



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

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Project Number: 46377-002  
September 2015

## Proposed Loan Islamic Republic of Pakistan: Sindh Provincial Road Improvement Project

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Asian Development Bank

## CURRENCY EQUIVALENTS

(as of 14 August 2015)

Currency unit	–	Pakistan rupee/s (PRe/PRs)
PRe1.00	=	\$0.00981
\$1.00	=	PRs101.91

## ABBREVIATIONS

ADB	–	Asian Development Bank
EMP	–	environmental management plan
km	–	kilometer
m	–	meter
PAM	–	project administration manual
PMU	–	project management unit
PPP	–	public–private partnership
ROW	–	right of way
WSD	–	Works & Services Department

## NOTES

- (i) The fiscal year (FY) of the Government of Pakistan ends on 30 June. “FY” before a calendar year denotes the year in which the fiscal year ends, e.g., FY2015 ends on 30 June 2015.
- (ii) In this report, “\$” refers to US dollars.

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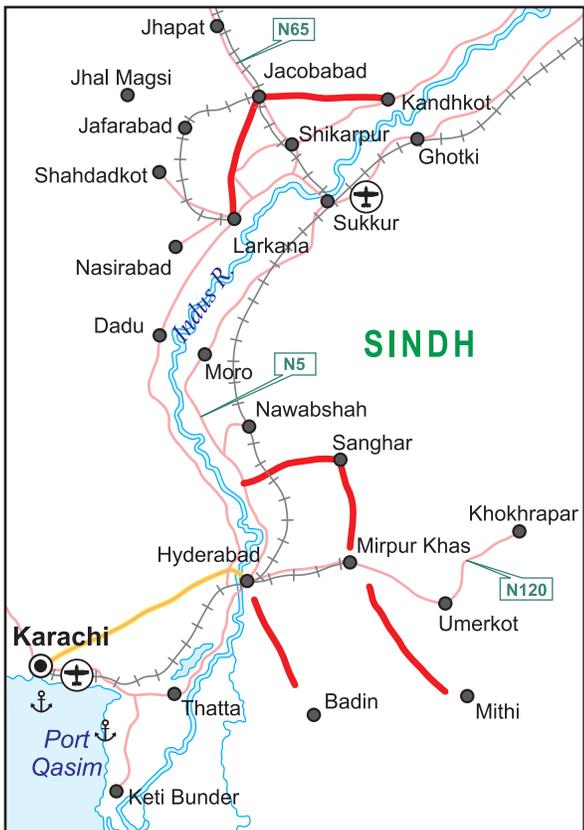
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## CONTENTS

	<b>Page</b>
PROJECT AT A GLANCE	
MAP	
I. THE PROPOSAL	1
II. THE PROJECT	1
A. Rationale	1
B. Impact and Outcome	4
C. Outputs	4
D. Investment and Financing Plans	4
E. Implementation Arrangements	5
III. DUE DILIGENCE	6
A. Technical	6
B. Economic and Financial	7
C. Governance	7
D. Poverty and Social	7
E. Safeguards	8
F. Risks and Mitigating Measures	10
IV. ASSURANCES	10
V. RECOMMENDATION	10
APPENDIXES	
1. Design and Monitoring Framework	11
2. List of Linked Documents	12

## PROJECT AT A GLANCE

<b>1. Basic Data</b>		<b>Project Number: 46377-002</b>	
<b>Project Name</b>	Sindh Provincial Road Improvement Project	<b>Department /Division</b>	CWRD/CWTC
<b>Country</b>	Pakistan	<b>Executing Agency</b>	Planning & Development Department, Sindh
<b>Borrower</b>	Pakistan		
<b>2. Sector</b>	<b>Subsector(s)</b>	<b>ADB Financing (\$ million)</b>	
✓ <b>Transport</b>	Road transport (non-urban)		197.85
		<b>Total</b>	<b>197.85</b>
<b>3. Strategic Agenda</b>	<b>Subcomponents</b>	<b>Climate Change Information</b>	
Inclusive economic growth (IEG)	Pillar 2: Access to economic opportunities, including jobs, made more inclusive	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 Public financial governance	No gender elements (NGE)	✓
<b>5. Poverty Targeting</b>		<b>Location Impact</b>	
Project directly targets poverty	No	Rural	High
		Urban	Medium
		Regional	Medium
<b>6. Risk Categorization:</b>	Low		
<b>7. Safeguard Categorization</b>	<b>Environment: B</b>	<b>Involuntary Resettlement: B</b>	<b>Indigenous Peoples: C</b>
<b>8. Financing</b>			
<b>Modality and Sources</b>		<b>Amount (\$ million)</b>	
<b>ADB</b>		<b>197.85</b>	
Sovereign Project loan: Ordinary capital resources		197.85	
<b>Cofinancing</b>		<b>0.00</b>	
None		0.00	
<b>Counterpart</b>		<b>29.66</b>	
Government		29.66	
<b>Total</b>		<b>227.51</b>	
<b>9. Effective Development Cooperation</b>			
Use of country procurement systems		No	
Use of country public financial management systems		Yes	



# PAKISTAN SINDH PROVINCIAL ROAD IMPROVEMENT PROJECT



- Project Roads
- ★ National Capital
- ★ Provincial Capital
- City/Town
- ✈ Airport
- ⚓ Port
- Motorway
- National Highway
- + + + + Railway
- River

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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 Sindh Provincial Road Improvement Project.<sup>1</sup>
2. The proposed project will rehabilitate six provincial highways with total length of 328 kilometers (km) in Sindh Province, and strengthen the institutional capacity of the provincial Works & Services Department (WSD) of Sindh in road planning, maintenance, and road safety.

## II. THE PROJECT

### A. Rationale

3. Sindh has 23% of Pakistan's population and 18% of its land area, and generates about 33% of gross domestic product. Sindh is the second-most populated province in Pakistan with 42 million people (including 16 million in metropolitan Karachi) and is the third-largest geographically with an area of 140,914 square kilometers. More than 60% of Sindh's population lives in rural areas, where agriculture is the main source of livelihood.
4. Because of the province's coastal access, Sindh has a highly diversified economy. Heavy industry and finance are centered in and around Karachi, while a substantial agricultural base can be found along the Indus River. The most important crops are cotton, rice, wheat, sugarcane, bananas, and mangoes. Sindh is also rich in natural resources (gas, petroleum, and coal), as well as renewable energy (wind and solar). Despite its economic, geographic, and resource advantages, recent growth and social development trends indicate that Sindh is not realizing its full potential. Economic growth from 2005 to 2015 has been erratic with a trend of declining, while real incomes have steadily fallen since 2006. This deterioration has been caused by several structural constraints, including (i) a stark urban–rural bifurcation of the province, which limits economic and social cohesion; (ii) poor infrastructure provision, especially insufficient and unreliable road connectivity (exacerbated by massive floods in 2010 and 2011); (iii) increasing skills, factors, and input constraints impeded growth of production and incomes; and (iv) poor governance and internal security challenges.
5. Sindh's economic development is also unbalanced geographically. Karachi, the provincial capital and Pakistan's largest city, accounts for about 20% of the country's gross domestic product, 75% of national trade, and more than 30% of value added in large-scale manufacturing. Rural Sindh, especially the poorly connected southeast part of the province, lags in both economic and social development with a poverty headcount double that of urban areas. Almost half (46%) of the rural population lives below the poverty line and have low per capita incomes and calorie intake. The province's rural poor also suffer from high unemployment; inadequate access to education, sanitation, and health facilities; an unhygienic environment; and insecure access to natural resources.<sup>2</sup> Lack of reliable, all-weather roads has contributed significantly to economic and social deprivation in rural areas.
6. Roads are the predominant mode of transport in Pakistan, carrying 91% of passenger traffic in terms of passenger-kilometers and 96% of freight traffic in ton-kilometers.<sup>3</sup> Transport in

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

<sup>2</sup> Sustainable Development Policy Institute. 2012. *Clustered Deprivation: District Profile of Poverty in Pakistan*. Islamabad.

<sup>3</sup> Government of Pakistan, Ministry of Finance. 2014. *Pakistan Economic Survey 2013–2014*. Islamabad. The modal share for passenger-kilometers was 90.9% for roads, 5.3% for railways, and 3.8% for aviation. The modal share for freight ton-kilometer was 98.8% for roads, 0.3% for railways, and 0.9% for aviation.

Sindh follows a similar modal pattern. The classified paved road network of 25,737 km in Sindh includes 1,365 km of national highways, 2,830 km of provincial highways, 11,630 km of secondary roads, and 9,912 km of improved access roads. In addition, the province has 22,000–54,000 km of unclassified roads, streets, and tracks.<sup>4</sup> Much of the road network is spread densely along the banks of the Indus River and its major irrigation and drainage canals. Rural road connectivity is poor in the southeastern districts of the province and along the coast. The extensive arid and desert regions in the west and east of the province have few all-weather engineered roads. The WSD is responsible for the 14,460 km of provincial highways and secondary roads, while the local district governments are responsible for all local and access roads. The National Highway Authority manages national highways and motorways.

7. Sindh's provincial highways, which handle traffic with a range of 3,000–8,000 vehicles daily, connect provincial administrative and commercial centers with district headquarters and market towns. They are vital in facilitating intra-provincial trade and commerce; providing access to health, education, and other public services; and reducing poverty by creating jobs and business opportunities. However, the condition of the provincial highway system is below national standard, and the pavement surface conditions and riding quality are deteriorating. Many of these roads have been upgraded from rural roads or tracks with low bearing capacity to sustain heavier traffic loads and resist damage from storm surges and flooding. Most provincial highways have substandard geometric standards. For example, pavement widths vary from 5 meters (m) to 7 m (without hard shoulders) compared with a national standard 7.30 m width (i.e., two 3.65 m lanes) with 1.50 m hard shoulders. The pavement condition of more than half of the road network is rated *poor* or *bad*. Inadequate expenditure on road maintenance and an inability to properly prioritize expenditures have accelerated road deterioration, resulting in an increase in traffic accidents, vehicle operating costs, and travel times.

8. The Asian Development Bank (ADB) has provided \$3.37 billion in assistance to Pakistan's transport sector, including loans to the Sindh provincial government to improve secondary roads and rural roads.<sup>5</sup> In addition, ADB loans to the federal government for national highways have included some sections in Sindh. However, the provincial highways, which account for more than 30% of the traffic on the provincial road network and are a vital link between national highways and rural access roads, have received marginal attention—despite government efforts, such as mobilizing resources through public–private partnership (PPP) and bilateral financing. Road rehabilitation and maintenance needs exceed the anticipated funding from these sources as well as the provincial budget. Through this project, ADB will provide critical support for Sindh's high-priority road rehabilitation and maintenance program, including policy and institutional assistance to sustainably maintain and preserve the provincial highways. ADB's assistance is in line with the government's plan to upgrade the quality of the road network, and is consistent with the strategic objectives in ADB's country partnership strategy, 2015–2019<sup>6</sup> regarding development of provincial highways in Pakistan. The project is included in ADB's country operations business plan, 2015–2017.<sup>7</sup>

9. **Road master plan.** Sindh needs to renew its road master plan, which was approved in 1995 and has not been updated. Although the government has invested more than PRs100 billion in road maintenance programs from 2005 to 2015, some investments may have fallen short of achieving the expected outcomes because of changes in the structure and

<sup>4</sup> In addition to the classified paved road system, these may include canal roads, urban roads and streets, and unimproved rural roads and tracks.

<sup>5</sup> ADB. 2015. Asian Development Bank and Pakistan: Fact Sheet. [www.adb.org](http://www.adb.org)

<sup>6</sup> ADB. 2015. *Country Partnership Strategy: Pakistan, 2015–2019*. Manila.

<sup>7</sup> ADB. 2014. *Country Operations Business Plan: Pakistan, 2015–2017*. Manila.

composition of the Sindh economy. For example, some regional economic hubs developed after 2010 need to be connected with high-quality road links. The project will support the government in preparing the Sindh road master plan by assessing (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.

10. The master plan will identify the physical gaps and capacity constraints in Sindh's road network relative to current and future traffic demand, as well as the system improvements needed to satisfy the mobility and logistics requirements of a modern economy. The master plan will incorporate a comprehensive medium-term road development and maintenance program with a phased plan of road investments over a 10-year period. Feasibility studies for the high-priority road investments will also be included in this assignment. The master plan will identify policies and complementary investments to support multimodal transport services and intermodal connectivity. While the master plan will focus on physical planning, investment policies, and modalities, it will also address the institutional, financing, regulatory, and pricing and/or cost-recovery aspects, as well as traffic accidents, congestion, and environmental and social impacts. Moreover, the master plan will include roads and streets in metropolitan and urban areas of Sindh. It will develop a geographic information system-based spatial and condition inventory of all roads to provide the baseline information and data for a road asset management system.

11. **Sustainable road maintenance.** Annual budget allocations for road maintenance and preservation have been insufficient to operate and maintain the road system at an acceptable service level. Road sector allocations received by the WSD have averaged about 2.0%–2.5% of Sindh's annual budget; more than 50% of this allocation is spent on new road and bridge construction, and upgrading works. The expenditure on road maintenance has averaged less than 1% of Sindh's annual budget. Moreover, the scarce maintenance funds are not spent in a cost-effective way. Road sections are subjectively selected for maintenance based on a "worst first" approach. Ad hoc treatments are then applied based on the experience of the responsible engineer. The institutional strengthening component of the project will support the development and operation of a modern road asset management system—based on an existing one financed by ADB<sup>8</sup>—to optimize the use of maintenance funds. The government has agreed to dedicate funds in the annual budget for upgrading, data collection, and operation of the road asset management system. Sindh also intends to increase 50% of the annual road maintenance budget allocation by 2020, compared with the annual road maintenance budget for the fiscal year 2016. To promote sustainable road maintenance, the project will pilot concessions supported by road tolls for the operation and maintenance of two selected sections.

12. **Private sector participation in road sector.** Sindh has successfully engaged the private sector in transport sector through the establishment of a PPP act, policy, guidelines, and legal framework. A number of PPP projects have been implemented. The WSD has identified eight candidate road projects with a total length of 700 km for private investors. At the same time, the government is also trying to engage the private sector in road maintenance through long-term concessions (such as operation, maintenance, and transfer). Under such concessions, private sector entities would operate and maintain the road for a specified period after rectifying

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<sup>8</sup> ADB. 2001. *Report and Recommendation of the President on Proposed Loans to the Islamic Republic of Pakistan for the Road Sector Development Program*. Manila.

major deficiencies in the roads and recover their costs through tolls. Sindh is one of the most advanced provinces in Pakistan in terms of using PPP in the road sector.

13. **Road safety and accident response.** Previous ADB loans supported the government's efforts to improve road safety. Under the institutional strengthening component of this project, the government has requested emergency response equipment for traffic police, who are first responders to accidents but lack the equipment needed to safely extract crash victims at the scene. Police are not trained to properly move people from vehicles and provide basic first aid and treatment to crash victims before they are sent to hospitals. The project will provide hydraulic cutters, lifting equipment, and basic first aid equipment. Training in the use of the equipment and emergency response procedures will be provided.

14. **Lessons learned.** Before 2009, ADB had financed road projects in each province, including ones that improved national and provincial highways, as well as rural roads. However, each project involved more than one executing agency, resulting in implementation difficulties. Despite the efforts of ADB and its counterpart agencies, significant implementation challenges remain in completing projects on schedule and on budget. Efficient project implementation requires improvements to the procurement, safeguards, and contract management performance of executing agencies. While ADB interventions in Pakistan have made some progress in improving the function of transport corridors, road administrations (especially in the provinces) still lack (i) asset management systems, (ii) sustainable means of revenue generation, (iii) contract management skills, (iv) needs-based allocations of funds, (v) a maintenance focus, and (vi) a record of compliance with international safeguard practices.<sup>9</sup> ADB should avoid ambitious institutional reform targets and unrealistic reform implementation schedules, and ensure government's ownership and incentives for institutional strengthening. ADB must recognize that reform is a long-term task that requires a step-by-step approach consistent with local realities.<sup>10</sup> Other success factors for ADB projects include a stabled professional project management unit (PMU), extensive monitoring and regular coordination, and a realistic implementation schedule.

## **B. Impact and Outcome**

15. The impact will be an efficient and integrated transportation system established to facilitate the development of a competitive economy (Pakistan Vision 2025).<sup>11</sup> The outcome will be key sections of the provincial highway network in Sindh improved.

## **C. Outputs**

16. Project outputs are (i) about 328 km of provincial roads rehabilitated; and (ii) institutional capacity of the WSD strengthened in road planning, maintenance, and road safety.

## **D. Investment and Financing Plans**

17. The project is estimated to cost \$227.51 million (Table 1).

<sup>9</sup> Independent Evaluation Department. 2013. *Country Assistance Program Evaluation: Pakistan, 2002–2012—Continuing Development Challenges*. Manila: ADB.

<sup>10</sup> ADB. 2010. *Completion Report: Road Sector Development Program*. Manila (Loans 1892-PAK and 1893-PAK).

<sup>11</sup> Government of Pakistan, Ministry of Planning, Development and Reform. 2014. *Pakistan Vision 2025: One Nation One Vision*. Islamabad.

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

Items	Amount <sup>a</sup>
<b>A. Base Cost<sup>b</sup></b>	
1. Road rehabilitation	193.05
2. Institutional strengthening	8.00
<b>Subtotal (A)</b>	<b>201.05</b>
<b>B. Contingencies<sup>c</sup></b>	<b>20.58</b>
<b>C. Financing Charges During Implementation<sup>d</sup></b>	<b>5.88</b>
<b>Total (A+B+C)</b>	<b>227.51</b>

<sup>a</sup> Includes taxes and duties of \$11.28 million to be financed from government cash contribution.

<sup>b</sup> In mid-2015 prices, including \$176.17 million for civil works, \$4.50 million for project management consultants, \$11.28 million in taxes and duties, and \$9.10 million for the institutional strengthening component.

<sup>c</sup> Physical contingencies computed at 5% for civil works. Price contingencies computed based on Asian Development Bank (ADB) cost escalation factors.

<sup>d</sup> Includes interest and commitment charges. Interest during construction for the 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: Asian Development Bank estimates.

18. The government has requested a loan of \$197.85 million from ADB's ordinary capital resources to help finance the project. The loan will have a 20-year term, including a grace period of 4 years, straight-line 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 (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. The average loan maturity is 12.25 years and a maturity premium payable to ADB is not required.

19. The government will contribute \$29.66 million to finance taxes, duties, and part of civil works and contingencies. The financing plan is in Table 2.

**Table 2: Financing Plan**

Source	Amount (\$ million)	Share of Total (%)
Asian Development Bank		
Ordinary capital resources (loan)	197.85	87.0
Government	29.66	13.0
<b>Total</b>	<b>227.51</b>	<b>100.0</b>

Source: Asian Development Bank estimates.

## E. Implementation Arrangements

20. The Planning and Development Department of the Sindh provincial government will be the executing agency; the WSD will be the implementing agency. A PMU has been established for overall implementation of the project.<sup>12</sup> An intergovernmental agency project steering committee will provide overall guidance and make key decisions. The steering committee will be chaired by the additional chief secretary of the Planning and Development Department, while senior officials from other concerned departments will be members.

<sup>12</sup> The existing PMU (financed by ADB, 2011. *Report and Recommendation of the President to the Board of Directors: Proposed Loans and Technical Assistance Grant to the Islamic Republic of Pakistan for the Flood Emergency Reconstruction Project*. Manila [Loan 2742-PAK]) is functioning well, and can be deployed for this project immediately.

21. Goods and civil works financed from the ADB loan will be procured in accordance with ADB's Procurement Guidelines (2015, as amended from time to time). Consultants will be recruited in accordance with ADB's Guidelines on the Use of Consultants (2013, as amended from time to time). Advance contracting will be considered for works, equipment, and consulting services to expedite project implementation. Retroactive financing may be allowed for up to 20% of the loan amount, provided that expenditures are incurred during the 12 months before the signing of the loan agreement. The government has been advised that approval of advance contracting and retroactive financing does not commit ADB to finance the project.

22. The implementation arrangements are summarized in Table 3 and described in detail in the project administration manual (PAM).<sup>13</sup>

**Table 3: Implementation Arrangements**

Aspects	Arrangements		
Implementation period	February 2016–December 2019		
Estimated completion date	31 December 2019 (estimated loan closing date: 30 June 2020)		
Management			
(i) Oversight body	Steering committee Additional chief secretary (chair) Secretary, Works & Services Department (member) Secretary, Finance Department (member) Secretary, Planning and Development Department (member) Representative of Economic Affairs Division (member) Project director (member, also serves as secretary of the steering committee)		
(ii) Executing agency	Planning and Development Department of Sindh		
(iii) Implementation unit	Works & Services Department of Sindh		
Procurement	International competitive bidding for works	6 contracts	\$187 million
Equipment	National competitive bidding	1 contract	\$0.5 million
Consulting services	Quality- and cost-based selection	2 contracts International 78 person-months; National 2,309 person-months	\$12 million
Retroactive financing and/or advance contracting	Advance contracting for civil works, equipment, and consulting services. Retroactive financing for up to 20% of the loan amount provided that expenditures are incurred during the 12 months before the signing of the loan agreement.		
Disbursement	The loan proceeds 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.

Source: Asian Development Bank estimates.

### III. DUE DILIGENCE

#### A. Technical

23. The project was prepared with project preparatory technical assistance.<sup>14</sup> The project does not pose any significant technical challenges. Six road sections were selected based on the criteria agreed upon by the government with consideration of traffic volume and road condition. Two roads are located in the upper Sindh and four roads in lower Sindh. The technical options include reconstruction and rehabilitation, depending on the condition of the road. The treatment strategy will upgrade all roads to the standard width of 7.3 m for carriageways with proper drainage and safety facilities. Future traffic growth and

<sup>13</sup> Project Administration Manual (accessible from the list of linked documents in Appendix 2).

<sup>14</sup> ADB. 2013. *Technical Assistance to the Islamic Republic of Pakistan for Provincial Road Improvement*. Manila (TA 8406-PAK).

climate-resilient measures were considered in the design. A road safety audit was conducted for all roads, and the results were incorporated into the final design.

## **B. Economic and Financial**

24. The selection of the road segments for the project and the improvement standard to be applied to each were based on an analysis of the project's costs and benefits. All selected sections have an economic internal rate of return above 12%. The economic evaluation of the overall project compared the incremental costs of building, operating, and maintaining the project roads against the incremental economic benefits arising from reductions in vehicle operating costs and travel times. The analysis was undertaken in line with standard ADB procedures, using a 12% discount rate and 20-year appraisal period after construction. The project cost-benefit analysis shows that the project is economically viable, yielding an overall economic internal rate of return of 15.8%.

25. Traffic on the project roads currently averages about 6,000 vehicles a day. Of these, more than 60% are motorcycles and rickshaws, and only 7% are heavy vehicles (e.g., vans, trucks, buses, and articulated vehicles). However, heavy vehicles cause most of the road wear. The imposition of tolls for heavy vehicles on two sections with high traffic volumes (Khyber-Sanghar and TM Khan-Badin) would generate average annual net revenue of about PRs135 million. This would not be sufficient to cover the repayment of investment costs, but it would improve sustainability by offsetting the additional cost of operating and maintaining the project roads.

## **C. Governance**

26. The WSD's procurement and financial management capacities were assessed and found to be sufficient. The WSD has implemented ADB funded projects and has adequate capacity to undertake procurement activities in accordance with ADB's procurement procedures. The WSD is also able to maintain good accounting systems, financial controls, and audit arrangements. Its financial accounting, auditing rules, and internal control systems follow generally accepted international practices. The WSD will maintain separate project records and accounts adequate to identify the works, goods, and services to be financed from the loan proceeds, financing resources received, expenditures incurred under the project, and use of counterpart funds. The WSD will ensure 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.

27. ADB's Anticorruption Policy (1998, as amended to date) was explained to and discussed with the government and the WSD. The specific policy requirements and supplementary measures are described in the PAM (footnote 13).

## **D. Poverty and Social**

28. The country's national poverty rate was 33% in 2012, while 21% of the population was living below the extreme poverty line.<sup>15</sup> Sindh is one of the poorest provinces in Pakistan with a same poverty rate of 33% as the national average. In addition to long-standing political instability and security challenges, the poor condition of infrastructure inhibits economic activity within and outside the province. The high rural-urban disparity in Sindh shows that 46% rural

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<sup>15</sup> Sustainable Policy Development Institute. 2012. *Clustered Deprivation: District Profile of Poverty in Pakistan*. Islamabad.

households are poor compared to only 20% urban household, especially southeast of Sindh (footnote 15). The project aims to accelerate economic growth by enhancing trade and traffic in the project areas, and reducing transport costs. The project will benefit local communities (through improved access to markets and social service facilities, and enhanced opportunities for community networking) and the population of the wider region through the transportation of goods. About 200 households, including men and women from settlements along the project roads, participated in consultations and focus group discussions. More than 95% of the participants stated that the project will increase economic and employment opportunities by improving links to markets, production centers, and public and social service facilities.

29. **Gender.** Established sociocultural practices in the project area mean that women residing along the project roads are unlikely to participate in civil works or roadside business with construction workers or drivers. Focus group discussions were undertaken with women in the project area, and a detailed gender analysis will be conducted by a national specialist near the start of implementation to identify priority concerns of local women. In preliminary consultations, women said the project benefits for them would include better transport services and improved access to social services, markets, education and health facilities, and jobs. The bidding documents provide clauses to ensure that all civil works contractors comply with applicable labor laws; do not employ child labor or forced labor; encourage the employment of the poor, particularly women; and do not offer different wages to men and women for work of equal value.

30. The prevalence of HIV/AIDS in Pakistan is 0.10% (2011). However, the potential risks of prevailing HIV/AIDS and other sexually transmitted infections and/or communicable diseases 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,<sup>16</sup> particularly in Karachi and rural areas. Further, during and after implementation, region-wide population movements across the project areas are expected and may increase the risk of human trafficking. There is no evidence that the project will increase HIV/AIDS incidence during and after implementation. However, any associated risks will be minimized by requiring the contractor to conduct awareness campaigns targeting construction workers and local populations during implementation. The construction supervision consultant and the executing agency will oversee those campaigns. The civil works bid documents and contract will include the requirement for such awareness campaigns.

## E. Safeguards

31. **Environment impact.** The overall environmental impact is minor. The project has been categorized as environment category B, in accordance with ADB's Safeguard Policy Statement (2009). The works for each road section will be limited to reconstruction and some widening and will be within the existing right of way (ROW). The environmental impacts during the construction phase are likely to be negative but temporary, due to generation of dust, noise, and exhaust; water from construction and worker camps; water contamination; violation of occupational health and safety regulations; erosion; and siltation. Potential operational impacts, such as noise, pollution, and safety issues caused by increased traffic, are expected to be insignificant. Mitigation measures to address all construction and operational impacts have been included in the environmental management plan (EMP) prepared as part of the initial environmental examination. The EMP will form part of the bidding documents and will be

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<sup>16</sup> Government of Pakistan, Ministry of Inter-Provincial Coordination. 2012. *Country Progress Report Pakistan – Global AIDS Response Progress Report 2012*. Islamabad.

mandatory for implementation by the contractor. Public consultations were conducted during project preparation, and all concerns of the affected persons and stakeholders were incorporated in the initial environmental examination and the EMP. A grievance redress mechanism has been established to continue receiving feedback and complaints, if any, from affected parties and to address them during construction and operation. Initial environmental examination reports were prepared for each road section and disclosed on the ADB website in July 2015. The WSD is well versed with ADB safeguard requirements, having implemented two ADB projects since 2002. The PMU and the project management consultant will monitor the EMP. The PMU will submit biannual environmental monitoring reports to ADB, and these will be disclosed on ADB's website. ADB will conduct an initial environment training workshop for the PMU, project management consultant, and contractors before construction starts. Additional training will be provided during construction by the supervision consultant, as necessary.

32. **Involuntary resettlement.** The project is classified category B, since it will affect 28 persons and relocate eight structures, in accordance with ADB's Safeguard Policy Statement. The design tried to avoid land acquisition and minimize involuntary resettlement impacts by using the existing alignment of the project roads and the most feasible technical design. The proposed rehabilitation works will be within the ROW limits. However, in some sections near settlements and along agricultural lands, adjoining landowners have encroached on the ROW. In those cases, the width of shoulder will be reduced to avoid resettlement. The impact assessment and full census was conducted, based on the detailed designs and the resettlement plan. The project will not have any land acquisition and major resettlement impacts, such as partially affected structures (permanent structures and temporary thatched sheds and kiosk) and trees encroaching into the ROW. All the affected households will restore their lost part structures outside of the ROW and will not be displaced physically or economically. The project impacts will be temporary and insignificant. Affected households will be compensated for all their lost assets at replacement cost; income restoration support will be provided for business and/or livelihood losses. The resettlement budget is \$0.5 million.

33. Affected persons and the public along the project roads were consulted and given information about the project during the preparation of the resettlement plan. The information provided included the main features of the resettlement plan, including project impacts, asset valuation, entitlements, and compensation provisions. The consultation and information-sharing process will continue throughout project implementation. The resettlement plan has been disclosed to public on the WSD and ADB websites in July 2015. The WSD will regularly monitor the implementation of the resettlement plan. The results, including social monitoring, will be shared with ADB during the implementation of the resettlement plan, as well as biannually during project implementation (after completion of the resettlement plan). The WSD, through the PMU, will have overall responsibility for overseeing resettlement activities. With the support of a social safeguards consultant, the PMU will be responsible for finalizing, updating, and implementing the resettlement plan, and then monitoring resettlement activities.

34. **Indigenous peoples.** The project is classified as category C since the project roads are located in the settled areas of Sindh, 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**

35. Major risks and mitigating measures are summarized in Table 4 and described in detail in the risk assessment and risk management plan.<sup>17</sup> The risks can be managed by adopting mitigating measures. The integrated benefits and impacts are expected to outweigh the costs of mitigation.

**Table 4: Risks and Mitigating Measures**

Risks	Mitigating Measures
The government’s continually insufficient road sector budget and unbalanced public investments in favor of road construction rather than road maintenance will result in unsustainability of road maintenance.	ADB will continue to encourage the provincial government to increase the road sector budget annually, and to invest more on road maintenance. ADB is supporting Sindh with technical assistance on public–private partnerships to reduce the funding gap, including in the road sector.
The deteriorating security situation will delay project implementation.	Most of the roads are located in safe areas. The local government will assign security forces to project sites, personnel, and contractors, especially for international consultants and contractors.
The government fails to approve the Sindh road master plan.	The project team will consult closely with the government during implementation, and brief stakeholders for each major milestone. The chief minister has appointed a working group to review and monitor master plan preparation. The project team will work closely with this working group to ensure the plan is acceptable to the government.

ADB = Asian Development Bank.  
Source: Asian Development Bank.

**IV. ASSURANCES**

36. The government has 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.

37. The government has agreed with ADB on certain covenants for the project, which are set forth in the loan agreement and project agreement.

**V. RECOMMENDATION**

38. 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 \$197,850,000 to the Islamic Republic of Pakistan for the Sindh Provincial Road Improvement 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 20 years, including a grace period of 4 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

18 September 2015

<sup>17</sup> Risk Assessment and Risk Management Plan (accessible from the list of linked documents in Appendix 2).

## DESIGN AND MONITORING FRAMEWORK

<b>Impact the Project is Aligned with</b>			
An efficient and integrated transportation system established to facilitate the development of a competitive economy (Pakistan Vision 2025) <sup>a</sup>			
<b>Results Chain</b>	<b>Performance Indicators with Targets and Baselines</b>	<b>Data Sources and Reporting Mechanisms</b>	<b>Risks</b>
<b>Outcome</b> Key sections of provincial highway network in Sindh improved	a. Percentage of road condition rated above <i>good</i> increased to 70% by 2020 (2014 baseline: less than 50%)	a. Executing agency's project completion report	Political instability and deteriorating security situation
<b>Outputs</b> 1. About 328 km of provincial roads rehabilitated	1a. By 2019, 328 km provincial highways are rehabilitated with international roughness index below 3.5 (2014 baseline: more than 7 on the average)	1a. PMC's project progress report	Deteriorating security situation delays project implementation
2. Institutional capacity of WSD strengthened in road planning, maintenance, and road safety	2a. More than 1,800 WSD staff trained by 2018 2b. Sindh road master plan approved by 2019 2c. RAMS upgraded and functioning by 2019 2d. More than 70% of annual maintenance budget allocated based on the results generated by RAMS, by 2019	2a.–2d. Executing agency's project completion report	The government fails to approve the Sindh road master plan
<b>Key Activities with Milestones</b>			
<b>1. About 328 km of provincial roads rehabilitated</b> 1.1 Civil works contracts awarded by Q2 2016. 1.2 Project management consultant selected by Q3 2016. 1.3 Civil works completed by Q4 2018.			
<b>2. Institutional capacity of the WSD strengthened in road planning, maintenance, and road safety</b> 2.1 Consultants selected by Q2 2016. 2.2 Hardware and software of training facility procured and installed by Q4 2016. 2.3 Emergency response equipment procured by Q4 2016. 2.4 Existing RAMS upgraded by Q4 2017. 2.5 Sindh road master plan completed by Q2 2018. 2.6 Training conducted every year and completed by Q4 2018.			
<b>Inputs</b>			
Asian Development Bank (loan): \$197.85 million (ordinary capital resources) Government of Pakistan: \$29.66 million			
<b>Assumptions for Partner Financing</b>			
Not applicable.			

km = kilometer, PMC = project management consultant, Q = quarter, RAMS = road asset management system, WSD = Works & Services Department.

<sup>a</sup> Government of Pakistan, Ministry of Planning, Development and Reform. 2014. *Pakistan Vision 2025—One Nation, One Vision*. Islamabad.

Source: Asian Development Bank.

**LIST OF LINKED DOCUMENTS**

<http://www.adb.org/Documents/RRPs/?id=46377-002-3>

1. Loan Agreement
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