



Project Design Advance

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Islamic Republic of Pakistan: Karachi Bus Rapid Transit Project

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Asian Development Bank

CURRENCY EQUIVALENTS

(as of 8 September 2016)

Currency unit	–	Pakistan rupee (PRe)
PRe1.00	=	\$0.00956
\$1.00	=	PRe104.630

ABBREVIATIONS

ADB	–	Asian Development Bank
BRT	–	bus rapid transit
PIU	–	project implementation unit
PDA	–	project design advance

NOTE

In this report, "\$" refers to US dollars.

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I. THE PROPOSED PROJECT

1. The proposed Karachi Bus Rapid Transit Project will help develop a sustainable urban transport system in Karachi, Islamic Republic of Pakistan, through the delivery of an integrated bus rapid transit (BRT) corridor. The project outcome will be improved public transport in Karachi, benefiting a population of 1 million. The project will consist of two interlinked outputs: (i) full restructuring of the Red Line BRT corridor,¹ and (ii) effective project management and sustainable BRT operations through institutional and organizational developments. The project is economically justified by major time savings for future BRT passengers, vehicle operating cost savings, better air quality, and savings in carbon emissions, which will in turn help improve the health of Karachi's citizens and mitigate climate change. The project will also help make Karachi more livable and safe, boost private sector investment, and foster gender equity.

2. The project is estimated to cost \$220 million. The project design advance (PDA) and the ensuing project loan are listed in the country operations business plan, 2016–2018 for Pakistan and are proposed to be financed from the ordinary capital resources of the Asian Development Bank (ADB), with an indicative financing of \$10 million for the PDA and \$100 million for the project loan.² The project follows priorities set in the country partnership strategy, 2015–2019 for Pakistan including (i) improving connectivity and access, especially for the poor, by promoting urban public transport systems; and (ii) reducing pollution through mass transit systems.³

3. The Government of Pakistan has already approved PC-II for counterpart financing.⁴ At the request and on behalf of the provincial Government of Sindh, ADB conducted the PDA consultants' selection process for the following consulting packages: (i) engineering, procurement, and construction management; (ii) operational design and business model; and (iii) project management, coordination, and capacity building. ADB has communicated the results to the Government of Sindh's Transport and Mass Transit Department, which is ready to sign the contracts upon effectiveness of the PDA agreement. The overall contract value (excluding taxes) for these consulting services is estimated at \$9 million, i.e., more than 80% of the estimated total contract value under the PDA. The PDA implementation readiness, as per para. 8 of the ADB Staff Instructions on PDA, has therefore been demonstrated.⁵

II. ACTIVITIES TO BE FINANCED BY THE PROJECT DESIGN ADVANCE

4. The PDA will finance consulting services, distributed into four packages. The engineering, procurement and construction management package covers (i) the detailed engineering design of the BRT corridor and depot, including all required field surveys such as topographical and hydrological surveys; (ii) the detailed project cost estimates; and (iii) procurement support to the implementing agency for all civil works contracts, including preparations of draft bidding documents and evaluations of proposals.⁶

¹ ADB approved a project concept paper and project preparatory technical assistance on 6 December 2013. The first phase of project preparation (selection and conceptual design of the BRT corridor) was completed in April 2015. The second phase under the project preparatory technical assistance (preliminary engineering design and due diligence) was completed in June 2016. The project entails "facade-to-facade" full restructuring of the corridor, including the BRT infrastructure (dedicated lanes and stations), mixed-traffic lanes, sidewalks, parking, green areas, energy-efficient streetlights, and proper drainage to climate-proof the BRT infrastructure.

² ADB. 2015. *Country Operational Business Plan: Pakistan, 2016–2018*. Manila.

³ ADB. 2015. *Country Partnership Strategy: Pakistan, 2015–2019*. Manila.

⁴ A PC-II is a Planning Commission pro-forma that is used for internal approvals of studies and project designs.

⁵ ADB. 2014. [Project Design Advance](#). *Compendium of Staff Instructions*. Manila.

⁶ In accordance with para. 23 of the Staff Instructions (footnote 5) on eligible items under the PDA, activities related to construction supervision will not be financed under PDA.

5. The operational design and business model package includes preparatory activities such as (i) design and implementation of the BRT business plan, operations plan, and branding and marketing plan; (ii) development of a bus industry restructuring program; (iii) specification of technical standards and functional requirements for the BRT fleet and other equipment to be procured under the project; (iv) design of viable public–private partnership schemes to finance specific components of the BRT system, such as the BRT fleet and the fare collection system; and (v) preparation of start-up BRT services.

6. Project management, coordination, and capacity building consultants will undertake (i) project management, including scheduling, cost control, and coordination of all preparatory works; (ii) capacity building and support for the government to establish the Sindh Mass Transit Authority; (iii) design and implementation of the project communication plan and community awareness and participation program; and (iv) legal and commercial aspects of all procurement-related activities.

7. Some of the project implementation unit (PIU) staff will be recruited individually as staff consultants under the PDA to assist the Transport and Mass Transit Department in managing the project throughout the PDA implementation period (24 months). The PIU structure and financing plan is in the PDA project administration manual. The PIU will staff about 16 experts; of these, the PDA will finance one international BRT technical advisor (6 months, intermittent) and the following nine local specialists:

- (i) project director (24 months, full-time);
- (ii) communication and media relations specialist (12 months, intermittent);
- (iii) procurement specialist (12 months, full-time);
- (iv) bus operations expert (24 months, full-time);
- (v) civil works, roads, and structures engineer (24 months, full-time);
- (vi) environment specialist (12 months, intermittent);
- (vii) gender, social and public participation specialist (12 months, intermittent);
- (viii) resettlement specialist (18 months, full-time); and
- (ix) transport economist (12 months, intermittent).

8. The PDA will result in a procurement-ready project, enabling contract awards and disbursements immediately after loan effectiveness, and saving potentially 2 years from loan effectiveness to the mobilization of contractors during the initial phase of implementation.

III. COST ESTIMATES AND FINANCING ARRANGEMENTS

9. The total cost of project preparatory activities under the PDA is estimated at \$11.98 million. The government has requested a loan of \$9.7 million from ADB's ordinary capital resources to help finance the PDA project. The government will contribute \$2.28 million to cover taxes and duties. The PDA loan will have an annual interest rate determined in accordance with ADB's London interbank offered rate (LIBOR)-based lending facility, and other terms and conditions set forth in the PDA agreement.⁷ The refinancing date is 30 October 2018, or the actual date of effectiveness of the ensuing loan as may be agreed between ADB and the borrower. The estimated interest charge is \$500,000. The PDA project investment and financing plan is in Table 1.

⁷ If no ADB loan agreement providing for the refinancing of the PDA has become effective by the refinancing date, for reasons including the availability of alternative financing by development partners, the borrower will be required to (i) repay the PDA loan and accrued financing charges in accordance with the relevant provisions of the PDA agreement, and (ii) pay the accrued financing charges in cash on the first principal payment date, which will be 6 months from the PDA account closing date.

Table 1: Investment and Financing Plan for the Project Design Advance^a
(\$ million)

Item	Cost ^b	ADB	Government ^c
A. Base Cost^d			
1. EPCM	5.19	4.20	0.99
2. ODBM	3.09	2.50	0.59
3. PMCCB	2.84	2.30	0.54
4. PIU	0.86	0.70	0.16
Subtotal (A)	11.98	9.70	2.28
B. Contingencies^e	0.00	0.00	0.00
Total (A+B)	11.98	9.70	2.28

ADB = Asian Development Bank; EPCM = engineering, procurement, and construction management; ODBM = operational design and business model; PIU = project implementation unit; PMCCB = project management, coordination and capacity building.

^a A project design advance (PDA) loan carries interest and commitment charges where applicable, and the payment of these charges is deferred until the PDA is repaid from the ensuing financing, or other repayment terms take effect. Commitment charges are waived for 2 years from PDA signing. If the ensuing financing does not become effective within that period, commitment charges accrue thereafter.

^b Includes taxes and duties of \$2.28 million for fiscal years 2016–2018, to be financed in cash from government resources.

^c As part of the government's contribution, the audit of the annual PDA project financial statements will be performed free of cost by the auditor general of Pakistan.

^d In mid-2016 prices.

^e Output-based lump-sum contracts, which are being used for all proposed assignments under PDA (EPCM, ODBM, and PMCCB) do not allow for the provision of price and physical contingencies.

Source: Asian Development Bank estimates.

IV. IMPLEMENTATION ARRANGEMENTS

10. The borrower is Pakistan, which will enter into a subsidiary loan agreement with the provincial Government of Sindh. The executing agency is the Planning and Development Department, and the implementing agency is the Government of Sindh's Transport and Mass Transit Department. Once the Sindh Mass Transit Authority is established, staffed, and operational, it will replace the Transport and Mass Transit Department as the implementing agency, upon the prior approval of ADB. The implementation arrangements are summarized in Table 2 and described in detail in the PDA project administration manual.

Table 2: Implementation Arrangements

Aspects	Arrangements		
PDA implementation period	October 2016–September 2018		
Estimated completion date	30 September 2018		
Management			
(i) Oversight body	Technical Committee on Integration of BRT Lines, chaired by the secretary, Transport and Mass Transit Department		
(ii) Executing agency	Planning and Development Department, Government of Sindh		
(iii) Key implementing agency	Transport and Mass Transit Department, Government of Sindh (to be later replaced by the Sindh Mass Transit Authority)		
(iv) Implementation unit	Secretariat of the Government of Sindh, 16 staff proposed		
Consulting services^a			
EPCM	QCBS 90:10	120 person-months minimum	\$5.19 million
ODBM	QCBS 90:10	74 person-months minimum	\$3.09 million
PMCCB	QCBS 90:10	96 person-months minimum	\$2.84 million
PIU staff consultants	ICS	156 person-months	\$0.86 million
Advance contracting	Consultant recruitment		
Disbursement	Disbursements under PDA will be made in accordance with ADB's		

Aspects	Arrangements
	<i>Loan Disbursement Handbook (2015, as amended from time to time).</i>

ADB = Asian Development Bank; BRT = bus rapid transit; EPCM = engineering, procurement and construction management; ICS = individual consultant selection; ODBM = operational design and business model; PAM = project administration manual; PDA = project design advance, PIU = project implementation unit, PMCCB = project management, coordination, and capacity building; QCBS = quality- and cost-based selection.

^a ADB completed the consultant selection for the EPCM, ODBM, and PMCCB packages using output-based terms of reference and lump-sum contracts. ADB is also selecting the PIU staff consultants under the PDA, using ICS.

Source: Asian Development Bank.

V. SAFEGUARDS

11. The safeguard categorization for the ensuing project is expected to be B for environment and A for involuntary resettlement, based on the initial environment examination and the land acquisition and resettlement plan prepared under ADB's project preparatory technical assistance. The land acquisition and resettlement plan and the initial environment examination will be updated under the PDA, based on detailed engineering design. An environmental management plan will also be devised under the PDA. No adverse impacts are expected on indigenous peoples.

VI. DECISION

12. Management has approved the provision of a loan not exceeding \$9,700,000 to the Islamic Republic of Pakistan from ADB's ordinary capital resources, in the form of a project design advance (PDA) for the Karachi Bus Rapid Transit Project; and the President hereby reports this action to the Board.