth and regional and subregional trade, as well as the transport modal split; and (iv) the spatial distribution, serviceability, and condition of road infrastructure. The master plan will identify the physical gaps and capacity constraints in Khyber Pakhtunkhwa's road network relative to current and future traffic demand, as well as the policy and institutional improvements needed to satisfy the mobility and logistics requirements of a modern economy. The development of a road network master plan under the additional financing will strengthen the overall capacity of the CWD—from road planning to construction, to operation, to maintenance.

B. Impact and Outcome

13. The current project is aligned with the following impact: an efficient and integrated transportation network established (Pakistan Vision 2025).⁷ The current project will have the following outcome: efficiency and safety along key sections of the Khyber Pakhtunkhwa provincial

⁶ ADB. 2015. *Country Partnership Strategy: Pakistan, 2015–2019*. Manila.

⁷ Government of Pakistan, Ministry of Planning, Development and Reform. 2014. *Pakistan 2025: One Nation, One Vision*. Islamabad.

road network improved. The additional financing will reinforce the overall aggregate impact of the current project, and the overall project outcome will remain the same.

C. Outputs

14. The additional financing will expand the scope of the current project outputs as follows:

15. **Output 1: Provincial road rehabilitated.** The output will rehabilitate 42 km of the provincial road between Mardan and Swabi by upgrading it to four lanes and to provincial road standards with tolling and better road safety measures, and by adding climate resilience features to withstand damage and disruption from natural disasters.

16. **Output 2: The CWD's institutional capacity for road management strengthened.** The output will further strengthen the CWD's institutional capacity by building a central laboratory for the PKHA and developing a Khyber Pakhtunkhwa road network master plan. The master plan will be fully gender-responsive.⁸

D. Investment and Financing Plans

17. The overall project is estimated to cost \$249 million (Table 1).

Table 1: Overall Project Investment Plan
(\$ million)

Item	Current Amount ^a	Additional Financing ^b	Total
A. Base Cost^c			
1. Rehabilitation of roads	130.50	72.34	202.84
2. Institutional strengthening for road maintenance	21.70		21.70
3. Implementation support		1.66	1.66
4. Construction of the central laboratory		1.30	1.30
Subtotal (A)	152.20	75.30	227.50
B. Contingencies^d	5.10	7.20	12.30
C. Financial Charges During Implementation	6.70^e	2.50^f	9.20
Total (A+B+C)	164.00	85.00	249.00

^a Refers to the original amount approved on 28 November 2017. Includes a performance-based maintenance pilot (\$10 million); partial rehabilitation works (\$11.5 million), including taxes and duties (\$5 million) in cash; and resettlement costs (\$2.5 million) to be financed from government resources.

^b Includes taxes and duties of \$2.6 million to be financed from government resources in cash.

^c In mid-2018 prices.

^d Physical contingencies computed at 5% for civil works. Price contingencies calculated based on Asian Development Bank (ADB) cost escalation factors.

^e Includes (a) Interest during construction for ADB OCR loan computed at the 5-year US dollar fixed swap rate corresponding to the implementation period plus an effective contractual spread of 0.5% and a maturity premium of 0.1%. Commitment charges for the ADB OCR loan are 0.15% per year to be charged on the undisbursed loan amount; (b) Interest of \$1.0 million during construction for ADB concessional loan with a 25-year term, including a grace period of 5 years; an interest rate of 2.0% per year during the grace period.

^f Includes interest and commitment charges. Interest during construction for the ADB loan is computed at the 5-year US dollar fixed swap rate corresponding to the implementation period plus an effective contractual spread of 0.35% and a maturity premium of 0.1% (for regular OCR part). Commitment charges for the ADB loan are 0.15% per year to be charged on the undisbursed loan amount.

Source: ADB estimates.

⁸ A road network with roadside gender-sensitive facilities such as shelters, rest areas, and safety measures—particularly in areas where female road users are more prevalent—also broadens access to markets, social infrastructure, and services.

18. The government has requested a regular loan of \$75 million from ADB's ordinary capital resources to help finance the project. The loan will have a 25-year term, including a grace period of 7 years; an annual interest rate determined in accordance with ADB's London interbank offered rate (LIBOR)-based lending facility; a commitment charge of 0.15% per year (the interest and other charges during construction to be capitalized in the loan); and such other terms and conditions set forth in the draft loan and project agreements. Based on the straight-line method, the average maturity is 15.98 years, and the maturity premium payable to ADB is 0.10% per year.

19. The summary of the financing plan is in Table 2. ADB will finance the expenditures related to civil works for road construction, consulting services, and implementation support. The proceeds of the ADB loans will be relented to the provincial government, and through the provincial government will be made available to the PKHA for the purposes of the project.

Table 2: Financing Plan

Source	Current ^a		Additional Financing		Total	
	Amount (\$ million)	Share of Total (%)	Amount (\$ million)	Share of Total (%)	Amount (\$ million)	Share of Total (%)
Asian Development Bank						
OCR (regular loan)	121.5	74.1	75.0	88.0	196.5	78.9
OCR (concessional loan)	18.5	11.3			18.5	7.4
Government of Khyber Pakhtunkhwa	24.0	14.6	10.0 ^b	12.0	34.0	13.7
Total	164.0	100.0	85.0	100.0	249.0	100.0

OCR = ordinary capital resources.

^a Refers to the original amount approved on 28 November 2017.

^b Includes \$2 million for the development of a Khyber Pakhtunkhwa road network master plan financed by the Government of Khyber Pakhtunkhwa.

Source: Asian Development Bank estimates.

20. Climate adaptation is estimated to cost \$3.84 million and ADB will finance 91% of this amount.

E. Implementation Arrangements

21. The existing implementation arrangements remain unchanged. The Government of Khyber Pakhtunkhwa will be the executing agency and the PKHA will be the implementing agency. A steering committee chaired by the additional chief secretary will provide oversight. The PKHA has established a functional project implementation unit (PIU) to implement the current project; and additional staff will be employed for the Mardan–Swabi road output. The provincial government has agreed that PIU staffing will remain stable throughout project implementation. Any replacement of key staff will be subject to ADB's prior approval.

22. The procurement of civil works and related services financed by ADB under the current project and the additional financing project will be done in accordance with ADB's Procurement Guidelines (2015, as amended from time to time). Both current project and the additional financing project will require consulting services for the supervision of works and capacity development, and will be recruited in accordance with ADB's Guidelines on the Use of Consultants (2013, as amended from time to time).

23. PKHA will pursue advance contracting and retroactive financing in line with ADB's Procurement Guidelines (2015, as amended from time to time) and has been advised that advance contracting and retroactive financing do not constitute a commitment from ADB to finance the additional financing project until the loan agreement and project agreement are signed and made effective. The additional financing project is categorized *procurement- and design-ready*. The procurement of the civil works and the recruitment of the construction supervision consultant have started. The implementation arrangements for the additional financing project are summarized in Table 3 and described in detail in the project administration manual (PAM).⁹

Table 3: Implementation Arrangements

Aspects	Arrangements		
Implementation period	March 2019–December 2023		
Estimated completion date	31 December 2023		
Loan closing date	30 June 2024		
Management			
(i) Oversight body	Steering committee comprising officials from the CWD, Finance Department, Planning and Development Department of Khyber Pakhtunkhwa, PKHA, and other relevant line departments. The additional chief secretary chairs the steering committee and the secretary of the CWD serves as the secretary.		
(ii) Executing agency	Government of Khyber Pakhtunkhwa		
(iii) Implementing agency	PKHA		
Procurement	ICB (works)	Two civil works contracts	\$58.1 million
	NCB (works)	One civil works contract to build the CWD central laboratory	\$1.3 million
Consulting service	Quality- and cost-based selection (90:10)	One contract for the supervision consulting firm (272 person-months)	\$2.17 million
	Individual consultants	Three contracts for technical advisors and training (12 person-months)	\$1.0 million
Retroactive financing and advance contracting	Civil works for road reconstruction, consulting services, and eligible incremental administrative costs, incurred up to 12 months before the signing of the respective loan agreement, subject to the ceiling of 20% of the respective loan amounts.		
Disbursement	The loan proceeds will be disbursed following ADB's <i>Loan Disbursement Handbook</i> (2017, as amended from time to time) and detailed arrangements agreed between the Government of Khyber Pakhtunkhwa and ADB.		

ADB = Asian Development Bank, CWD = Communication and Works Department, ICB = international competitive bidding, NCB = national competitive bidding, PKHA = Pakhtunkhwa Highways Authority.

Source: ADB estimates.

III. DUE DILIGENCE

A. Technical

24. The additional financing project has no technical challenges. A national design consulting firm engaged by the CWD prepared its detailed design. It will widen the existing two-lane Mardan–

⁹ Project Administration Manual (accessible from the list of linked documents in Appendix 2).

Swabi road into a four-lane divided highway on both sides of the existing carriageway along the existing alignment, maximizing the use of existing pavement. New Jersey barriers or an open median will separate the two-way traffic with improved intersection design and U-turns to eliminate potential collisions and other safety hazards. Service roads are provided to segregate the non-motorized traffic when space is allowed. The detailed design also includes construction of: (i) 11 footbridges and two underpasses to provide safer crossing for pedestrians, (ii) a dedicated lane for slow-moving traffic to segregate fast-moving traffic to improve the road safety when space is allowed, and (iii) a covered side drain and lighting in urban sections. The detailed design consultant conducted a road safety audit and incorporated most of the advice either in the final design or to be included during construction stage. The design, especially for bridges, culverts and drainage facilities, considers the impact of climate change and natural disasters such as floods.

B. Economic and Financial

25. **Economic.** The economic analysis confirms that the additional financing project is economically viable with an economic internal rate of return of 10%, and a net present value of \$11.5 million at a 9% discount rate. Economic benefits from the project comprise reduced routine and periodic maintenance costs for the road agency, and savings in vehicle operating costs and travel time after dualization. The economic viability is robust against increases in capital costs as well as a reduction in benefits. The economic analysis does not include road safety benefits, which will accrue from road safety improvement features. Sensitivity tests revealed that the project is robust against all major parameters, including increases in capital costs and reductions in forecast traffic.

26. **Financial.** A review of the financial position of the PKHA indicates that the province should be able to allocate sufficient funds for road maintenance to ensure that the project road can be sustained. The current road maintenance budget is less than 10% of the total PKHA budget and is funded from a combination of its own revenues and allocations from the provincial government. In previous years, whenever the length of roads to be maintained under the PKHA budget increased, Khyber Pakhtunkhwa increased the maintenance budget.

27. The PKHA undertook a program analysis using Highway Development and Management Model 4, which suggests that the network could be maintained in good condition under an unconstrained budget scenario of PRs3.00 billion per year, as opposed to the budget allocation of PRs1.05 billion for 2017–2018, which would result in average road conditions remaining poor. The PKHA is committed to increasing the budget allocation and raises some of its revenues from tolls, but the number of sites is limited, so it is heavily dependent on money allocated from the provincial budget. The introduction of tolls on roads that have been upgraded will assist in ensuring that the roads can be properly maintained in the future. Tolling the project road at rates currently applicable to national highways will generate enough revenue to pay for incremental routine and periodic maintenance.

C. Governance

28. ADB assessed the PKHA's capacity for procurement and financial management as essential part of project implementation and found it to be sufficient for managing the procurement, financial, and implementation tasks, including maintaining the accounting systems, financial controls, and audit arrangements. The PKHA's financial management risk is substantial prior to mitigation measures. The project team defined an action plan with mitigation measures in the financial management section of the PAM. The PKHA is experienced and familiar with ADB's

procurement and consultant recruitment procedures from successfully procuring nine civil works contracts and one consultant contract under the current project. ADB will conduct further training on strengthening the grievance redress mechanism for matters of procurement, accountability, and contract management during project implementation.

29. ADB's Anticorruption Policy (1998, as amended to date) was explained to and discussed with the government and the PKHA. The specific policy requirements and supplementary measures are described in the PAM.

D. Poverty and Social

30. The project team conducted public consultations with the communities along the proposed 42 km Mardan–Swabi road project. An analysis of key stakeholder perceptions and concerns about the additional financing project shows positive feedback and no major adverse social impacts. The main direct beneficiaries of the project will be agricultural traders, freight forwarders, transporters, commuters, and those living and working along the project road sections. Indirect beneficiaries include large segments of the population who will gain from more employment opportunities in trade and transport and ready access to markets and resources in the province. The local population will benefit from job creation during construction and operation of the additional financing project. The project has been categorized *some gender elements* because women will benefit from better access to basic social services such as health, education, and social networking facilities. To enhance road users' convenience and comfort, PKHA will incorporate road safety features in the engineering designs, which will help reduce accidents and fatalities along Mardan–Swabi road. In addition, PKHA will include the following key gender actions during implementation: (i) road safety measures such as footbridges near schools, hospitals, and other areas frequently visited by women and children; (ii) roadside bus shelters for women passengers; (iii) capacity building for women staff at the CWD; and (iv) additional assistance to households headed by women as part of the resettlement plan, if necessary. The additional financing will also include the development of a Khyber Pakhtunkhwa road network master plan which will be fully gender-responsive (footnote 8).

E. Safeguards

31. **Environment (category B).** The design consultant engaged by the PKHA prepared an initial environmental examination (IEE) and an environmental management plan (EMP) in accordance with ADB's Safeguard Policy Statement (2009). IEE anticipates environmental impacts during construction to be predominantly site-specific and temporary. Among them are potential traffic disruptions; limited access to adjoining properties; noise, vibration, and air quality impacts on sensitive receptors; utility relocation; logging of roadside trees, and impacts related to occupational and community health and safety. During operation, the additional financing project will likely have impacts related to higher noise and air pollution levels, as well as community health and safety. It can also cause community severance while additional lanes and the median are being built. The consultant designed adequate mitigation measures and will implement them through the EMP. PKHA will ensure community cohesion and road safety through the project design, including "traffic calming".¹⁰ Since the PKHA's environmental safeguard capacity is still weak, the EMP will include capacity building and training of PIU staff in environmental management. An environment specialist under the construction supervision consulting firm will support the PIU in ensuring effective EMP implementation by contractors. The consultant held

¹⁰ Traffic calming uses physical design and other measures to improve safety for motorists, pedestrians and cyclists. It aims to encourage safer, more responsible driving and potentially reduce traffic flow.

public consultations in the project area in December 2017. The project team disclosed the draft IEE and the EMP on ADB's website on 19 October 2018.

32. **Involuntary resettlement (category B).** The additional financing project will undertake the proposed road dualization work within the existing right of way, with widths varying from 25 to 32 meters. About 38 structures (owned by 38 families) are expected to be impacted partially. The impacts are limited to the sunroof sheds of 8 commercial structures, boundary walls of 4 residential structures, and 26 mobile vendors who will need to move away from the formation width (within right of way). Additionally, government departments will need to relocate 3,116 wood and forest trees, 24 bus stop sheds, and 558 telephone and electricity poles. The impacts are deemed insignificant, however, because no affected person or family will be physically displaced from housing and/or lose 10% or more of their income-generating resources. Therefore, the project is classified *category B* for involuntary resettlement. The PKHA has prepared a draft resettlement plan in accordance with the Safeguard Policy Statement (2009), which was disclosed on ADB's website on 10 September 2018.

33. The PIU will implement the resettlement plan through its environment and social unit (ESU). A deputy director will serve as ESU's head, supported by the social safeguards specialist of the construction supervision firm. The specialist will assist ESU in updating, implementing, and monitoring the resettlement plan. PKHA has established a functioning grievance redress mechanism, headed by the project director, besides setting up four grievance redress committees in built-up areas. PIU will prepare the internal monitoring reports semiannually. A qualified and experienced external monitoring expert, acceptable to ADB, will verify these internal monitoring reports, identify issues, and recommend corrective measures, if needed. All monitoring reports will be disclosed on the ADB website.

34. **Indigenous peoples (category C).** The additional financing project does not involve any distinct ethnic minority community in the project areas, so it does not trigger requirements on indigenous peoples under the Safeguard Policy Statement.

F. Risks and Mitigating Measures

35. Significant risks and mitigating measures are summarized in Table 4 and described in detail in the risk assessment and risk management plan.¹¹

Table 4: Summary of Risks and Mitigating Measures

Risks	Mitigating Measures
The government's continuously insufficient budget for the road transport sector and unbalanced public investments in favor of road construction rather than road maintenance result in the unsustainability of road maintenance.	ADB will maintain its policy dialogue with the Government of Khyber Pakhtunkhwa about increasing the annual budget for road maintenance. The target will be linked with the outcomes of RAMS which will be improved and upgraded under the existing project. Tolling is considered for some road sections of the overall project to increase the revenue of the PKHA. A PBM pilot under the current project will explore ensuring ways to commit maintenance fund on contractual term.
The government may not approve the preparation of the Khyber Pakhtunkhwa road network master plan because of budget constraints.	The steering committee approved to finance the development of the Khyber Pakhtunkhwa road network master plan with the provincial budget. It was agreed that any future ADB funded projects will be based on the master plan to give incentive to the provincial government.

¹¹ Risk Assessment and Risk Management Plan (accessible from the list of linked documents in Appendix 2).

ADB = Asian Development Bank, PBM = performance-based maintenance, PKHA = Pakhtunkhwa Highways Authority, RAMS = road asset management system.

Source: Asian Development Bank.

IV. ASSURANCES

36. The Government of Pakistan, the Government of Khyber Pakhtunkhwa, and the PKHA have assured ADB that implementation of the additional financing project shall conform to all applicable ADB policies, including those concerning anticorruption measures, safeguards, gender, procurement, consulting services, and disbursement as described in detail in the PAM and loan documents. The Government of Pakistan, the Government of Khyber Pakhtunkhwa, and the PKHA have agreed with ADB on certain covenants for the additional financing project, which are set forth in the draft loan agreement and project agreement.

V. RECOMMENDATION

37. I am satisfied that the proposed loan would comply with the Articles of Agreement of the Asian Development Bank (ADB) and, acting in the absence of the President, under the provisions of Article 35.1 of the Articles of Agreement of ADB, I recommend that the Board approve the loan of \$75,000,000 to the Islamic Republic of Pakistan for the additional financing of the Khyber Pakhtunkhwa Provincial Roads Improvement Project, from ADB's ordinary capital resources, in regular terms, with interest to be determined in accordance with ADB's London interbank offered rate (LIBOR)-based lending facility; for a term of 25 years, including a grace period of 7 years; and such other terms and conditions as are substantially in accordance with those set forth in the draft loan and project agreements presented to the Board.

Stephen Groff
Vice-President

16 November 2018

REVISED DESIGN AND MONITORING FRAMEWORK

Impact the Project is Aligned with			
<p>Current project An efficient and integrated transportation network established (Pakistan Vision 2025)^a</p> <p>Overall project Above impact unchanged</p>			
Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting Mechanisms	Risks
<p>Outcome Current project Efficiency and safety along key sections of the Khyber Pakhtunkhwa provincial road network improved</p> <p>Overall project Unchanged</p>	<p>a. Average travel speed along the project roads increased to 60 km per hour by 2024 (2017 baseline: 45 km per hour)</p> <p>b. The International Road Assessment Program safety rating for the project roads increased to three stars or higher by 2024 (2017 baseline: one star)</p> <p>a–b. Unchanged</p>	<p>a–b. PKHA’s survey report</p> <p>a–b. PKHA’s survey report</p>	<p>The government’s insufficient budget for the road transport sector and unbalanced public investments (favoring road construction over road maintenance) result in unsustainable road maintenance.</p>
<p>Outputs Current project Output 1 Provincial roads rehabilitated</p> <p>Overall project Output 1 Unchanged</p>	<p>1a. About 214 km of provincial roads rehabilitated by 2023 (2017 baseline: not applicable)</p> <p>1b. Pavement international roughness index of project roads increased to 3.0 meter/km by 2023 (2017 baseline: 7.0 meter/km)</p> <p>1c. 20% of the project road sections rehabilitated with gender design features^b</p> <p>1a–1c. Unchanged</p>	<p>1a–1c. PKHA’s survey report</p> <p>1a–1d. PKHA’s survey report</p>	

Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting Mechanisms	Risks
<p>Current project Output 2 The CWD's institutional capacity for road maintenance strengthened</p>	<p>1d. Dualization of 42 km of the Mardan–Swabi road with gender design features completed by 2023</p> <p>2a. Two pilot PBM contracts for a total length of 104 km completed by 2023 (2017 baseline: none)</p> <p>2b. Laboratory and maintenance equipment acquired and used by the PKHA from 2019 (2017 baseline: none)</p> <p>2c. More than 30 PKHA staff trained in the RAMS, social safeguards, and gender-sensitive planning by 2020 (2017 baseline: none)</p> <p>2d. Annual maintenance plans and budget reports prepared with the RAMS from fiscal year 2021 onward (2017 baseline: none)</p>	<p>2a–2c. Consultant's report as endorsed by the government and PKHA project progress reports</p> <p>2d. Annual PKHA road maintenance plan and budget reports</p>	<p>The PBM pilot cannot be implemented because of the reluctance of the government and local contracting industry.</p>
<p>Overall project Output 2 Unchanged</p>	<p>2a–2d. Unchanged</p> <p>2e. Gender-responsive Khyber Pakhtunkhwa road network master plan developed and approved by the government (2017 baseline: none)</p> <p>2f. Central laboratory built at the PKHA by 2020 (2018 baseline: none)</p>	<p>2a–2d. Unchanged</p> <p>2e–2f. Consultant's report as endorsed by the government, and PKHA project progress reports</p>	<p>The Khyber Pakhtunkhwa road network master plan may not be approved by the government because the budget allocation is inadequate.</p>

Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting Mechanisms	Risks
	2g. At least 120 CWD staff (at least 10 of them women) receive training and have better knowledge of road management by 2020 (2018 baseline: 0)	2g. Participant feedback survey conducted by the PIU	

Activities with Key Milestones (overall project)

1. Provincial roads rehabilitated

- 1.1 Recruit construction supervision consulting firm (completed).
- 1.2 Award civil works contracts for about 214 km of provincial roads (completed).
- 1.3 Complete civil works contracts for about 214 km of provincial roads by March 2021.
- 1.4 Award civil works contracts for the dualization of 42 km of the Mardan–Swabi road by April 2019.
- 1.5 Complete civil works contracts for the dualization of 42 km of the Mardan–Swabi road by March 2023.

2. The CWD's institutional capacity on road maintenance strengthened

- 2.1 Award PBM contracts by December 2019.
- 2.2 Complete PBM contracts by April 2024.
- 2.3 Procure laboratory and maintenance equipment by December 2018 and install by May 2019.
- 2.4 Conduct RAMS training sessions by December 2020.
- 2.5 Implement the RAMS from January 2021.
- 2.6 Develop an annual PKHA maintenance plan and budget based on RAMS inputs from 2021.
- 2.7 Award consultancy contract for Khyber Pakhtunkhwa road network master plan developed by June 2019.
- 2.8 Complete Khyber Pakhtunkhwa road network master plan by April 2022.
- 2.9 Award consultancy contract for training by December 2019.
- 2.10 Complete training by December 2023.
- 2.11 Award civil works contract for the central laboratory by December 2019.
- 2.12 Complete the construction of the central laboratory by December 2020.

Inputs

	ADB		Government
	Regular OCR Loan	Concessional OCR Loan	
	(\$ million)		
Current	121.5	18.5	24.0
Additional	75.0	0.0	10.0
Overall	196.5	18.5	34.0

Assumptions for Partner Financing

Current project: Not applicable

Overall project: Unchanged

ADB = Asian Development Bank, CWD = Communication and Works Department, km = kilometer, OCR = ordinary capital resources, PBM = performance-based maintenance, PIU = project implementation unit, PKHA = Pakhtunkhwa Highways Authority, RAMS = road asset management system.

^a Government of Pakistan, Ministry of Planning, Development and Reforms. 2014. [Pakistan 2025: One Nation, One Vision](#). Islamabad.

^b A road network with roadside gender-sensitive facilities such as shelters, rest areas, and safety measures, particularly in areas where women road users are prevalent, increases commuters' access to markets, social infrastructure, and services.

Source: Asian Development Bank.

LIST OF LINKED DOCUMENTS

<http://www.adb.org/Documents/RRPs/?id=47360-003-3>

1. Loan Agreement: Ordinary Operations
2. Project Agreement
3. Sector Assessment (Summary): Transport (Road Transport [Nonurban])
4. Project Administration Manual
5. Contribution to the ADB Results Framework
6. Development Coordination
7. Economic and Financial Analysis
8. Country Economic Indicators
9. Summary Poverty Reduction and Social Strategy
10. Initial Environmental Examination
11. Resettlement Plan
12. Risk Assessment and Risk Management Plan

Supplementary Document

13. Climate Change Assessment