



Report and Recommendation of the President to the Board of Directors

Project Number: 48402-001
September 2015

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

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Asian Development Bank

CURRENCY EQUIVALENTS

(as of 26 August 2015)

| | | |
|---------------|---|----------------------------|
| Currency unit | – | Pakistan rupee/s (PRe/PRs) |
| PRe1.00 | = | \$0.00959 |
| \$1.00 | = | PRs104.28 |
| \$1.00 | = | £0.63743 |

ABBREVIATIONS

| | | |
|-------|---|---|
| ADB | – | Asian Development Bank |
| CAREC | – | Central Asia Regional Economic Cooperation |
| EALS | – | Environment, Afforestation, Land, and Social (Division) |
| EIA | – | environmental impact assessment |
| EMP | – | environmental management plan |
| GDP | – | gross domestic product |
| km | – | kilometer |
| LARP | – | land acquisition and resettlement plan |
| m | – | meter |
| MFF | – | multitranches financing facility |
| NHA | – | National Highway Authority |
| O&M | – | operation and maintenance |
| OCR | – | ordinary capital resources |
| PAM | – | project administration manual |
| PIU | – | project implementation unit |
| SSEMP | – | site-specific environmental management plan |
| TA | – | technical assistance |

NOTE

In this report, “\$” refers to US dollars.

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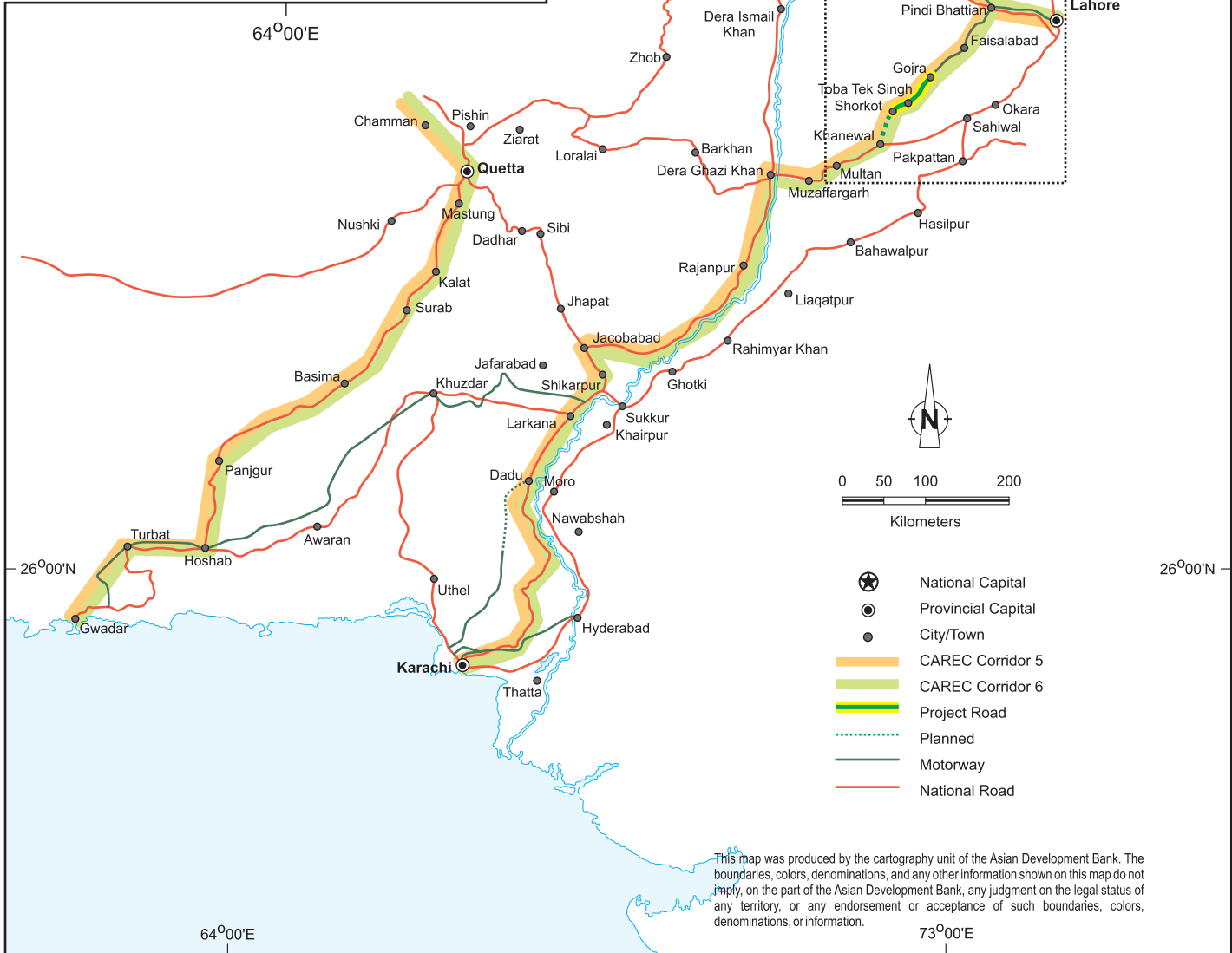
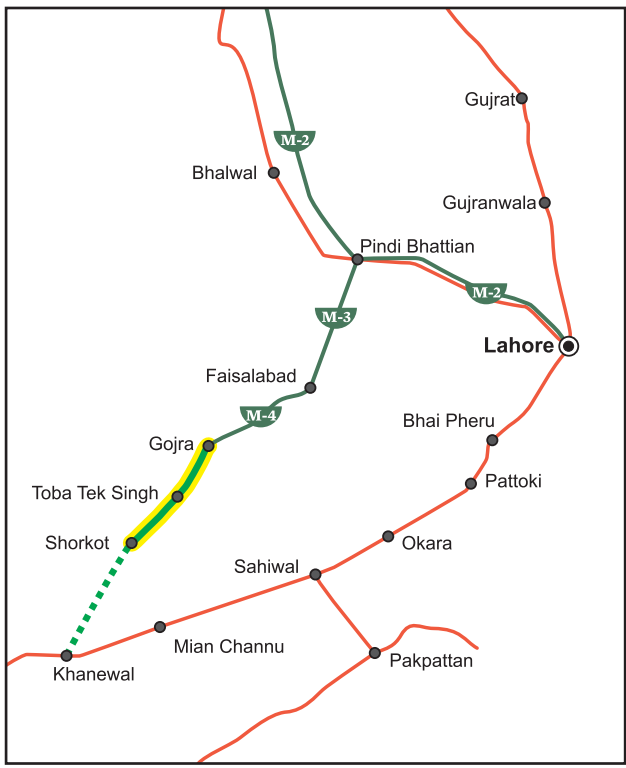
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PROJECT AT A GLANCE

| | | | |
|--|---|---|--|
| 1. Basic Data | | Project Number: 48402-001 | |
| Project Name | National Motorway M-4 Gojra–Shorkot Section Project | Department /Division | CWRD/CWTC |
| Country Borrower | Pakistan Pakistan | Executing Agency | National Highway Authority |
| 2. Sector | | ADB Financing (\$ million) | |
| ✓ Transport | Road transport (non-urban) | | 178.00 |
| | | Total | 178.00 |
| 3. Strategic Agenda | | Climate Change Information | |
| Subcomponents | Inclusive economic growth (IEG) Regional integration (RCI) | Pillar 1: Economic opportunities, including jobs, created and expanded Pillar 1: Cross-border infrastructure | Climate Change impact on the Project Medium |
| 4. Drivers of Change | | Gender Equity and Mainstreaming | |
| Components | Governance and capacity development (GCD) Partnerships (PAR) | Institutional development Bilateral institutions (not client government) Official cofinancing | No gender elements (NGE) ✓ |
| 5. Poverty Targeting | | Location Impact | |
| Project directly targets poverty | No | Regional | High |
| 6. Risk Categorization: | | Complex | |
| 7. Safeguard Categorization | | Environment: A Involuntary Resettlement: A Indigenous Peoples: C | |
| 8. Financing | | | |
| Modality and Sources | | Amount (\$ million) | |
| ADB | | 178.00 | |
| Sovereign Project loan: Ordinary capital resources | | 178.00 | |
| Cofinancing | | 92.00 | |
| Government of the United Kingdom | | 92.00 | |
| Counterpart | | 47.00 | |
| Government | | 47.00 | |
| Total | | 317.00 | |
| 9. Effective Development Cooperation | | | |
| Use of country procurement systems | | No | |
| Use of country public financial management systems | | Yes | |

PAKISTAN NATIONAL MOTORWAY M-4 GOJRA-SHORKOT SECTION PROJECT



This map was produced by the cartography unit of the Asian Development Bank. The boundaries, colors, denominations, and any other information shown on this map do not imply, on the part of the Asian Development Bank, any judgment on the legal status of any territory, or any endorsement or acceptance of such boundaries, colors, denominations, or information.

I. THE PROPOSAL

1. I submit for your approval the following report and recommendation on (i) a proposed loan, and (ii) the proposed administration of a grant to be provided by the Government of the United Kingdom, both to the Islamic Republic of Pakistan for the National Motorway M-4 Gojra–Shorkot Section Project.¹

2. The proposed project will construct a 62-kilometer (km) four-lane, access-controlled motorway connecting Gojra and Shorkot in Punjab Province, and improve the institutional capacity of the National Highway Authority (NHA), particularly for managing safeguards and contracts.² The project will facilitate north–south connectivity, improve quality and efficiency of road transport services, and promote inclusive economic growth.

II. THE PROJECT

A. Rationale

3. In Pakistan, the transport sector contributes about 10% to the gross domestic product (GDP). It is estimated that 2.3 million people (about 6% of the total employed labor force of Pakistan) earn their livelihoods from this sector. 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. Much of the country's 12,500 km national highway network was built before the 1950s. About 75% of it consists of two-lane undivided roads of 6–7 meters (m) in width. With a growing economy fueled mainly by growth in manufacturing and a relatively high population growth, traffic demand is on the rise. However, slow-moving trucks and nonmotorized traffic, poor road conditions, and frequent truck overloading are impeding the efficiency and safety of road transport. To reduce the traffic load on the heavily used national highways, the government began in the 1990s to build high-speed, fully access-controlled national motorways with four or more lanes. To date, around 900 km of the planned 2,800 km are operational.

4. Pakistan's domestic investment and trade flows concentrate on one major north–south transport corridor, which connects the key centers of economic activity. Comprising national highways and motorways with a total length of about 1,800 km, the corridor runs from the port city of Karachi in the south, passes through primary production and population centers such as Khanewal, Multan, Muzaffargarh, Lahore, Faisalabad, Islamabad, and Peshawar, before reaching Torkham, on the northern border with Afghanistan. The economy of the area served by the corridor accounts for 80%–85% of Pakistan's GDP. As a result of Pakistan's accession to the Central Asia Regional Economic Cooperation (CAREC) Program in 2010, this transport corridor now forms an integral part of the CAREC corridors 5 and 6, opening a vital trading link between landlocked Central Asian nations and the country's warm-water ports of Gwadar, Karachi, and Port Qasim on the Arabian Sea.

5. The 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

¹ The design and monitoring framework is in Appendix 1.

² The project is included in Asian Development Bank (ADB). 2014. *Country Operations Business Plan: Pakistan, 2015–2017*. Manila.

2014 under Asian Development Bank (ADB) financing,³ and the Khanewal–Multan section (57 km) will be completed in 2015 under financing from the Islamic Development Bank.

6. The proposed project will finance the construction of the 62 km Gojra–Shorkot section. Achievement of its full benefits will depend on the completion of the remaining 64 km Shorkot–Khanewal section, which is currently anticipated to be financed through additional financing of the project in 2016.⁴ Upon completion, the new M-4 will provide a four-lane, access-controlled alternative to the existing narrow and congested routes, notably in the heavily trafficked Faisalabad and Khanewal–Multan–Muzaffargarh areas.

7. The national highway N-5 is part of the north–south transport corridor, and Pakistan's longest and most important highway. Its section between Lahore and Multan is a four-lane road through highly urbanized areas carrying an average daily traffic volume of 20,000 vehicles. Currently, the majority of long-distance traffic from Karachi to Islamabad and onward leaves the N-5 after Multan to use the local road network before reaching the M-2. These two-lane roads are unsafe, having at-grade access points from local dwellings and businesses throughout. The completed M-4 will attract most of this long-distance traffic and also divert traffic from the N-5, which will help alleviate congestion on that road. Overall, the M-4 will provide an efficient international link between the north of Pakistan and beyond, and southern Punjab, Sindh, and the ports of Karachi and Gwadar in southern Pakistan.

8. ADB has been the lead agency for road sector development in Pakistan since 2005 and has coordinated its activities closely with other development partners, including the World Bank and the Japan International Cooperation Agency. The collaboration between the development partners was instrumental in transforming the NHA from a government administration to a service-oriented asset manager, equipped with an effective road asset management system. This is illustrated by the creation of two NHA divisions dedicated to managing the road assets and improving business processes—Environment, Afforestation, Land, and Social (EALS) Division; and Public–Private Partnership Division. As the NHA embarks on the next stage of road development under the government's Vision 2025, continued capacity building will be needed to improve transport efficiency and quality of service.

9. Vision 2025 envisages modernization of transport infrastructure and greater regional connectivity as one of the seven pillars to achieve its stated medium-term goals.⁵ The project is consistent with the strategic goals and government priorities. An enhanced north–south corridor will reduce the time and cost of moving goods and people along the entire logistic and supply chain, removing one of the key constraints to raising competitiveness, attracting private sector investment, increasing productivity, as well as deepening and diversifying the industrial base, all of which are essential for providing sustainable jobs to a growing population. The project is also consistent with ADB's country partnership strategy, 2015–2019 for Pakistan⁶ and fits with ADB's

³ This section was financed under tranche 1 of the multitranchise financing facility (MFF) for ADB. 2007. *Report and Recommendation of the President to the Board of Directors: Proposed Multitranchise Financing Facility to the Islamic Republic of Pakistan for the National Trade Corridor Highway Investment Program*. Manila (approved in December 2007 and to close in December 2017). Construction of subsequent sections, i.e., section 2 of Gojra–Shorkot (62 km) and section 3 of Shorkot–Khanewal (64 km), was originally part of tranche 1. However, at the request of the government in September 2008, these two sections were excluded and reserved for a later tranche under the MFF because of cost overruns and delays in land acquisition and resettlement compensation. In view of the required versus the available construction period before the MFF closing in 2017, sections 2 and 3 are now being prepared as standalone projects outside the MFF.

⁴ ADB. 2014. *Country Operations Business Plan: Pakistan, 2015–2017*. Manila.

⁵ Government of Pakistan, Ministry of Planning, Development & Reform. 2014. *Pakistan 2025 – One Nation. One Vision*. Islamabad. <http://pakistan2025.org>

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

Midterm Review of Strategy 2020,⁷ supports the CAREC Transport and Trade Facilitation Strategy 2020,⁸ and is included in ADB's country operations business plan, 2015–2017 for Pakistan (footnote 2).

10. The investment demand to bring Pakistan transport infrastructure on a sustained growth trajectory is huge. ADB is mobilizing additional resources to complement its own and, in June 2015, secured a grant contribution of £262 million over 2015–2020 from the Government of the United Kingdom to the development of the Pakistan Economic Corridors Program. The main focus of the program is to finance strategic sections of the CAREC corridors in Pakistan, which is fully aligned with Pakistan's Vision 2025, the CAREC Transport and Trade Facilitation Strategy 2020, and ADB's strategic objectives.

11. ADB's leading role in Pakistan's road sector development has yielded lessons: keep project designs simple; limit the number of components and implementing agencies to a manageable level; make sure that cost estimates are realistic and that sufficient counterpart funds are made available; and adopt realistic timeframes for land acquisition and resettlement of affected people. These lessons are adequately incorporated in the design of this project.

B. Impact and Outcome

12. The impact will be the modernization of transportation infrastructure and greater regional connectivity to support a vibrant and growing economy, as highlighted in 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

13. The project outputs will be: (i) 62 km of four-lane, access-controlled motorway connecting Gojra and Shorkot constructed and operational, and (ii) the safeguard and contract administration capacity of the NHA strengthened.

14. **Motorway construction.** The proposed Gojra–Shorkot section of motorway M-4 is a four-lane access-controlled road facility with shoulders of 3.65 m. The design speed is 120 km per hour, the maximum grade is 4%. The scope of construction work includes earthwork, asphalt concrete pavement, bridges, crossing structures (underpasses and pipe culverts), interchanges, weigh bridges, toll plaza and rest areas, and roadside improvements and safety engineering features such as traffic signs, road markings, traffic barriers, guardrails, and road lighting.

15. **Institutional capacity improvement.** The project will improve the NHA's institutional capacity, particularly for managing safeguards and contracts, through workshops and hands-on training provided by the social safeguard management consultant and the contract specialist under the construction supervision firm. Separately, ADB will process large-scale capacity development technical assistance (TA) for the Pakistan transport sector in 2016. The capacity development TA of about \$15 million equivalent, to be funded by the Government of the United Kingdom and administered by ADB, will focus on (i) developing a national transport sector policy; (ii) scaling up the national road asset management system, including support to the NHA to improve Pakistan's highway operation and maintenance (O&M) arrangements; (iii) advancing the national road safety program; and (iv) strengthening transport facilitation.

⁷ ADB. 2014. *Midterm Review of Strategy 2020: Meeting the Challenges of a Transforming Asia and Pacific*. Manila.

⁸ ADB. 2014. *CAREC Transport and Trade Facilitation Strategy 2020*. Manila.

D. Investment and Financing Plans

16. The project is estimated to cost \$317 million (Table 1).

Table 1: Project Investment Plan
(\$ million)

| | Item | Amount ^a |
|-----------|--|---------------------|
| A. | Base Cost^b | |
| | 1. M-4 Gojra–Shorkot road | 241.6 |
| | 2. Institutional strengthening | 6.7 |
| | Subtotal (A) | 248.3 |
| B. | Contingencies^c | 59.7 |
| C. | Financing Charges during Implementation^d | 9.0 |
| | Total (A+B+C) | 317.0 |

^a Includes taxes and duties of \$15 million to be financed from government resources.

^b In May 2015 prices.

^c Physical contingencies computed at 5% for civil works and consulting services. Price contingencies computed at 0.3%–1.5% on foreign exchange costs and 5.0%–6.0% on local currency costs; includes provision for potential exchange rate fluctuation under the assumption of a purchasing power parity exchange rate.

^d Includes interest and commitment charges. Interest during construction for the Asian Development Bank (ADB) loan has been computed at the 5-year forward London interbank offered rate plus a spread of 0.5%. Commitment charges for an ADB loan are 0.15% per year to be charged on the undisbursed loan amount.

Sources: National Highway Authority and Asian Development Bank estimates.

17. The government has requested (i) a loan of \$178 million from ADB's ordinary capital resources (OCR), and (ii) a grant of £58.85 million from the Government of the United Kingdom to help finance the project. The loan will have a 25-year term, including a grace period of 5 years, 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. The grant, fully administered by ADB, will finance the civil works for the project.

18. The financing plan is in Table 2. The government portion will finance land acquisition and resettlement, taxes and duties, and part of the contingencies.

Table 2: Financing Plan

| Source | Amount (\$ million) | Share of Total (%) |
|---|---------------------|--------------------|
| Asian Development Bank | | |
| Ordinary capital resources | 178.0 | 56.2 |
| Government of the United Kingdom (grant) ^a | 92.0 | 29.0 |
| Government of Pakistan | 47.0 | 14.8 |
| Total | 317.0 | 100.0 |

^a Administered by the Asian Development Bank. Amount includes bank charges.

Source: Asian Development Bank estimates.

19. ADB's financial assistance to Pakistan is limited in size relative to the country's infrastructure financing needs. At the same time, considerable potential exists to attract some of the liquidity currently available in the domestic and regional financial markets to infrastructure to complement and leverage ADB's own lending. To this end, the government has agreed that it will use best efforts to substitute approximately \$100 million of the principal amount of ADB's OCR loan with an equivalent amount of commercial cofinancing in Pakistan rupees, on terms and conditions acceptable to ADB, by no later than 6 months after the effective date of the OCR

loan agreement. If such commercial cofinancing is realized, the ADB Board of Directors' approval for such an arrangement will be separately requested.

E. Implementation Arrangements

20. The NHA will be the executing agency. The project implementation unit (PIU) under the NHA—which implemented the M-4 Faisalabad–Gojra section and has suitably qualified staff, including project directors, engineers, and financial and safeguard specialists—will be responsible for day-to-day management of the project. A general manager heads the PIU.

21. All procurement financed under the ADB loan will follow international competitive bidding procedures pursuant to ADB's Procurement Guidelines (2015, as amended from time to time) and ADB's prior review. A consulting firm—Renardet S.A. Ingénieurs Conseils—was recruited in 2010 through quality- and cost-based selection to provide design review and construction supervision services for the motorway M-4 (Faisalabad–Khanewal) project (footnote 3). Given that supervision for the project road is part of the original service scope and the consultant's overall performance is satisfactory, the NHA asked to continue the services of the consulting firm for the project. Engagement of the firm on a single-source basis will be carried out in accordance with ADB's Guidelines on the Use of Consultants (2013, as amended from time to time).

22. Advance actions in line with ADB's procurement and consulting guidelines have been taken to avoid initial implementation delays. The implementation arrangements are summarized in Table 3 and described in detail in the project administration manual (PAM).⁹

Table 3: Implementation Arrangements

| Aspects | Arrangements | | |
|--|---|---------------------------------|-----------------|
| Implementation period | November 2015–November 2019 | | |
| Estimated completion date | 30 November 2019 | | |
| Loan closing date | 31 May 2020 | | |
| Management | | | |
| (i) Oversight body | Steering committee, NHA | | |
| (ii) Executing agency | NHA | | |
| (iii) Implementation unit | Project Implementation Unit, NHA, Faisalabad | | |
| Procurement | ICB | Up to 2 contracts (civil works) | \$229.6 million |
| Consulting services | SSS | 699 person-months | \$6.7 million |
| Retroactive financing and/or advance contracting | ADB approved advance contracting on 19 January 2015. Retroactive financing is allowed for expenditure incurred up to 12 months prior to the date of signing of the ADB loan and the Government of the United Kingdom grant agreements, 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 upon between the government and ADB. | | |

ADB = Asian Development Bank, ICB = international competitive bidding, NHA = National Highway Authority, SSS = single-source selection.

Source: Asian Development Bank.

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

III. DUE DILIGENCE

A. Technical

23. The engineering of the civil works for motorway M-4 is based on pertinent guidelines, standards, and specifications.¹⁰ Notable safety design features include motorway signage, emergency parking areas, reflectorized lane markings, rumble strips, antiglare arrangements, and arrangements for driving in fog.¹¹ A comprehensive safety audit of the design was conducted during the design review. 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. The M-4 envisages a toll collection system, an emergency call service for motorists, and a centralized operation center with close-circuit TV system. Similar to other operational motorways, the NHA will outsource the toll collection operations and maintenance to the private sector. The National Highways & Motorways Police will enforce traffic and safety regulations and laws, including those applicable to vehicle overloading, speeding, and other violations. Overall, the operation, management, and maintenance of motorways in Pakistan are deemed efficient and effective.

24. The engineering phase also included climate adaptation measures to manage potential environmental impacts, such as from storms and floodwater, and high ambient temperature during summer. 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 the flood levels of the past 100 years. 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.

B. Economic and Financial

25. The economic evaluation of the project was carried out for the completion of the M-4 corridor and was undertaken in accordance with ADB's Guidelines for Economic Analysis of Projects.¹² The project has an economic internal rate of return of 13.2%, and a net present value of PRs3,754 million at a 12% 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). Lack of sufficient data makes it impossible to estimate the road safety benefits. However, the move from an unsegregated two-lane road to a segregated four-lane road with restricted access ramps is likely to yield a considerable safety dividend. The estimated rate of return on the project is therefore considered conservative and the project is economically viable.

26. 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% to the NHA's annual O&M budget. 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. In line with the annual maintenance plan generated by the road asset

¹⁰ By the American Association of State Highway and Transportation Officials and the Pakistan Code of Highway Bridges.

¹¹ Road signs and lane markings regulate traffic flow safely, while rumble strips and antiglare arrangements minimize accidents and road fatalities.

¹² ADB. 1997. *Guidelines for the Economic Analysis of Projects*. Manila.

management system, the motorway is a top priority in O&M fund allocation. Nevertheless, the NHA needs 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 TA will include the preparation of a detailed action plan for implementing the restructuring of the NHA's balance sheet.

C. Governance

27. 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.

28. 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 9).

D. Poverty and Social

29. Pakistan's per capita GDP is \$1,296.3 and grew by 4.0% in 2014.¹³ The national poverty rate is 33%, marked by urban–rural disparity (18% urban and 46% rural poverty incidence), while 21% of the population is below the extreme poverty line. The Punjab (where the project is situated) is among the least-poor provinces in Pakistan with a poverty incidence of only 19% (national level: 21%). 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 two districts of central Punjab, i.e., Toba Tek Singh, with a poverty headcount index of 10%, and Jhang at 26% (2012). The main direct beneficiaries of the project will be the local population, transport operators, freight forwarders, and those trading in agricultural products, as better connectivity through M-4 will enable access to markets countrywide and thus lead to better socioeconomic networking and easier access to health, education, and social facilities.

30. The project design includes traffic signs, markings, fencing, underpasses, and controlled exit–entry traffic at interchanges, which will boost the connectivity of inhabitants along both sides of the M-4 while improving road safety. It 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 national 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-time 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.

¹³ Country Economic Indicators (accessible from the list of linked documents in Appendix 2).

31. The prevalence rate of HIV/AIDS in the country is 0.10% (2011) and considered relatively low. However, the risk of HIV/AIDS and other sexually transmitted infections is always a concern because the main reasons for their prevalence are sexual transmissions and unsafe injections, practices that are not sufficiently discussed and regulated, particularly not in rural areas.¹⁴ Further, during and after implementation, region-wide population movements across the project areas are expected and may increase the risk of human trafficking. Such risks 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

32. **Environment.** Since the M-4 alignment passes through undisturbed agricultural land and given the large scale of the operation, the project has been categorized A for environment. In 2007, as required by ADB's Environment Policy (2002), 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 July 2014. The revised EIA incorporates environmental management costs, new public consultations, and also includes an assessment of the cumulative impacts of the complete M-4 motorway project. This updated EIA was posted on ADB's website in August 2015. The project design has factored in climate change risks and mitigation measures as well as community concerns.

33. 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 environmental management plan (SSEMP). The SSEMP 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 EALS Division of the NHA, and ADB will closely monitor the implementation of the SSEMP. The NHA will submit semiannual environmental monitoring reports to ADB for disclosure on the ADB website.

34. The EALS Division is headed by a general manager and supported by the director (environment) who is in charge of EMP implementation. Three environmental deputy directors are each responsible for different projects. The deputy director for this project will make sure that the provisions of the SSEMP are implemented. Capacity building at the EALS environment subdivision, and of the contractors and supervision consultants will also be conducted by ADB's Central and West Asia Department, through its ongoing TA for Sustainable Environmental Management of Projects in Central and West Asia.¹⁵

35. **Involuntary resettlement.** The project is classified as category A since it will affect 36 villages and 3,674 households by displacing 26,762 people. Of these, 213 people in 29 households will either be physically displaced or lose 10% or more of productive assets. Land acquisition and resettlement activities have been substantially completed. The NHA has prepared and submitted to ADB the final land acquisition and resettlement plan (LARP) based

¹⁴ Government of Pakistan, Ministry of Inter-Provincial Coordination. 2012. *Country Progress Report Pakistan – Global AIDS Response Progress Report 2012*. Islamabad.

¹⁵ ADB. 2014. *Technical Assistance for Sustainable Environmental Management of Projects in Central and West Asia*. Manila (TA 8663-REG).

on the detailed design and an external land valuation study. The LARP was disclosed on ADB's website on 15 July 2015. Public consultation and information disclosure were undertaken while preparing the LARP, including displaced people and the communities along the project road. Consultation and information sharing will continue throughout project implementation.

36. Resettlement activities will be managed and implemented by the NHA, through PIU, and supported by the EALS Division and the social safeguard management consultant. The PIU has demonstrated capacity for implementing involuntary resettlement. A functioning grievance redress mechanism has been established. Internal monitoring reports will be prepared by the PIU and social safeguard management consultant, and included in the quarterly progress reports of the supervision consultant. A qualified and experienced external monitoring agency will verify the executing agency's monitoring reports, monitor LARP implementation, identify issues, and recommend corrective measures.

37. **Indigenous peoples.** The project is classified as 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

38. Major risks and mitigating measures are summarized in Table 4 and described in detail in the risk assessment and risk management plan.¹⁶ 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 financial management arrangements for road sector maintenance | The NHA has requested the government to equitize the debt and clean its balance sheet, and will (i) expand the toll base, rationalize tolls, and allocate the revenue to the road maintenance fund; and (ii) expand PPP-based road construction to reduce the government subsidy. ^a Capacity development technical assistance will help build capacity and carry out analytical work, underpinned by ongoing ADB policy dialogue to prepare and implement the sector reform agenda. |
| Delayed land acquisition and resettlement, and inadequate safeguard arrangements | The NHA has largely completed land acquisition and resettlement for the project. 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. The external monitoring agency for land acquisition and resettlement has started its independent evaluation; and the social safeguard management consultant has been recruited and will mobilize once the civil works commence. During construction, the NHA and the construction supervision consultant will implement the environmental management plan, monitor the implementation process, and regularly submit to ADB their safeguard monitoring reports. |
| Cost overruns, e.g., because prices of commodities and raw materials rise more than budgeted | Project cost estimates are based on completed detailed design and the most recent unit prices of similar civil works. 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. |
| Late completion of the remaining M-4 | Detailed design of the remaining Shorkot–Khanewal section completed; the NHA has started land acquisition and resettlement for the section as well as advance |

¹⁶ Risk Assessment and Risk Management Plan (accessible from the list of linked documents in Appendix 2).

| Risks | Mitigating Measures |
|--------------------------|--|
| Shorkot–Khanewal section | procurement preparation. The government included ADB financing for the Shorkot–Khanewal section in the country operations business plan, 2015–2017. |

ADB = Asian Development Bank, NHA = National Highway Authority, PPP = public–private partnership.

^a Tolls and other revenues amount to 20% of the NHA's road construction and maintenance expenditure. The rest is mainly financed from loans borrowed by the government on behalf of the NHA, which are accounted as debts owed to the federal government in the NHA's balance sheet.

Source: Asian Development Bank.

IV. ASSURANCES

39. 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

40. 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

- (i) the loan of \$178,000,000 to the Islamic Republic of Pakistan for the National Motorway M-4 Gojra–Shorkot 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; and
- (ii) the administration by ADB of the grant of £58,850,000 to the Islamic Republic of Pakistan for the National Motorway M-4 Gojra–Shorkot Section Project, to be provided by the Government of the United Kingdom.

Takehiko Nakao
President

8 September 2015

DESIGN AND MONITORING FRAMEWORK

| Impact the project is aligned with. Modernization of transport infrastructure and greater regional connectivity to support a vibrant and growing economy (Pakistan Vision 2025) ^a | | | |
|---|--|--|---|
| Results Chain | Performance Indicators with Targets and Baselines | Data Sources and Reporting Mechanisms | Risks |
| <p>Outcome</p> <p>An efficient and safer transport corridor between Islamabad, Faisalabad, and Multan that enhances connectivity between the various parts of the country</p> | <p>By 2020</p> <p>a. Average daily vehicle kilometers reach 1,000,000 in the first full year of operation for M-4 Faisalabad–Multan (2015 baseline: 0)</p> <p>b. Average travel time from Islamabad to Multan reduced to 6.5 hours, from 8 hours in 2015</p> <p>c. Fatality rate per 100 million vehicle kilometers traveled maintained at no more than the national highway average (2015 baseline: estimated 14.4)</p> | <p>a–b. NHA annual traffic statistics and project performance monitoring system report</p> <p>c. Pakistan Bureau of Statistics annual report, NHA annual traffic statistics and project performance monitoring system report</p> | <p>Delayed completion of remaining M-4 Shorkot–Khanewal section</p> |
| <p>Outputs</p> <p>1. 62 km of four-lane, access-controlled motorway connecting Gojra and Shorkot constructed and operational</p> <p>2. Safeguard and contract administration capacity of the NHA strengthened</p> | <p>By 2019</p> <p>1a. 62 km road section constructed to 120 km/hour design standard by 2019</p> <p>2a. Project environment and social safeguard requirements implemented with good quality</p> <p>2b. Contract management and execution carried out effectively without undue delay and unresolved disputes by 2019</p> | <p>1a. Supervision consultant's project progress report and project completion report</p> <p>2a–2b. Supervision consultant's project progress report and project completion report</p> | <p>Cost overruns, e.g., because prices of commodities and raw materials rise more than budgeted</p> |
| <p>Key Activities with Milestones</p> <p>1. 62 km of four-lane, access-controlled motorway connecting Gojra and Shorkot constructed and operational</p> <p>1.1 Mobilize construction supervision consultant by 30 November 2015.</p> <p>1.2 Award civil works contract by 30 November 2015.</p> <p>1.3 Complete civil works by 30 April 2019.</p> <p>2. Safeguard and contract administration capacity of the NHA strengthened</p> <p>2.1 Mobilize social safeguard management consultant by 31 October 2015.</p> <p>2.2 Establish a comprehensive project performance monitoring system by 30 April 2016.</p> <p>2.3 Hold three FIDIC contract management workshops for the NHA by 31 October 2019.</p> | | | |

| |
|--|
| Key Activities with Milestones |
| Inputs Asian Development Bank: \$178 million (ordinary capital resources loan) Government of the United Kingdom: £58.85 million (grant) Government of Pakistan: \$47 million |
| Assumptions for Partner Financing Not applicable |

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

^a Government of Pakistan, Planning Commission. 2014. *Pakistan 2025: One Nation, One Vision*. Islamabad. www.pc.gov.pk. The 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=48402-001-3>

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