



Combined Project Information Documents / Integrated Safeguards Datasheet (PID/ISDS)

Appraisal Stage | Date Prepared/Updated: 14-May-2019 | Report No: PIDISDSA27126

**BASIC INFORMATION****A. Basic Project Data**

Country Pakistan	Project ID P166732	Project Name Karachi Mobility Project	Parent Project ID (if any)
Region SOUTH ASIA	Estimated Appraisal Date 29-Apr-2019	Estimated Board Date 27-Jun-2019	Practice Area (Lead) Transport
Financing Instrument Investment Project Financing	Borrower(s) Ministry of Finance- Economic Affairs Division	Implementing Agency Sindh Mass Transit Authority	

Proposed Development Objective(s)

The Project Development Objective is to improve mobility, accessibility and safety along selected corridors in Karachi.

Components

Urban Road Infrastructure- Yellow Corridor
Development and Operationalization of a BRT System – Yellow Corridor
Capacity Building and Technical Assistance

PROJECT FINANCING DATA (US\$, Millions)**SUMMARY**

Total Project Cost	438.00
Total Financing	438.00
of which IBRD/IDA	382.00
Financing Gap	0.00

DETAILS**Private Sector Investors/Shareholders**

Equity	Amount	Debt	Amount
Government Contribution	18.50	IFI Debt	382.00
Government Resources	18.50	IBRD	382.00



Non-Government Contributions	37.50		
Private Sector Equity	37.50		
Total	56.00		382.00

Payment/Security Guarantee

Total			0.00
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Environmental Assessment Category

B-Partial Assessment

Decision

The review did authorize the team to appraise and negotiate

B. Introduction and Context

Country Context

1. **Pakistan, the sixth most populous country in the world, is at a crossroads.** The economy accelerated with GDP growth of 5.8 percent in FY18 but is projected to slow to 3.4 percent in FY19 as fiscal and external imbalances are addressed. Poverty declined from 64.3 percent in 2001 to 24.3 percent in 2015, but inequality persists. The country ranks low on the 2018 Human Capital Index, at 134 out of 157 countries. Gender disparities continue, and female labor force participation was only 20.1 percent in 2018. Natural disasters and unreliable water and power supply constrain progress. After the onset of another boom and bust cycle, a new IMF program is under discussion. Growth is expected to gradually recover as structural reforms take effect and macroeconomic conditions improve. Pakistan will need to protect its poor and those just above the poverty line in the next few years through targeted safety nets. Over the medium to long term, Pakistan needs to invest more and better in human capital, raise more revenue, simplify ease of doing business, expand regional trade and exports, and manage its natural endowments sustainably.

2. **Karachi with an estimated population of over 16 million¹, is Pakistan’s largest city, economic financial hub and main port.** It contributes 15 percent of national GDP and the largest share of national tax revenues, industrial employment, manufacturing and high-end services². The city dominates the economic landscape of Sindh, with nearly all of the province’s industrial and service economy and the majority of its labor force. It has the potential to be the engine of economic growth for the country, given its size, location, and industrial and human capital. In recent decades, however, the city’s livability and competitiveness have declined. It now ranks 137 out of 140 cities globally for livability. In the recent decades access to basic infrastructure and services have declined. Nearly half its residents live in informal

¹ Pakistan Bureau of Statistics, 2017 census, provisional summary

² World Bank, Transforming Karachi into a Livable and Competitive Megacity – A City Diagnostic and Transformation Strategy, Washington DC, 2018; p.2



settlements (katchi abadis), only half the city's water demands are met; public transport has deteriorated; and pollution is severe. Karachi is also one of the most disaster vulnerable districts in Pakistan. Nonetheless, a substantial reduction in violent crime has been achieved through concerted government efforts.

3. **The Karachi City Diagnostic and Transformation Strategy identifies infrastructure gaps of over \$9 billion in public infrastructure.** Institutional strengthening and investments aiming to enhance livability, competitiveness and sustainability have emerged as priorities for Karachi. The Karachi Neighborhoods Improvement Project ([KNIP](#)), currently under implementation, aims to upgrade three neighborhoods and to improve ease of doing business in Karachi to strengthen citizen-state confidence and show early wins. Building on this, additional interventions in urban management and competitiveness, water supply and sewerage, and urban mobility and transport are being considered with support from the World Bank Group (WBG), Asian Development Bank (ADB) and Asian Infrastructure Investment Bank (AIIB). Maximizing Financing for Development approaches will be used to crowd in commercial financing as well.

Sectoral and Institutional Context

4. **The citizens of Karachi rely almost entirely on the road network for travel within the city.** The city has approximately 10,000 kilometers of roads, with local roads accounting for 93 percent and highways and arterial roads for less than 5 percent of the total length. Karachi has also six arterial or trunk roads that extend radially from the central area. There is currently no mass transit system per se. There are nearly 13.5 million motorized trips made each day within the city, of which about 42 percent are made by public and 58 percent by private transport. There were 3.6 million registered vehicles in Karachi as of mid-2015 (over 30 percent of the national total), and private vehicles—mainly motorcycles and cars—constitute about 84 percent of total registered vehicles, while public transport accounts for 4.5 percent of the total registered vehicles. With growth rates for private vehicles at over 4 percent, over 1000 new vehicles added to the streets of the city each day. There were over 12,000 public transport vehicles (including buses, minibuses, and coaches) serving 267 routes in the city. However, the number of buses has been steadily decreasing, and in 2017, reduced to less than 5000 vehicles serving about 100 routes. A city in the scale of Karachi should have at least 15,000 modern buses.

5. **Women have a particularly low economic participation rate in Karachi at 8 percent.** This is due to the lack of affordable, **safe and secure transport**. According to the Japan International Cooperation Agency (JICA) Household Survey, female ridership in public transport was less than 15 percent. The Government of Sindh (GoS) has addressed this issue in its "Vision 2025" plan which targeted a 45 percent economic participation for women. This will require massive improvements in public and non-motorized transport suitable for their use.

6. **The analysis of household data collected in a JICA-sponsored study indicates that jobs in Karachi are highly concentrated within the inner city.** These centrally located jobs are often high skill "white collar" jobs, while employment opportunities for people with lower skill-sets and education qualifications are much more dispersed. As the city expands to accommodate a growing population, the poor increasingly live at the periphery. Travel from their low density, sprawling housing locations in the far



suburbs to the equally spread out locations with suitable employment opportunities is costly and time consuming. This limits employment possibilities for the poor, especially women.

7. **As part of the study for Karachi Transportation Improvement Project known as JICA Master Plan of 2012, a Karachi Urban Transport Master Plan (KUTMP 2030) was developed.** KUTMP included projects in the road sector as well, including 33 projects along arterial roads with total length of 306 km and maintenance of existing roads. KUTMP has also identified priority mass transit projects that Karachi needs to undertake to overcome the looming urban mobility crisis. These recommendations focus on immediate and future needs for which implementation steps are to be taken. KUTMP proposed 2 Metro Rail Transit (MRT) Lines (KCR and KCR extension), 4 Light Rail Transit (LRT) Lines (Blue, Brown, Yellow and Silver), and 5 BRT Lines (Green, Red, Orange, Purple and Aqua). KUTMP prioritized the implementation of the KCR, and the Green, Orange, Red, Blue and Yellow Lines. Due to financial considerations, GoS has decided to implement all 5 of the highest priority lines as BRT. The Green Line is financed by the Federal Government and is being implemented by Karachi Infrastructure Development Company Limited (KIDCL). Its infrastructure is almost complete and KIDCL plans to involve the private sector in operating its bus services. The Red line will be financed by ADB and AIIB and is in appraisal stage. The Orange Line financed and implemented by the GoS via the Sindh Mass Transit Authority (SMTA), is 50 percent completed.

8. **In Karachi, urban infrastructure and service delivery is fragmented among national, provincial and local governments.** In recent years, many core city services have been centralized under the Government of Sindh (GoS) like solid waste, water and sewerage, mass transit, land use and building control, among others. Local councils represented by Karachi Metropolitan Corporation (KMC) and the six District Municipal Corporations (DMCs) deliver basic services in Karachi but suffer from limited financial resources and institutional and governance weaknesses. Institutional fragmentation and unclear or overlapping responsibilities have thus led to deterioration in the delivery of basic urban services.

9. **Multiple government departments and authorities are dealing with transport in the city with little coordination among them.** Various bodies—such as the National Highway Authority, GoS, KMC, KDA, DHA, and cantonments—administer roads in Karachi. KMC is responsible for the administration of over 40 percent of roads in the city. The Transport and Mass Transit Department is the principal planning, regulatory, and implementing body of GoS responsible for dealing with all urban transport matters at the provincial level. Currently, responsibilities for major roads transport and traffic management within the city are shared between KMC and KDA. Fares for public transport are regulated by the Transport and Mass Transit Department under GoS. The District Regional Transport Authority (DRTA) issues route permission for public transport in Karachi. However, the decision making for the permission is governed by a board, with representation from the police, city government, and Provincial Transport Authority and DRTA. The public-private partnership (PPP) unit of the GoS is also assisting the Transport and Mass Transport Department in the development of mass transit initiatives in Karachi.

10. **SMTA was established in October 2016 under the Sindh Mass Transit Authority Act, 2014.** The Authority was created with the purpose of planning, developing, operating, maintaining and regulating mass transit systems in the Province of Sindh. Its core function is to provide safe, efficient, affordable, sustainable and reliable mass transit systems. SMTA has not been able to deliver as originally envisaged. It does not have an adequate technical team to face the challenges of planning and implementing a BRT system. SMTA transferred the management of the operations of the Green Corridor to KIDCL. A public



Company named TransKarachi was registered with the Securities and Exchange Commission of Pakistan in August 2018 under Section 42 of the Companies Act of 2017. SMTA may assign some of its functions to be performed by TransKarachi.

11. **Karachi's extremely high vulnerability to natural and climate-related disasters.** Recurrent floods (due to poor drainage) and future rises in sea levels further complicate its urban mobility challenges. Expected temperature increase in Pakistan is higher than the expected global average increase, expected to reach +1.4-3.7°C by 2060. Warming is expected to be more rapid in the south and coastal zones, where Karachi is located. While Karachi is not affected by the flooding of Indus river basin in Northern provinces, the Lyari and Malir rivers (close to or traversing the Yellow Corridor locations) could expose the project location to some risk of river flooding. This means that there could be more than a 10 percent probability of damaging floods (above 0.5 m inundation depth) occurring in the next 10 years in this urban area - combining river and surface as well as "pluvial" floods. The project area may experience a 40 centimeter rise in sea-levels over the course of the century. During the project utility life (20 years), it will not be affected by rises in sea level as these will probably remain under manageable levels and affect the general urban fabric more than the BRT infrastructure. In the longer term (end of the century) the South and East districts of Karachi will be affected, along with the project. Strong wind hazard resulting from cyclones is considered high according to ThinkHazard!³ for the East District of Karachi where the BRT Yellow Corridor is located. There is more than a 20 percent chance of potentially-damaging wind speeds (above 80 kilometers per hour) in the project area in the next 10 years.

C. Proposed Development Objective(s)

Development Objective

12. The Project Development Objective is to improve mobility, accessibility and safety along selected corridors in Karachi.

Key Results

13. The key results that will measure the achievement of the PDO are as follows:

- (a) Car travel time during peak hour along the Yellow Corridor,
- (b) Ridership of the BRT system (passengers per day), of which women ridership (percentage),
- (c) Percentage of trip jobs within the Corridor catchment area out of all work trips in Karachi that are accessible within 60-minute commute by walking and taking the Public Transport System (Urban Accessibility Index)
- (d) Number of road traffic fatalities broken down by road user type.

D. Project Description

14. **Component I: Urban Road Infrastructure along the Yellow Corridor (US\$ 171.9 million of which expected IBRD financing in US\$ 158.5 million and GoS financing of US\$ 13.4 million).** This component

³ <http://thinkhazard.org/en/report/188-pakistan>



will finance:

- (i) Reconstruction of road infrastructure and related utilities improvement and shifting (e.g. street lighting, sewer/water supply, drainage, oil pipeline) and non-motorized transport facilities such as motorcycle lanes, footpaths and pedestrian crossing along the Yellow Line Corridor and its direct and feeder service routes,
- (ii) Implementation of the recommendations and mitigations measures identified by Environmental Management, and Compensation and Livelihood Rehabilitation Plans prior and during construction, and
- (iii) Detailed designs, construction supervision activities and third-party monitoring.

15. Component II: The Development and Operationalization of a BRT System along the Yellow Corridor (US\$ 260.0 million of which expected IBRD financing in US\$ 218.5 million, GoS US\$ 4.0 million, and Private Sector US\$ 37.5 million). This component will finance:

- (i) Construction of the BRT infrastructure, including segregated busways, interchange facilities, stations, terminal and depots,
- (ii) Procurement and installation of ITS equipment and fare collection system,
- (iii) Procurement of the BRT buses assigned to servicing the Yellow Corridor,
- (iv) Implementation the social management plan including labor redeployment services, for the affected existing bus operators including drivers, conductors,
- (v) Technical Assistance to implement and monitor GBV and other Gender Actions,
- (vi) The development of a TOD strategy along the yellow Corridor,
- (vii) Technical Assistance for Transaction Advisory Services, and
- (viii) A program of regular engagement with key stakeholders, and implementation of a public relations and media strategy for generating support and disseminating information on the BRT system.

16. Component III will finance Capacity Building and Technical Assistance (US\$ 6 million of which expected IBRD financing in US\$ 5 million and GoS US\$ 1 million). This component will finance:

- (i) Project management cost including TA for processing compensation/severance payments and managing labor redeployment services,
- (ii) Technical assistance in traffic management and road safety,
- (iii) Support to regional transport authorities in automating the management and monitoring of bus routes permits, and
- (iv) Institutional strengthening of transport sector management in Karachi.

E. Implementation

Institutional and Implementation Arrangements

17. Implementation period of the project is planned for six (6) years (July 2019 to June 2025).



18. **The Project's Implementation Arrangements (IA) cannot be designed in isolation of the existing institutional arrangements in the urban transport sector.** SMTA remains a nascent and understaffed authority, and needs support to be able to plan, design, implement and manage mass transit systems in Karachi and other cities of Sindh. Its organogram shows 69 professional positions, of which only 19 have been filled.
19. **International experience finds that SMTA should focus on defining a policy for transport integration in Sindh, including regulations, strategic planning and design of mass transit systems.** For this, SMTA shall select staff with the required background who will be further trained to exercise these activities throughout the project lifecycle. SMTA may delegate some of its functions to TransKarachi, especially the management of the operations and maintenance of the mass transit corridors once they are built.
20. **Project oversight will be the responsibility of the SMTA Board.** A separate Project Steering Committee is not envisaged as all concerned stakeholders are already part of the SMTA Board. SMTA and Sindh Transport and Mass Transit department will ensure meetings of SMTA Board are held regularly i.e. at least once a month for the first year of project implementation.
21. **The Project does not envisage a separate standalone project implementation unit.** An internal Project Management Team (PMT) comprising of existing SMTA staff will be notified and will be supported by management and technical consultants as necessary. This arrangement will allow the project build SMTA's capacity, which is not possible with a Project Implementation Unit (PIU) staffed primarily with individual consultants. The project management team will consist of staff from the Directorates of Planning, Projects, Bus Operations, ITS and Business Development. The Project Management Team will be notified before Project approval. SMTA has already started the process to hire few key positions, including Environment, Communications, Gender specialists, and Secretary of Board. These positions will be filled before project effectiveness. SMTA will also hire social, procurement and contract management specialists before effectiveness. Additional engineering and technical staff will be hired as per requirement before commencement of civil works.
22. **The Project Management Team will receive implementation support from the World Bank and from a dedicated infrastructure project management firm as well as technical experts in BRT implementation** to be hired under the project for a period of three years to give proper skills and to strengthen the Project Management Team. This assistance will be financed under component 3 of the project.
23. **The operation and maintenance management function can be exercised by TransKarachi** that is being formed under the Red BRT Corridor Project with funding from ADB over 3-year period. The Bank will coordinate with ADB for capacity building and institutional strengthening of all institutions.
24. **The maintenance and rehabilitation of the existing road infrastructure is the responsibility of KMC.** For the implementation of Components-I and II, GoS will issue the necessary directives to hand over responsibility of the entire corridor from Numaish to Dawood Chowrangi to SMTA. SMTA will be responsible for contracting the civil works and managing the supervision consultants. SMTA will also be



responsible for managing the implementation of the compensation and livelihood rehabilitation plan.

25. **Component-III involves a Technical Assistance in traffic management and road safety activities.** Multiple stakeholders are involved in this component, including KDA, KMC, Traffic Police and Health Department.

26. **The procurement documents for hiring the Design/Supervision Consultant are under preparation.** The request for Expressions of Interest (EOI) for the Design/Supervision Consultant will be issued in June 2019 and the Consultant firm will be expected to mobilize by October 31, 2019. The detailed designs of the BRT infrastructure and road rehabilitation works are expected to be completed by June 30, 2020.

F. Project location and Salient physical characteristics relevant to the safeguard analysis (if known)

The proposed project will rehabilitate three of Karachi's strategic road network's axis of Shahrah-e-Qaideen Road, Korangi Road, and Korangi Industrial (8000) Road for a total length of 21 km ("Yellow Corridor"). Anchored on the insertion of a median-aligned mass transit solution in the form of a modern and efficient BRT system, the project aims at improving the mobility conditions of all road users prioritizing and promoting the use of sustainable transport means and practices – i.e. collective motorized modes and Non-



Motorized Transport (NMT). The design proposal features the following key components in order of importance: 1. NMT: a. 5 m wide (ROW permitting) per direction protected boulevard for Non-motorized transport users (pedestrian, bicycles) housing, among others, urban furniture, lighting, and landscaping – addition and/or consolidation to the baseline which often neglects its presence. b. Signalized at-grade pedestrian crossings along Korangi Road and Shahrah-e-Qaideen Road, and grade separated crossings along 8000 Road (underpass) and Shahrah-e-Faisal (bridge). 2. Public Transport: a. Along the Main corridor alignment – 1 dedicated lane (3.5 m wide) per direction for BRT exclusive use – addition to the baseline. Two lanes are contemplated at station locations to allow for overtaking maneuvers for BRT vehicles. b. Along the BRT complementary off-corridor road network (used by feeder/direct services) – on pavement structure: specific interventions to improve flow conditions; on public transport facilities: bus shelters and waiting areas at predetermined locations. c. BRT associated facilities including 28 stations, 2 bus depots all within the existing ROW or design on government-owned land. 3. General Traffic: a. 1 dedicated lane for (3 m wide) per direction for motorbike exclusive use – addition to the baseline. b. 3 mixed traffic lanes (3-3.5 m wide) per direction throughout the alignment – maintained from the baseline. c. Along 8000 Road intersection upgrades at the existing 6 roundabouts allowing for two through mixed traffic lanes via underpass and signalized at-grade 4-phase intersections with dedicated phases for pedestrian flows. d. Along the remainder sections, all intersections are simplified to 2-phase signals by removing right-turn movements. The design premise is driven by universal access principles, pedestrian ease of use, and traffic calming principles (10 m max turning radii and speed tables among).

G. Environmental and Social Safeguards Specialists on the Team

Chaogang Wang, Social Specialist
 James Orehmie Monday, Environmental Specialist
 Najm-UI-Sahr Ata-Ullah, Social Specialist

SAFEGUARD POLICIES THAT MIGHT APPLY

Safeguard Policies	Triggered?	Explanation (Optional)
Environmental Assessment OP/BP 4.01	Yes	The proposed project is expected to have an overall positive environmental impact provided : (i) the expected modal shifts in passenger choice from private vehicular use to public buses will take place, as a result of the project, and (ii) the BRT buses consumes less fuel per passenger , which together, will then lead to significant reduction of vehicular pollutant emissions into the air.



However, construction activities in the short term and land use changes along the corridor in the medium to longer term, if not carefully planned for and managed, may potentially lead to adverse environmental impacts.

Therefore, the proposed project triggers Environmental Assessment OP4.01 and consistent with the environmental risks and potential impacts described, EA category B has been assigned to the project. Furthermore, to ensure these impacts are understood and can support the decision-making process and the engineering design phase, the SMTA prepared a comprehensive Environmental Impact Assessment, consistent with the requirements of the GoS and OP4.01, that qualitatively and quantitatively analyzed the potential impacts and effects of the proposed project and included a detailed Environmental Management Plan (EMP). The EIA/EMP was disclosed locally on April 3, 2019.

The project has potential social impacts which includes : a) relocation of 120 vendors; b) potential effects on the livelihood of existing public transportation providers, including the bus operators, drivers and so on; (c) potential effects on removal street parking spaces in certain sections; (d) social impacts on shared taxi drivers; and (e) changing citizens' social habit in using public transportation.

To mitigate these social risks, a Social Impact Assessment including a Social Management Plan and a Gender Action Plan has been carried out . The social impact assessment report has been disclosed locally on April 3,2019.

Performance Standards for Private Sector Activities OP/BP 4.03	No	Not applicable
Natural Habitats OP/BP 4.04	No	The proposed project will not impact Natural Habitats as defined by the policy.
Forests OP/BP 4.36	No	The proposed project will not impact Forests as defined by the policy.



Pest Management OP 4.09	No	This policy is not triggered as the use of pesticides is not envisaged in this project.
Physical Cultural Resources OP/BP 4.11	No	There are archeological, cultural and religious sites and relics within the corridor. However, the EIA has confirmed that these will not be affected by the project. But procedures for chance finds have been prepared and included in the EMP.
Indigenous Peoples OP/BP 4.10	No	This policy is not triggered as there are no known indigenous peoples in the project area of influence.
Involuntary Resettlement OP/BP 4.12	Yes	The BRT Corridor will be built within the right of way of existing road and no land acquisition is involved. However, this policy is triggered as there are vendors within the right of way in some sections along the corridor and some of these vendors will need to be relocated because of the implementation of the project. To mitigate the impacts on these vendors, a compensation and livelihood rehabilitation plan (CLRP) has been prepared by following OP 4.12 and relevant laws and regulations of Government of Pakistan. The CLRP has been disclosed locally on April 3, 2019.
Safety of Dams OP/BP 4.37	No	This policy is not triggered as there is no dams involved in the project.
Projects on International Waterways OP/BP 7.50	No	The proposed project will not impact International Waterways as defined by the policy.
Projects in Disputed Areas OP/BP 7.60	No	This policy is not triggered as there are no known disputes over the project area

KEY SAFEGUARD POLICY ISSUES AND THEIR MANAGEMENT

A. Summary of Key Safeguard Issues

1. Describe any safeguard issues and impacts associated with the proposed project. Identify and describe any potential large scale, significant and/or irreversible impacts:

The proposed project is expected to have an overall positive environmental impact provided : (i) the expected modal shifts in passenger choice from private vehicular use to public buses will take place, as a result of the project, and (ii) the new planned buses consumes less fuel (Hybrid) and the old buses will be scrapped, which together, will then lead to significant reduction of vehicular pollutant emissions into the air. Furthermore, if managed properly, positive land use changes will occur along the corridor that could lead to more controlled and sustainable urban regeneration and development using a green growth approach. Similarly, these positive impacts are also likely to occur along the Red and Green Line corridors, which are being planned/constructed contemporaneously with the Yellow Line, thereby likely to result in cumulative impacts along the three corridors with potentially overall positive multiplier effects for the city and its residents.



However, construction activities in the short term and land use changes along the corridor in the medium to longer term, if not carefully planned for and managed, may potentially lead to adverse environmental impacts. Construction impacts will include noise, dust, road safety concerns for the local public and road users due to heavy presence of construction trucks and other large vehicles, temporary disruption to traffic patterns as access along certain sections of the corridor are diverted to all for construction activities to take place, occupational health and safety issues for construction workers and local communities, vibration and local flash flooding. These construction related impacts will mostly be temporary and can either be avoided altogether by design changes or managed through readily available tangible mitigation measures.

The proposed project will primarily generate positive social impacts such as easing traffic flows and travel time savings, improved transportation for the poor, persons with disabilities, improved road safety conditions, and additional jobs.

The BRT system will be developed within the exiting right of way (ROW) and will not involve new land acquisition. However, the project will affect 120 persons who are currently doing businesses within the ROW. PAPs include informal vendors, skilled labors and plant nurseries owners and employees.

In addition to the impacts on the vendors within the ROW, the following potential adverse social impacts and risks have been identified: (a) potential effects on the livelihood of existing public transportation providers, including the bus owners, drivers and so on; (b) potential effects on removal street parking spaces in certain sections; (c) social impacts on shared taxi drivers; and (d) changing citizens' social habit in using public transportation.

2. Describe any potential indirect and/or long term impacts due to anticipated future activities in the project area: Land use changes along the corridor will be the most significant indirect impact, if managed properly would be a positive impact. The creation of this newly dedicated public bus lanes and corridor will have medium to long term land uses changes due to the expected modal shift from private vehicles (cars and motorcycles) and old and inefficient public buses (using dirty fuels) to the new modern and efficient hybrid public buses consuming less fuel. Land uses changes will occur as businesses and private citizens make physical changes to their properties and other physical assets along the corridor to accommodate the change in vehicular and pedestrian traffic patterns and volumes caused by the modal shift. This will provide a good opportunity for city planners to manage these changes in a more sustainable way through enforcement of zoning laws and other local planning regulations and permits so that these land use changes are not done in an uncontrollable manner but in a way that moves toward planned spaces and not create more informal settlements.

3. Describe any project alternatives (if relevant) considered to help avoid or minimize adverse impacts.

Several project alternatives were considered particularly when deciding which mass transit corridor from the master plan to chose from and which technology to adopt for the new buses as well as the design of the infrastructure.

- Green and Orange corridors are under construction, and the Red corridor will be financed by ADB. Two other alternative BRT corridors are available, the Blue and the Brown , the construction of a BRT along both of them will have more social adverse impact than the Yellow Corridor due to more encroachment on the right of way.
- Three bus engine technology were analyzed : Electric, CNG-Hybrid and Diesel-Hybrid. The CNG-Hybrid was the preferred choice , however due to CNG shortage in Pakistan and Karachi in particular, the Diesel-Hybrid with regenerative braking system was selected.
- The BRT will be at grade with only one pedestrian overhead-bridge , thus it minimizes mass infrastructure. When



choosing the feeder roads to include thus to rehabilitate , careful consideration was given to the alignment to minimize traffic disruptions, long term impacts on the public and private property, impact on mobile vendors and construction related impacts.

4. Describe measures taken by the borrower to address safeguard policy issues. Provide an assessment of borrower capacity to plan and implement the measures described.

The SMTA has prepared a comprehensive Environmental Impact Assessment that provides a satisfactory qualitative and quantitative analysis of the impacts, project alternatives and detailed mitigation and monitoring measures to manage the identified impacts in a corresponding Environmental Management Plan (EMP), consistent with the requirements of the Government of Sindh (GoS) Environmental Protection Agency (EPA) and the Bank's triggered Environmental Assessment OP4.01.

To mitigate impacts on vendors, a Compensation and Livelihood Rehabilitation Plan (CLRP) has been prepared by following the World Bank's OP 4.12 on Involuntary Resettlement and relevant laws and regulations in Pakistan. The CLRP includes the detailed census of the affected people, an inventory of affected assets, and socioeconomic surveys and extensive consultations with the PAPs. The CLRP also provides details on procedures and requirements to be followed during project implementation, including compensation, mitigation measures to restore incomes, institutional and monitoring arrangements, as well as budget.

In addition a Social Impact Assessment (SIA) including a Social Management Plan (SMP) has been prepared. Extensive consultations have been carried out with different stakeholders during the process of SIA. A detailed census survey will be carried out one year prior to the BRT operation to identify the affected bus operators (bus owners, drivers, conductors and route managers) whose livelihood will be affected due to the closure or rerouting of their bus routes to avoid competition with the BRT operations. A detailed mitigation plan will be developed based on the census survey of operators including incentives to join new system, leasing or buying existing licenses and buses, complementarity in operations and a labor redeployment services program will be offered to those who will lose their jobs.

Social Risks Mitigation measures include: 1) Change in infrastructure designs to minimize the effect of parking restriction for businesses , 2) Rerouting of heavy traffic from Segment 1 and the possibility of a dedicated trucks route to be explored during detailed designs, 3) a Gender Action Plan including measures to mitigate Gender Based Violence and to enhance women mobility and women employment within SMTA and the private companies involved in the BRT operation .

A Grievance Redress Mechanism will be designed and operationalized prior to the start of the project.

The bidding documents for all civil works contracts to be procured under this project will require the implementation of the World Bank Guidelines on Occupational Health and Safety (OHS) in order to minimize the risk to workers and affected communities during project construction.

Sindh Mass Transit Authority (SMTA) has been working with ADB preparing the Red corridor, and is also implementing the Orange Corridor (financed by GoS), and therefore has developed relevant technical and administrative capacity to manage such projects. However, the SMTA does not have previous experience working on projects financed by the World Bank and does not have inhouse capacity for safeguards management. Therefore, the SMTA is in the process of hiring a full time Environmental Specialist and Social Specialist and a Gender Specialist to help ensure the satisfactory environmental and social management of the proposed project, including close supervision of the implementation of the EMP, SMP during construction, operations and maintenance stages of the proposed project. All these specialists will receive extensive on the job-training by the World Bank team prior to start of the project and throughout the



lifetime of the project.

5. Identify the key stakeholders and describe the mechanisms for consultation and disclosure on safeguard policies, with an emphasis on potentially affected people.

The safeguards documents (EIA, SIA, CLRP) were disclosed on SMTA's website on April 3, 2019 and public consultations took place on 18, April 2019 in Karachi.

The primary stakeholders include the affected vendors, transportation users of the potential future Yellow Corridor services (including women, youth, and vulnerable groups including persons with disabilities); current public transportation providers (including bus owners, drivers and so on); NGOs; academics and researchers; and, concerned government departments and institutions. Extensive consultations have been carried out with different stakeholders as part of the SIA process through individual interviews, focused group discussions and public meetings. Consultations were done with Women and Transgender as part of the gender assessment that was carried out separately. The Consultations will continue during project implementation and start of the operation.

B. Disclosure Requirements

Environmental Assessment/Audit/Management Plan/Other

Date of receipt by the Bank 15-Mar-2019	Date of submission for disclosure 10-May-2019	For category A projects, date of distributing the Executive Summary of the EA to the Executive Directors
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"In country" Disclosure

Pakistan
03-Apr-2019

Comments
http://karachibr.tpk/smta_home.html

Resettlement Action Plan/Framework/Policy Process

Date of receipt by the Bank 04-Mar-2019	Date of submission for disclosure 10-May-2019
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"In country" Disclosure



Pakistan
03-Apr-2019

Comments

http://karachibr.tpk/smta_home.html

C. Compliance Monitoring Indicators at the Corporate Level (to be filled in when the ISDS is finalized by the project decision meeting)

OP/BP/GP 4.01 - Environment Assessment

Does the project require a stand-alone EA (including EMP) report?

Yes

If yes, then did the Regional Environment Unit or Practice Manager (PM) review and approve the EA report?

Yes

Are the cost and the accountabilities for the EMP incorporated in the credit/loan?

Yes

OP/BP 4.12 - Involuntary Resettlement

Has a resettlement plan/abbreviated plan/policy framework/process framework (as appropriate) been prepared?

Yes

If yes, then did the Regional unit responsible for safeguards or Practice Manager review the plan?

Yes

The World Bank Policy on Disclosure of Information

Have relevant safeguard policies documents been sent to the World Bank for disclosure?

Yes

Have relevant documents been disclosed in-country in a public place in a form and language that are understandable and accessible to project-affected groups and local NGOs?

Yes



All Safeguard Policies

Have satisfactory calendar, budget and clear institutional responsibilities been prepared for the implementation of measures related to safeguard policies?

Yes

Have costs related to safeguard policy measures been included in the project cost?

Yes

Does the Monitoring and Evaluation system of the project include the monitoring of safeguard impacts and measures related to safeguard policies?

Yes

Have satisfactory implementation arrangements been agreed with the borrower and the same been adequately reflected in the project legal documents?

Yes

CONTACT POINT

World Bank

Said Dahdah
Senior Transport Specialist

Hasan Afzal Zaidi
Senior Transport Specialist

Borrower/Client/Recipient

Ministry of Finance- Economic Affairs Division
Noor Ahmed
Secretary
secretary@ead.gov.pk

Implementing Agencies

Sindh Mass Transit Authority
Iqtidar Ahmed
Managing Director
director.infra.smta@gmail.com



FOR MORE INFORMATION CONTACT

The World Bank
1818 H Street, NW
Washington, D.C. 20433
Telephone: (202) 473-1000
Web: <http://www.worldbank.org/projects>

APPROVAL

Task Team Leader(s):	Said Dahdah Hasan Afzal Zaidi
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Approved By

Safeguards Advisor:		
Practice Manager/Manager:	Olivier Le Ber	14-May-2019
Country Director:	Melinda Good	15-May-2019