



# Report and Recommendation of the President to the Board of Directors

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Project Number: 48402-002  
May 2016

## Proposed Loan for Additional Financing and Administration of Loan and Grant for Additional Financing Islamic Republic of Pakistan: National Motorway M-4 Gojra–Shorkot–Khanewal Section Project

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Asian Development Bank

## CURRENCY EQUIVALENTS

(as of 19 May 2016)

Currency unit	–	Pakistan rupee/s (PRe/PRs)
PRe1.00	=	\$0.009542
\$1.00	=	PRs104.80
\$1.00	=	£0.68498

## ABBREVIATIONS

ADB	–	Asian Development Bank
AIIB	–	Asian Infrastructure Investment Bank
CAREC	–	Central Asia Regional Economic Cooperation
EIA	–	environmental impact assessment
EMP	–	environmental management plan
GDP	–	gross domestic product
km	–	kilometer
LARP	–	land acquisition and resettlement plan
m	–	meter
NHA	–	National Highway Authority
O&M	–	operation and maintenance
PAM	–	project administration manual
PIU	–	project implementation unit

## NOTE

In this report, “\$” refers to US dollars and “£” refers to pounds sterling.

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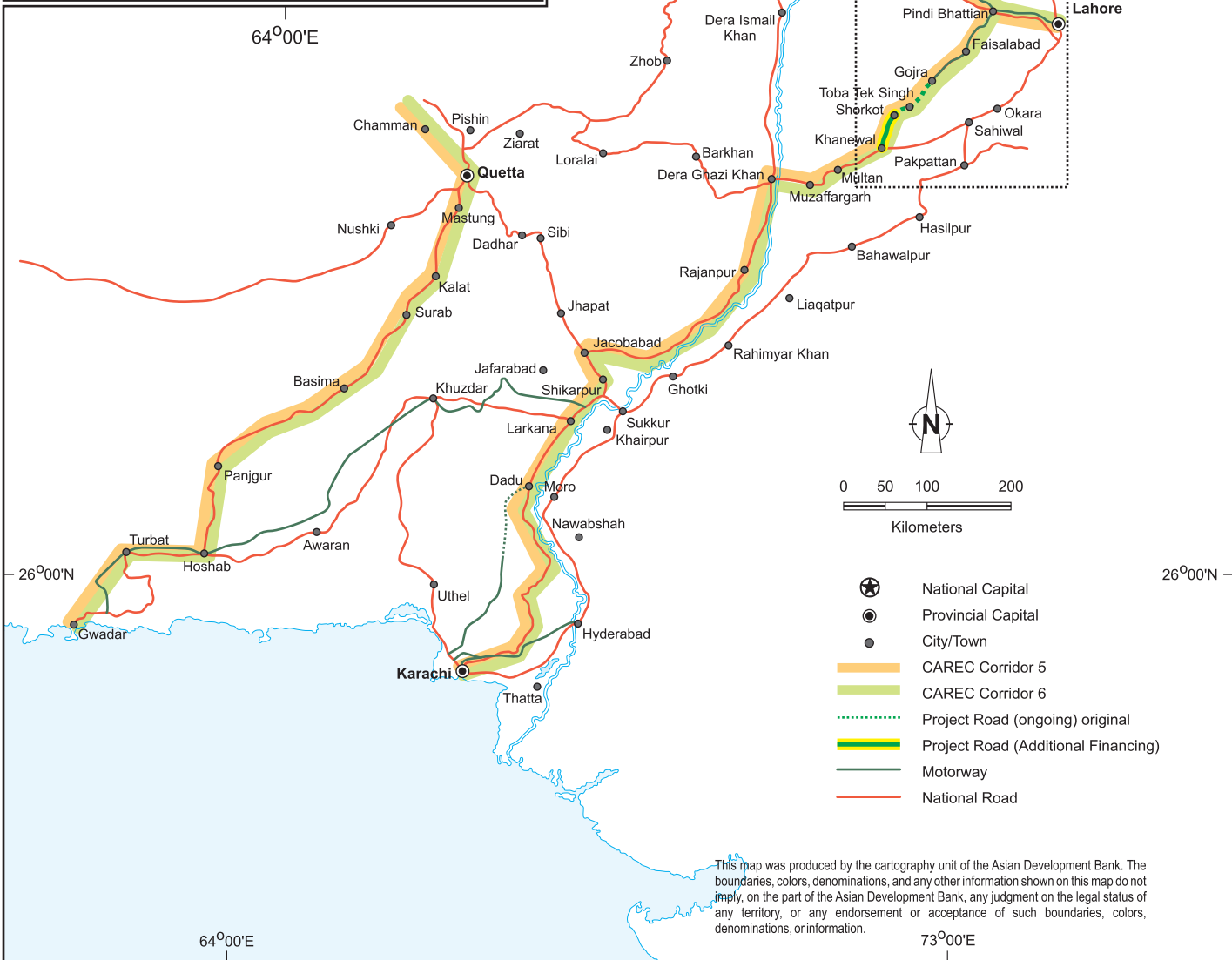
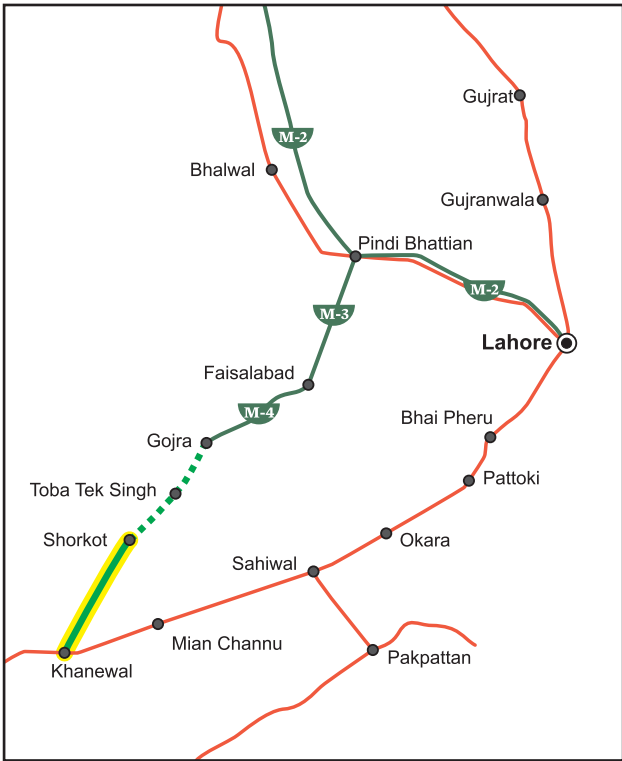
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## PROJECT AT A GLANCE

<b>1. Basic Data</b>		<b>Project Number:</b> 48402-002	
<b>Project Name</b>	National Motorway M-4 Gojra–Shorkot–Khanewal Section Project - Additional Financing	<b>Department /Division</b>	CWRD/CWTC
<b>Country Borrower</b>	Pakistan Pakistan	<b>Executing Agency</b>	National Highway Authority
<b>2. Sector</b>	<b>Subsector(s)</b>	<b>ADB Financing (\$ million)</b>	
✓ <b>Transport</b>	Road transport (nonurban)		100.00
		<b>Total</b>	<b>100.00</b>
<b>3. Strategic Agenda</b>	<b>Subcomponents</b>	<b>Climate Change Information</b>	
Inclusive economic growth (IEG)	Pillar 1: Economic opportunities, including jobs, created and expanded	Adaptation (\$ million)	12.00
Environmentally sustainable growth (ESG)	Global and regional transboundary environmental concerns	Climate Change impact on the Project	Medium
Regional integration (RCI)	Pillar 1: Cross-border infrastructure		
<b>4. Drivers of Change</b>	<b>Components</b>	<b>Gender Equity and Mainstreaming</b>	
Governance and capacity development (GCD)	Institutional development	No gender elements (NGE)	✓
Partnerships (PAR)	Bilateral institutions (not client government) International finance institutions (IFI) Official cofinancing		
<b>5. Poverty Targeting</b>		<b>Location Impact</b>	
Project directly targets poverty	No	Regional	High
<b>6. Risk Categorization:</b>	Complex		
<b>7. Safeguard Categorization</b>	<b>Environment: A Involuntary Resettlement: A Indigenous Peoples: C</b>		
<b>8. Financing</b>			
<b>Modality and Sources</b>		<b>Amount (\$ million)</b>	
<b>ADB</b>		<b>100.00</b>	
Sovereign Project loan: Ordinary capital resources		100.00	
<b>Cofinancing</b>		<b>134.00</b>	
Government of the United Kingdom - Grant		34.00	
Asian Infrastructure Investment Bank (AIIB) - Loan		100.00	
<b>Counterpart</b>		<b>39.00</b>	
Government		39.00	
<b>Total</b>		<b>273.00</b>	
<b>9. Effective Development Cooperation</b>			
Use of country procurement systems		No	
Use of country public financial management systems		Yes	

# PAKISTAN NATIONAL MOTORWAY M-4 GOJRA-SHORKOT-KHANEWAL SECTION PROJECT



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## I. THE PROPOSAL

1. I submit for your approval the following report and recommendation on a proposed loan to the Islamic Republic of Pakistan for the additional financing of the National Motorway M-4 Gojra–Shorkot–Khanewal Section Project.<sup>1</sup> The report also describes (i) the proposed administration of a grant to be provided by the Government of the United Kingdom, and (ii) the proposed administration of a loan to be provided by the Asian Infrastructure Investment Bank (AIIB), both for the additional financing of the National Motorway M-4 Gojra–Shorkot Section Project, and if the Board approves the proposed loan, I, acting under the authority delegated to me by the Board, approve the administration of the grant and loan for the additional financing.<sup>2</sup>

2. The additional financing will support an increase in the scope of the current project by constructing a 64-kilometer (km) four-lane, access-controlled motorway connecting Shorkot and Khanewal in Punjab province,<sup>3</sup> which is the last remaining section of the national motorway M-4 to be constructed. The overall project will facilitate north–south connectivity, improve the quality and efficiency of road transport services, and promote inclusive economic growth.

## II. THE PROJECT

### A. Rationale

3. The primary north–south transport corridor in Pakistan runs from Torkham on the northern border with Afghanistan and passes through primary production and population centers such as Peshawar, Islamabad, Faisalabad, Lahore, Khanewal, Multan, and Muzaffargarh, before reaching the port city of Karachi in the south. The corridor, which is about 1,800 km long, comprises national highways and motorways and connects the key centers of economic activity in the country. The corridor serves the economy of an area that accounts for 80%–85% of Pakistan's gross domestic product (GDP) and, in the regional context, forms an integral part of the Central Asia Regional Economic Cooperation (CAREC) corridors 5 and 6. After Pakistan's accession to the CAREC Program in 2010, the corridors have become vital trading routes between landlocked Central Asian nations and Pakistan's warm-water ports of Gwadar, Karachi, and Port Qasim on the Arabian Sea.

4. The national motorway M-4, connecting Faisalabad with Multan, will be a part of the north–south transport corridor. Its area of influence, which includes Faisalabad, Multan, and the entire Punjab province, accounts for about 56% of the country's population and for 59% of the country's GDP. The M-4 will extend the already completed M-1, M-2, and M-3 motorways southward and shorten the distance between Multan and the twin cities of Islamabad and Rawalpindi in the north. The Faisalabad–Gojra section (58 km) of the M-4 was completed in 2014 with financing from the Asian Development Bank (ADB), while the Islamic Development Bank supported the completion of the adjoining Khanewal–Multan section (57 km) in 2015. Civil works for the Gojra–Shorkot section (62 km), cofinanced by ADB and the Government of the United Kingdom (footnote 1), commenced in April 2016. The proposed additional financing will be applied to the construction of the remaining 64 km section between Shorkot and Khanewal. Upon completion, the new four-lane, access-controlled M-4 will provide a faster, safer, and more

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<sup>1</sup> Asian Development Bank (ADB). 2015. *Report and Recommendation of the President to the Board of Directors: Proposed Loan and Administration of Grant to the Islamic Republic of Pakistan for the National Motorway M-4 Gojra–Shorkot Section Project*. Manila.

<sup>2</sup> The design and monitoring framework is in Appendix 1.

<sup>3</sup> The project is included in ADB. 2015. *Country Operations Business Plan: Pakistan, 2016–2018*. Manila.

cost-effective alternative to the existing narrow and congested routes, notably in the heavily trafficked Faisalabad and Khanewal–Multan–Muzaffargarh areas.

5. The implementation of the current project is progressing well with an *on track* project performance rating and identified risks being appropriately managed. The project is financed by a combined loan and grant of \$270 million equivalent approved on 30 September 2015. The loan and grant became effective on 17 December 2015 and will close on 31 May 2020. All civil works contracts were awarded on 27 December 2015. As effective competition among international and national bidders resulted in awards that were lower than the estimates, loan savings of approximately \$50 million were achieved. Both the construction supervision consultant and the social safeguard management consultant were mobilized in February 2016. The institutional strengthening component on safeguard and contract administration is progressing well and benefiting the implementation of the project. The project is complying satisfactorily with ADB safeguard policy requirements. The proposed additional financing will close the remaining 64 km gap between Shorkot and Khanewal, which will enable the realizing of the full benefits associated with the M-4. Given the strong links with the current project in terms of design and implementation arrangements and also the efficiency gains in loan delivery time, additional financing is deemed a suitable instrument to scale up the current project. The prospect of providing additional financing had already been raised in the report and recommendation of the President for the current project. All necessary due diligence has been conducted. The project meets ADB's eligibility criteria for additional financing as it (i) remains technically feasible, economically viable, and financially sound; (ii) is accorded high priority by the government; and (iii) is consistent with the project's development objectives and current country partnership strategy.

6. The increase in scope and the additional financing do not change the development objectives of the current project. The project is consistent with the strategic goals and government priorities.<sup>4</sup> The transport sector in Pakistan contributes about 10% to GDP and employs about 2.3 million people (about 6% of the active labor force of Pakistan). Road transport dominates Pakistan's transport system, accounting for almost 96% of freight traffic in ton-kilometers and 92% of passenger traffic in passenger-kilometers. An improved north–south corridor will reduce the time and cost of moving goods and people along the entire logistics and supply chain. It will be instrumental in removing one of the key constraints on raising competitiveness, attracting private sector investment, increasing productivity, as well as deepening and diversifying the industrial base. The project will thus go a long way toward providing sustainable jobs to a growing population. The project is also consistent with ADB's country partnership strategy, 2015–2019 for Pakistan;<sup>5</sup> fits with ADB's Midterm Review of Strategy 2020;<sup>6</sup> supports the CAREC Transport and Trade Facilitation Strategy 2020;<sup>7</sup> and is included in ADB's country operations business plan, 2016–2018 for Pakistan (footnote 3).

7. Regardless of the absolute amounts involved in ADB's financial assistance to Pakistan, the scope of the assistance is relatively insignificant compared to the country's substantial financing needs for the development of its transport infrastructure. ADB has, therefore, been active in seeking additional resources to complement its own. This includes securing in June 2015 a grant contribution of £262 million over 2015–2020 from the Government of the United Kingdom for the development of the Pakistan Economic Corridors Program. The main focus of

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<sup>4</sup> Government of Pakistan, Ministry of Planning, Development and Reforms. 2014. *Pakistan 2025: One Nation, One Vision*. Islamabad. <http://pakistan2025.org>

<sup>5</sup> ADB. 2015. *Country Partnership Strategy: Pakistan, 2015–2019*. Manila.

<sup>6</sup> ADB. 2014. *Midterm Review of Strategy 2020: Meeting the Challenges of a Transforming Asia and Pacific*. Manila.

<sup>7</sup> ADB. 2014. *CAREC Transport and Trade Facilitation Strategy 2020*. Manila.



this intervention will be on developing strategic sections of the CAREC corridors in Pakistan, including the motorway M-4. In addition, ADB and AIIB are working to conclude a cofinancing agreement, based on which the infrastructure needs of motorway M-4 will be met. The additional non-ADB resources will, jointly with ADB's own efforts, support Pakistan Vision 2025 (footnote 4), the CAREC Transport and Trade Facilitation Strategy 2020, and ADB's strategic objectives.

## B. Impact and Outcome

8. The impact and outcome for the overall project will remain unchanged from those for the current project. The impact will be the modernization of transportation infrastructure and greater regional connectivity to support a vibrant and growing economy, as highlighted in Pakistan Vision 2025. The outcome will be an efficient and safer transport corridor between Islamabad, Faisalabad, and Multan that enhances the connectivity between the various parts of the country.

## C. Outputs

9. The proposed additional financing will enable the expansion of the project outputs. The incremental outputs will be that 64 km of four-lane, access-controlled motorway connecting Shorkot and Khanewal is constructed and serviceable.<sup>8</sup>

## D. Investment and Financing Plans

10. The overall project cost is estimated to be \$590 million (Table 1).

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

Item	Current Amount <sup>a</sup>	Additional Financing <sup>b</sup>	Total
<b>A. Base Cost<sup>c</sup></b>			
1. M-4 Gojra–Shorkot road	241.6	0.0	241.6
2. M-4 Shorkot–Khanewal road	0.0	245.7 <sup>e</sup>	245.7
3. Institutional strengthening	6.7	0.0	6.7
<b>Subtotal (A)</b>	<b>248.3</b>	<b>245.7</b>	<b>494.0</b>
<b>B. Contingencies<sup>d</sup></b>	<b>59.7</b>	<b>17.0<sup>e</sup></b>	<b>76.7</b>
<b>C. Financing Charges during Implementation<sup>f</sup></b>	<b>9.0</b>	<b>10.3</b>	<b>19.3</b>
<b>Total (A+B+C)</b>	<b>317.0</b>	<b>273.0</b>	<b>590.0</b>

<sup>a</sup> Refers to the original amount approved on 30 September 2015. Includes taxes and duties and land acquisition and resettlement of about \$27.0 million to be financed from government resources.

<sup>b</sup> Includes taxes and duties and land acquisition and resettlement of about \$35.0 million to be financed from government resources.

<sup>c</sup> In December 2015 prices for the additional financing portion.

<sup>d</sup> Physical contingencies of 5% after additional financing. Price contingencies were estimated using the Asian Development Bank (ADB) cost escalation factors, including provision for potential exchange rate fluctuation and price adjustment under the civil works contract.

<sup>e</sup> Loan savings of approximately \$50 million under the ongoing ADB. 2015. *Report and Recommendation of the President to the Board of Directors: Proposed Loan and Administration of Grant to the Islamic Republic of Pakistan for the National Motorway M-4 Gojra–Shorkot Section Project*. Manila (as a result of effective competition among

<sup>8</sup> The Shorkot–Khanewal section of motorway M-4 is a four-lane, access-controlled road facility with shoulders of 3.65 meters (m). The design speed is 120 km per hour, and the maximum grade is 4%. The scope of construction work includes earthworks, asphalt concrete pavement, bridges, crossing structures (underpasses and pipe culverts), interchanges, weighbridges, toll plaza and multipurpose service areas, and roadside improvements and safety features such as traffic signs, road markings, traffic barriers, guardrails, and road lighting. Two multi-span bridges crossing the Ravi River (bridge length 225 m) and the Sidhnaï Channel (245 m) will be constructed.

international and national bidders for the civil works contracts, resulting in awards below the estimates) will be utilized to cover civil works and contingencies in relation to the M-4 Shorkot–Khanewal road section. Upon approval of the additional financing, the financing agreements for the current M-4 Gojra–Shorkot road section will be amended to permit such use.

<sup>f</sup> Includes estimated interest charges financed from ADB and/or the Asian Infrastructure Investment Bank loan. Sources: National Highway Authority and Asian Development Bank estimates.

11. The government has requested (i) a loan of \$100 million from ADB's ordinary capital resources, (ii) a grant of £23.48 million (\$34 million equivalent) from the Government of the United Kingdom, and (iii) a loan of \$100 million from AIIB to help finance the project. The government will contribute \$39 million for the project. The financing plan is in Table 2.

**Table 2: Financing Plan**  
(\$ million)

Source	Current <sup>a</sup>		Additional Financing		Total	
	Amount (\$ million)	Share of Total (%)	Amount (\$ million)	Share of Total (%)	Amount (\$ million)	Share of Total (%)
Asian Development Bank ordinary capital resources	178.0 <sup>b</sup>	56.2	100.0	36.6	278.0	47.1
Government of the United Kingdom (grant) <sup>c</sup>	92.0 <sup>d</sup>	29.0	34.0	12.5	126.0	21.4
Asian Infrastructure Investment Bank (loan)	...	...	100.0	36.6	100.0	16.9
Government of Pakistan	47.0	14.8	39.0	14.3	86.0	14.6
<b>Total</b>	<b>317.0</b>	<b>100.0</b>	<b>273.0</b>	<b>100.0</b>	<b>590.0</b>	<b>100.0</b>

... = not available.

<sup>a</sup> Refers to the original amount and any previous additional financing.

<sup>b</sup> Of this amount, approximately \$50 million (reflecting the amount of loan savings as a result of effective competition among international and national bidders for the civil works contracts, resulting in awards below the estimates) will be applied toward financing civil works and contingencies of the M-4 Shorkot–Khanewal road section. Upon approval of the additional financing, the financing agreements for the current M-4 Gojra–Shorkot road section will be amended accordingly.

<sup>c</sup> Administered by the Asian Development Bank. Amount includes bank charges.

<sup>d</sup> The original financing of the United Kingdom grant is £58.85 million, which is equivalent to \$84.7 million due to currency fluctuation (£1 = \$1.4385 on 30 March 2016). Any shortfall in project funds resulting from depreciation of the pound sterling shall be at the risk of the government.

Source: Asian Development Bank estimates.

12. The ADB loan will have a 25-year term, including a grace period of 5 years, a custom-tailored repayment method, 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 (interest and other charges during construction to be capitalized in the loan), and such other terms and conditions as set forth in the draft loan and project agreements. Based on this, the average loan maturity is 15.99 years and the maturity premium payable to ADB is 0.10% per annum. It is expected that the AIIB loan will have a 20-year term, including a grace period of 5 years, an annual interest rate determined in accordance with AIIB's sovereign-backed loan pricing, a commitment charge of 0.25% per year, a one-time front-end fee of 0.25% charged on loan principal, and such other terms and conditions set forth in the draft AIIB loan agreement. It is also expected that the AIIB loan will be administered by ADB<sup>9</sup> and primarily limited to the financing of civil works. The AIIB loan, along with the ADB loan, will be front-loaded for disbursement purposes. The grant from the Government of the United Kingdom, fully administered by ADB, will finance the civil works for the overall project.

<sup>9</sup> This is subject to conclusion of the final cofinancing agreement between ADB and AIIB, which is being discussed between the parties. AIIB will enter into a separate loan agreement with the Government of Pakistan.

## E. Implementation Arrangements

13. The additional financing does not entail any changes in the existing implementation arrangements. The National Highway Authority (NHA) remains the executing agency. The project implementation unit (PIU) under the NHA—which is implementing the M-4 Gojra–Shorkot section and has suitably qualified staff, including project directors, engineers, and financial and safeguard specialists—will also be responsible for day-to-day management of the additional financing. The activities financed by the additional financing do not require additional capacity at the PIU.

14. All procurement financed under the ADB loan, including the ADB-administered loan and grant, will follow international competitive bidding procedures pursuant to ADB's Procurement Guidelines (2015, as amended from time to time) and ADB's prior review. As the project will be cofinanced by the Government of the United Kingdom and AIIB and administered by ADB, universal procurement will be applied.<sup>10</sup> The consulting firm Renardet SA Ingénieurs Conseils, which has been recruited under the current project, will also provide construction supervision services for civil works under the additional financing.

15. Advance actions in line with ADB's Procurement Guidelines have been taken to facilitate project implementation. The implementation arrangements for the incremental outputs are summarized in Table 3 and described in detail in the project administration manual (PAM).<sup>11</sup>

**Table 3: Implementation Arrangements for Shorkot–Khanewal Section**

Aspects	Arrangements		
Implementation period	June 2016–June 2020		
Estimated completion date	30 June 2020		
ADB and AIIB loan closing date	31 December 2020		
Government of the United Kingdom grant closing date	31 March 2020		
Management			
(i) Oversight body	Steering committee, NHA		
(ii) Executing agency	NHA		
(iii) Implementation unit	Project implementation unit, NHA, Faisalabad		
Procurement	International competitive bidding	Up to two contracts (civil works)	\$260 million
Retroactive financing and/or advance contracting	ADB approved advance contracting on 6 October 2015. Retroactive financing is allowed for expenditure incurred up to 12 months prior to the date of signing of the ADB loan, the AIIB loan, and the Government of the United Kingdom grant agreement, subject to the ceiling of 15% of the loan and grant amounts.		
Disbursement	The proceeds of the ADB loan and its administered cofinancing will be disbursed in accordance with ADB's <i>Loan Disbursement Handbook</i> (2015, as amended from time to time) and detailed arrangements agreed between the government, ADB, and AIIB.		

ADB = Asian Development Bank, AIIB = Asian Infrastructure Investment Bank, NHA = National Highway Authority.  
Source: Asian Development Bank.

<sup>10</sup> ADB. 2015. *Enhancing Operational Efficiency of the Asian Development Bank*. Manila.

<sup>11</sup> Project Administration Manual (accessible from the list of linked documents in Appendix 2).

### III. DUE DILIGENCE

#### A. Technical

16. The engineering of the civil works for motorway M-4 is based on pertinent guidelines, standards, and specifications.<sup>12</sup> Project design elements mitigate expected climate risks, including storms, flooding, and high ambient temperature during summer.<sup>13</sup> A road safety audit of the design was conducted and a further safety audit will be carried out after completion of the civil works to ensure that the designed standards are fully realized and conform to best international practices. Road safety features such as motorway signage, emergency parking areas, acceleration and deceleration lanes, reflectorized lane markings, rumble strips, antiglare arrangements, and arrangements for driving in fog were incorporated in the design.<sup>14</sup>

17. The motorway M-4 envisages a toll collection system, an emergency call service for motorists, and a centralized operation center with closed-circuit TV system. Similar to other operational motorways, the NHA will outsource the toll collection operation and maintenance (O&M) to the private sector. The National Highways and Motorways Police, a specialized unit created for the federal road network, will enforce traffic and safety regulations and laws, including those applicable to vehicle overloading, speeding, and other violations. The creation of this unit has resulted in a significant reduction in the number of accidents on the motorways. Overall, the operation, management, and maintenance of motorways in Pakistan are deemed efficient and effective.

#### B. Economic and Financial

18. The economic evaluation of the project was carried out assuming the completion of the entire M-4 corridor and was undertaken in accordance with ADB's Guidelines for Economic Analysis of Projects.<sup>15</sup> The project has an economic internal rate of return of 13.6%, and a net present value of PRs4.87 billion at a 12.0% discount rate. The two calculated benefits are (i) vehicle operating costs (65.8% of total benefits), and (ii) time savings (34.2% of total benefits). The upgrading from an unsegregated two-lane road to a segregated four-lane road with restricted access ramps is likely to yield a considerable safety dividend. However, lack of sufficient data makes it impossible to estimate the road safety benefits. The estimated rate of return on the project is, therefore, considered conservative and the project is economically viable.

19. The Road Maintenance Fund—a pool of toll revenues, penalties, and other funds provided by the government and established in 2003 through road maintenance account rules—is earmarked to finance O&M of the entire national highway network. The project road will be tolled after opening to traffic. Over the project life span, the forecast toll revenue will be sufficient to cover O&M of the project road, contributing an additional 2.5% to the NHA's annual O&M

<sup>12</sup> By the American Association of State Highway and Transportation Officials and the Pakistan Code of Highway Bridges.

<sup>13</sup> The road embankment is sufficiently high (3–4 m on average, increasing to 5–6 m near underpasses and drainage structures, and 6–7 m near bridges) to withstand the sheet flows of the highest floods. The design provides adequate cross-drainage structures and hydraulic structures over perennial water channels as well as canals and rivers. The design of these structures took into account flood levels of 100-year recurrence interval. The impact of temperature on asphaltic pavement layers is mitigated by adopting pavement specifications suitable for the climate in the project area—mean maximum temperature of 41°C in summer and minimum temperature of 4°C in winter.

<sup>14</sup> Road signs and lane markings regulate traffic flow safely, while rumble strips and antiglare arrangements minimize accidents and road fatalities.

<sup>15</sup> ADB. 1997. *Guidelines for the Economic Analysis of Projects*. Manila.

budget. In line with the annual maintenance plan generated by the road asset management system, the motorway is a top priority for O&M fund allocation. Nevertheless, resources generated by the Road Maintenance Fund are chronically short (by about 40%–50%) of the unconstrained demand to maintain the roads at established quality levels.<sup>16</sup> Encouragingly, road maintenance account receipts have significantly increased. Moreover, the NHA committed to strengthen its financial performance on the national highway network by rationalizing its toll rates (the current tariff of about PRs1.24 per passenger car/km is considered one of the lowest globally), and expand and implement more viable toll-based projects. The strategic capacity development technical assistance for the transport sector in Pakistan<sup>17</sup> included the preparation of a detailed action plan for implementing the restructuring of the NHA's balance sheet.

### C. Governance

20. The proposed additional financing will not require changes in the financial management arrangements. Financial management functions under the proposed additional financing will remain the responsibility of the PIU, as under the current project. The NHA's capacity for procurement and financial management, and for implementing the project, was assessed and found to be sufficient to manage international procurement and to maintain the accounting systems, financial controls, and audit arrangements. Its financial accounting, auditing rules, and internal control systems follow generally accepted international practices. The NHA maintains separate project records and accounts adequate to identify the works, goods, and services financed from the loan proceeds, financing resources received, expenditures incurred for the project, and use of local funds, including adequate internal controls and financial reporting arrangements. The project accounts and related financial statements will be audited annually in accordance with national and international auditing standards by the auditor general of Pakistan and by a chartered accountant.

21. ADB's Anticorruption Policy (1998, as amended to date) was explained to and discussed with the government and the NHA. The specific policy requirements and supplementary measures are described in the PAM (footnote 11).

### D. Poverty and Social

22. The national poverty rate of 33% is marked by urban–rural disparity (18% urban and 46% rural poverty incidence), and 21% of the population lives below the extreme poverty line. Punjab province (where the project is situated) is among the least-poor provinces in Pakistan with a poverty incidence of 19%, an urban rate of 10%, and a rural rate of 28%. Within the province, however, poverty levels are uneven—the southern part has an above-average incidence compared with a relatively lower incidence observed in the northern districts. The project alignment passes through three districts of central Punjab—Toba Tek Singh, with a poverty headcount index of 10%; Jhang at 26%; and Khanewal at 28% (2012). The local

<sup>16</sup> The NHA is currently calculating the unconstrained road maintenance needs mainly based on the assumption of targeting average international roughness index indicators (e.g., 4 m/km) for its entire national highway network. Some of the national highways with high international roughness index indicators (about 10 m/km or above) are no longer maintainable. Those roads should be prioritized for capital investment projects rather than maintenance needs. Examples of such roads are in the recently approved ADB. 2016. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to the Islamic Republic of Pakistan for the Post-Flood National Highways Rehabilitation Project*. Manila. The NHA continues to tackle those roads with a high level of disrepair separately and, with the continuous growth of toll revenues, it is expected that the shortfall between the actual maintenance funds and the unconstrained needs will be much smaller by 2020.

<sup>17</sup> ADB. 2015. *Technical Assistance for Enabling Economic Corridors through Sustainable Transport Sector Development*. Manila.

population, transport operators, freight forwarders, and those trading in agricultural products will benefit directly from the project, as better connectivity through the M-4 will enable access to markets countrywide and, thus, lead to better socioeconomic networking and easier access to health, education, and social facilities.

23. The project design will boost the connectivity of inhabitants along both sides of the M-4 and improve road safety by inclusion of traffic signs, markings, fencing, underpasses, and controlled exit and entry traffic at interchanges. This will produce several other benefits such as lower transportation costs, shorter travel times, and shorter shipment times for edible and perishable agricultural products, all of which will ultimately contribute to sustainable economic growth. Diversion of freight and intercity traffic from existing highways to the project motorway will reduce congestion and aid traffic flow, and boost the safety of local communities in the area. During construction, the local population will benefit from short-duration jobs, and opportunities to sell food and goods to construction workers. The roadside rest areas with amenities for both genders will allow the local population to sell produce, food, and drinks to travelers.

24. During and after implementation, regionwide population movements across the project areas are expected and may increase the risk of human trafficking. Such risk will be mitigated by conducting awareness campaigns targeting workers and local populations during implementation. The contractor will be required to conduct these campaigns, under the oversight of the construction supervision consultant and the NHA, and such requirement will be included in the bid documents and contracts for civil works.

## **E. Safeguards**

25. **Environment.** Since the M-4 alignment passes through undisturbed agricultural land, and given the large scale of the operation, both the current project and the additional financing have been categorized A for environment. In 2007, as required by ADB's Environment Policy,<sup>18</sup> an environmental impact assessment (EIA) report was prepared and approved for the entire M-4. Subsequently, the EIA report was updated to meet the requirements of ADB's Safeguard Policy Statement (2009) and new national legal requirements, and disclosed on ADB's website in August 2015 at the time of processing of the current project. The EIA has been further updated in 2016 to incorporate additional environmental baseline information, environmental management costs, new public consultations, and other pertinent details and data for the Gojra–Khanewal section. This updated EIA has been approved by ADB and the Government of Pakistan and disclosed on ADB's website on 12 April 2016. The project design has factored in climate change risks and adaptation measures as well as community concerns.

26. The environmental impacts identified are largely concentrated in the construction phase. Soil erosion, dust, and noise impacts are likely to be significant. Noise impacts will persist into the operational phase. The environmental management plan (EMP) includes measures to minimize anticipated impacts during construction and operation. Prior to construction, contractors will update the EMP into a site-specific EMP. The site-specific EMP will be based on a risk assessment approach to select impact- and site-appropriate mitigation measures such as barriers for construction and operational noise. The construction supervision consultant, the Environment, Afforestation, Land, and Social Division of the NHA, and ADB will closely monitor the implementation of the site-specific EMP. The NHA will submit semiannual environmental monitoring reports to ADB for disclosure on the ADB website.

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<sup>18</sup> ADB. 2002. *Environment Policy of the Asian Development Bank*. Manila.

27. **Involuntary resettlement.** The additional financing is classified category A for involuntary resettlement since it involves the acquisition of 622.2 hectares of private land that will impact on 3,429 households (23,186 displaced people). Of these people, 2,754 will lose more than 10% of their productive land and 162 households with 1,302 members will be physically displaced. The NHA has prepared and submitted to ADB the final land acquisition and resettlement plan (LARP) based on the completed detailed design. An independent land valuation study has confirmed that compensation rates for affected land are reflective of full replacement cost. The LARP was disclosed on ADB's website on 20 January 2016. Public consultation and information disclosure were undertaken while preparing the LARP, including with displaced people and the communities along the project road. Consultation and information sharing will continue throughout project implementation.

28. Land acquisition and resettlement activities are progressing well with a target of completion by the third quarter of 2016. Resettlement is being managed and implemented by the NHA, through the PIU, and supported by the Environment, Afforestation, Land, and Social Division. The PIU has demonstrated capacity for implementing involuntary resettlement. A functioning grievance redress mechanism has been established. The social safeguard management consultant was mobilized on 15 February 2016 to assist the PIU in completing the compensation payments, information disclosure, consultation activities, grievance redress, and internal monitoring for both the Gojra–Shorkot section and Shorkot–Khanewal section. A qualified and experienced external monitoring agency is being recruited to verify the executing agency's monitoring reports, monitor LARP implementation, identify issues, and recommend corrective measures.

29. **Indigenous peoples.** The additional financing is classified category C since the project road is located in the settled areas of Punjab province, where no indigenous peoples, as defined under ADB's Safeguard Policy Statement, reside. No indigenous communities will be affected by the project and, accordingly, no indigenous peoples planning documents are required.

## F. Risks and Mitigating Measures

30. Major risks and mitigating measures are summarized in Table 4 and described in detail in the risk assessment and risk management plan.<sup>19</sup> The project procurement classification is category B. Overall, the risks are deemed manageable by adopting mitigating measures, and the integrated benefits and impacts are expected to outweigh the costs of mitigation.

**Table 4: Summary of Risks and Mitigating Measures**

Risks	Mitigating Measures
Weak financing arrangements on development and management of the road network	The practice of providing loans to the NHA to finance its development program since the creation of the NHA in 1991 undermines the authority's financial standing. The capacity development technical assistance approved in November 2015 (footnote 17) will help build capacity and carry out analytical work on NHA balance sheet restructuring, underpinned by ongoing ADB policy dialogue to prepare and implement the sector reform agenda. The government also intends to expand the toll base, rationalize tolls, and allocate more revenue to the road maintenance account of the NHA. <sup>a</sup>
Delayed land acquisition and resettlement, and inadequate safeguard	The NHA has started consultation, land acquisition, and resettlement compensation for the people affected by the additional financing. Progress to date has been satisfactory, and verified by its social safeguard management consultant.

<sup>19</sup> Risk Assessment and Risk Management Plan (accessible from the list of linked documents in Appendix 2).

Risks	Mitigating Measures
arrangements	<p>An independent land valuation study has been carried out to identify any price differential and ensure compensation at full replacement cost in accordance with the approved land acquisition and resettlement plan.</p> <p>A qualified and experienced external monitoring agency will verify the executing agency's monitoring reports, monitor land acquisition and resettlement plan implementation, identify issues, and recommend corrective measures as needed.</p> <p>The NHA assisted by the construction supervision consultant will supervise the implementation of the environmental management plan, monitor the implementation process, and regularly submit to ADB its safeguard monitoring reports.</p>
Cost overruns, e.g., because prices of commodities and raw materials rise more than budgeted	<p>Project cost estimates are based on completed detailed design and the most recent unit prices of similar civil works.</p> <p>Adequate contingencies are budgeted in the project investment to account for any unforeseen factors, and a technical auditor will be engaged to review design changes when necessary.</p>

ADB = Asian Development Bank, NHA = National Highway Authority.

<sup>a</sup> Tolls and other revenues amount to 90% of the NHA's maintenance expenditure; the balance comes from the government annual maintenance grant.

Source: Asian Development Bank.

#### IV. ASSURANCES

31. The government and the NHA have assured ADB that implementation of the 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 and the NHA have agreed with ADB on certain covenants for the project, which are set forth in the loan agreement and project agreement.

#### V. RECOMMENDATION

32. I am satisfied that the proposed loan would comply with the Articles of Agreement of the Asian Development Bank (ADB) and recommend that the Board approve the loan of \$100,000,000 to the Islamic Republic of Pakistan for the additional financing of the National Motorway M-4 Gojra–Shorkot–Khanewal Section Project, from ADB's ordinary capital resources, 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 5 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.

Takehiko Nakao  
President

19 May 2016



### DESIGN AND MONITORING FRAMEWORK

Impact the Project is Aligned With			
<b>Current project</b> Modernization of transport infrastructure and greater regional connectivity to support a vibrant and growing economy (Pakistan Vision 2025) <sup>a</sup>			
<b>Overall project</b> Unchanged			
Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting Mechanisms	Risk
<b>Outcome</b> <b>Current project</b> An efficient and safer transport corridor between Islamabad, Faisalabad, and Multan that enhances connectivity between the various parts of the country  <b>Overall project</b> Unchanged	By 2020  a. Average daily vehicle kilometers reach 1 million in the first full year of operation for M-4 Faisalabad–Multan (2015 baseline: 0)  b. Average travel time from Islamabad to Multan reduced to 6.5 hours, from 8.5 hours in 2015  c. Fatality rate per 100 million vehicle kilometers traveled maintained at no more than the national highway average (2015 baseline: estimated 14.4)	a–b. NHA annual traffic statistics and project performance monitoring system report  c. Pakistan Bureau of Statistics annual report, NHA annual traffic statistics and project performance monitoring system report	
<b>Outputs</b> <b>Output 1</b> <b>Current project</b> 1. 62 km of four-lane, access-controlled motorway connecting Gojra and Shorkot constructed and serviceable  <b>Overall project</b> 1. 126 km of four-lane, access-controlled motorway connecting Gojra, Shorkot, and Khanewal constructed and serviceable	1. 62 km road section constructed to 120 km/hour design standard by 2019  1. 126 km road section constructed to 120 km/hour design standard by 2019	1. Supervision consultant's project progress report and project completion report	Cost overruns, e.g., because prices of commodities and raw materials rise more than budgeted
<b>Output 2</b> <b>Current project</b> 2. Safeguard and contract administration capacity of the NHA strengthened	2a. Project environment and social safeguard requirements implemented with good quality 2b. Contract management	2a–2b. Supervision consultant's project progress report and project completion report	

<b>Results Chain</b>	<b>Performance Indicators with Targets and Baselines</b>	<b>Data Sources and Reporting Mechanisms</b>	<b>Risk</b>
<b>Overall project</b> 2. Unchanged	and execution carried out effectively without undue delay and unresolved disputes by 2019		
<b>Key Activities with Milestones</b>			
<b>1. 126 km of four-lane, access-controlled motorway connecting Gojra, Shorkot, and Khanewal constructed and serviceable</b>			
1.1 Mobilize construction supervision consultant by 25 February 2016 (changed, completed).			
1.2 Award civil works contract for Gojra–Shorkot section by 31 December 2015 (changed, completed).			
1.3 Award civil works contract for Shorkot–Khanewal section by 31 August 2016 (added).			
1.4 Complete civil works for Gojra–Shorkot section by 30 April 2019 (unchanged).			
1.5 Complete civil works for Shorkot–Khanewal section by 31 October 2019 (added).			
<b>2. Safeguard and contract administration capacity of the NHA strengthened</b>			
2.1 Mobilize social safeguard management consultant by 15 February 2016 (changed, completed).			
2.2 Establish a comprehensive project performance monitoring system by 31 October 2016 (changed).			
2.3 Hold three FIDIC contract management workshops for the NHA by 31 October 2019 (unchanged).			
<b>Inputs</b>			
<b>Asian Development Bank (ordinary capital resources loan)</b>			
\$178 million (current)			
\$100 million (additional)			
\$278 million (overall)			
<b>Government of the United Kingdom (grant)</b>			
\$92 million (current)			
\$34 million (additional)			
\$126 million (overall)			
<b>Asian Infrastructure Investment Bank (loan)</b>			
\$0 million (current)			
\$100 million (additional)			
\$100 million (overall)			
<b>Government of Pakistan</b>			
\$47 million (current)			
\$39 million (additional)			
\$86 million (overall)			
<b>Assumptions for Partner Financing</b>			
<b>Current project</b>			
Not applicable			
<b>Overall project</b>			
Not applicable			

FIDIC = International Federation of Consulting Engineers, km = kilometer, NHA = National Highway Authority.

<sup>a</sup> Government of Pakistan, Ministry of Planning, Development and Reforms. 2014. *Pakistan 2025: One Nation, One Vision*. Islamabad. [www.pc.gov.pk](http://www.pc.gov.pk). Vision 2025 was approved by the National Economic Council on 29 May 2014.

Source: Asian Development Bank.

**LIST OF LINKED DOCUMENTS**

<http://www.adb.org/Documents/RRPs/?id=48402-002-3>

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

**Supplementary Document**

15. Project Climate Risk Assessment and Management Report