SECTOR ASSESSMENT (SUMMARY): TRANSPORT

Sector Road Map

1. Sector Performance, Problems, and Opportunities

1. Sector performance and problems. The transport system in Pakistan is in poor condition, with an estimated cost to the economy of 8.5% of gross domestic product (GDP).\(^1\) Upgrading of Pakistan’s transportation system is critical to export competitiveness and economic growth. Roads are the predominant mode of transport in Pakistan. In 2010, total inland traffic by road transport was estimated at 325 billion passenger-kilometers and by rail transport at 159 billion freight ton-kilometers, with the road transport sector accounting for over 92% of passenger and 96% of freight traffic.\(^2\)

2. Roads. Pakistan’s road network of 263,000 kilometers (km) consists of about 12,000 km of national highways and 93,000 km of provincial highways, with the remainder classified as either district or urban roads. The national highways (4.6% of the total road network) cater to 80% of commercial traffic.\(^3\) Despite this, currently only 56% of the national highway network is assessed as being in either good or fair condition.\(^4\) The road sector faces a number of challenges, including: (i) overloaded trucks that are typically old and technologically outdated; (ii) inadequate highway network infrastructure; (iii) inefficient transport operation and maintenance; and (iv) inconsistent policy and institutional development and capacity constraints.

3. Railways. Insufficient investment in upgrading rail infrastructure, rolling stock, signaling, and telecommunications has resulted in a significant decline in freight and passenger services. Over the last 5 years the number of daily passenger services has declined from 230 to 92, and the number of freight train services from 96 to 1. Falling revenues and increased operating costs have led to a deterioration in the financial position of Pakistan Railways, which may consequently find it difficult to respond to market demands. Institutional reforms—addressing fiscal, governance, and operational aspects, and involving the private sector—and adequate phased investment in infrastructure and institutional strengthening are required to prevent an even greater reduction in rail service.

4. Ports, inland waterways, and aviation. In Pakistan, there are five major international airports and three seaports that cater for passenger and freight movement. Port operational performance is improving, but further improvements are needed to ensure the medium- to long-term viability of the sector. Post-customs delays at ports and the lack of integrated services and logistical facilities to remove containers from ports are major impediments. In addition, the limited depth (10–12 meters) of the ports prevents their use by larger, more efficient ships. Inland waterway transport facilities have not been developed, but the potential to do so in the near future exists. Both aviation and port infrastructure requires upgrading.

5. Border crossing points. In 2014, Pakistan ranked 72nd out of 160 countries in terms of overall logistics performance and 58th in terms of overall customs performance.\(^5\) Pakistan has a 0.2% share of world trade. Investment in physical infrastructure at border crossing points, and

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\(^3\) National Highway Authority Statistics.


improvements to both customs procedures and to the enabling legal and regulatory framework, would benefit regional trade and boost Pakistan’s economy.

6. **Urban transport.** Travel between and within cities has grown with increased population and economic activity, and low-density, and unplanned urban sprawl. Transport systems in major cities have not kept pace with increasing demand, resulting in congestion, accidents and air pollution. In Lahore 13.5 million trips are undertaken daily, and in Karachi 20 million. The absence of efficient urban transit systems has increased reliance on private vehicles, with 60%–70% of the urban population now owning vehicles. Poor traffic management and lack of transport demand management and network integration are exacerbating the limited capacity of the largely unplanned urban roads network.6

7. **Need for a strategic plan and policy framework.** There is a need for a national transport plan and policy using an evidence-based planning approach to guide the long-term development of the transport sector, and to efficiently allocate scarce resources.

8. **Road maintenance.** A road maintenance account was established at the National Highway Authority (NHA) in 2003. The income derived from tolls, traffic fines and funds provided by the Government of Pakistan provides a relatively stable source of funding for road maintenance. This has enabled NHA to adequately plan and effectively prioritize maintenance needs, setting priorities according to road asset management system rankings. Expenditure on maintenance is about half that required to maintain roads at acceptable quality levels, however, and consideration should be given to increasing tolls, tolling additional roads, or imposing fuel levies in order to generate additional funding for maintenance. The maintenance of provincial roads has generally been inadequate and has not been addressed sustainably.

9. **Road safety.** Road safety is a serious issue in Pakistan. Poor safety design, poor vehicle regulation, and inadequate traffic enforcement and driver training all contribute to Pakistan’s poor safety record. In 2010 an estimated 30,130 persons were killed in road collisions.7 There is a need to adopt a national road safety strategy, with a defined action plan and clear targets, and to implement specific road safety measures. Further actions are needed to: (i) strengthen road safety management capacity and governance; (ii) develop a national traffic accident data collection system; (iii) enhance the capacity of traffic police to enforce traffic laws; (iv) bolster road safety engineering function (e.g. by introduction of a black-spot treatment program, and by assisting with road safety audits); (v) improve vehicle safety; (vi) improve the behavior of road users and implement national road safety awareness campaigns; and (vii) improve post-crash emergency response.

10. **Institutional constraints.** The capacity of federal and provincial agencies could be strengthened. Suboptimal contract management and governance-related challenges have led to delays in construction of road projects and to cost increases. A human resource development plan is needed for the transport sector, which identifies gaps between the current skills in transport agencies and future organizational needs, and proposes a set of measures designed to ensure that each transport agency is able to recruit and retain appropriately skilled staff.

6 More details on Asian Development Bank assistance in the urban transport sector are provided in para. 11 of the Sector Assessment (Summary): Water and Other Urban Infrastructure and Services (accessible from the list of linked documents in Appendix 2 of the Country Partnership Strategy main text).

2. Government’s Sector Strategy

11. **Strategic objectives and approach.** The government’s Vision 2025 includes transport and connectivity as one of the seven priorities to achieve high, sustained and inclusive growth. The government is currently updating its Medium Term Development Framework, which includes the transport sector. Previously, the government’s transport sector plan envisaged rehabilitation and upgrading of the existing network, selective investment in new roads to facilitate regional trade, enhanced private sector participation, and control of overloading.

12. Pakistan joined the Central Asian Regional Economic Cooperation (CAREC) program in 2010. The CAREC Transport and Trade Facilitation Strategy (TTFS) 2020 included an expanded CAREC transport network, with CAREC corridors 5 and 6 now routing through Pakistan. CAREC corridors 5 and 6 serve to link key domestic urban centers (e.g., Lahore and Islamabad) and provide linkage to neighboring countries in the north (Afghanistan, central Asian countries, and the Peoples Republic of China), and to Gwadar and Karachi ports in southern Pakistan. As part of the CAREC TTFS, the government is committed to increasing its assistance to provide a safe, affordable, and sustainable transport system in Pakistan.

13. A proposal for a Pakistan–China Economic Corridor was initiated by the new government in 2013 to promote an economic corridor along the link from Khunjab Pass (border with People’s Republic of China) to Gwadar Port in Balochistan. The initiative may include new and/or upgraded roads, railways, pipelines, and airports. This initiative and the focus of the Asian Development Bank (ADB) will be complementary.

14. An ambitious railway reform strategy has been prepared for the rail sector, with assistance from international financial institutions. However, full implementation of the proposed strategy is dependent on approval by the government.

3. ADB Sector Experience and Assistance Program

15. ADB’s assistance to Pakistan in the transport sector has been significant, totaling $3.37 billion. Since 2007, ADB has financed the upgrading of existing national highways and construction of 480 km of new motorways. ADB is also considering investing in improving border crossings. Prior to 2009, ADB had interventions in each province, including improvements to national and provincial highways, and rural roads. However, each project involved more than one executing agency, resulting in implementation difficulties. The experience and resulting lessons will be reflected in any new projects.

16. Despite ADB’s efforts and those of counterpart agencies, significant implementation challenges remain in terms of completing projects on schedule, and as budgeted. Efficient project implementation requires improvements to the procurement, safeguards and contract management performance of implementing agencies. A review of the effectiveness of ADB interventions in Pakistan noted that while some progress had been made in improving the function of transport corridors, NHA’s revenue remained insufficient, while road administrations (especially at the provincial level) lack asset management systems, sustainable means of

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11 Financed under Multitranche Financing Facility of the National Highway Development Sector Improvement Project, National Trade Corridor Highway Improvement Program, and Flood Emergency Reconstruction Project.
revenue generation, contract management skills, needs-based allocations of funds, a focus on maintenance, and a record of compliance with international safeguards practice.¹²

17. **Future priorities.** During 2015–2019, the goal of ADB’s transport strategy in Pakistan will be to support economic and social development by ensuring that transport infrastructure is accessible, safe, environmentally friendly, and affordable as proposed in ADB Sustainable Transport Initiative-Operational Plan.¹³ ADB support will focus on:

(i) **Road sector development.** ADB will prioritize improvement of regional connectivity, transport efficiency, and road safety, with particular attention to upgrading of CAREC corridors. ADB will continue to assist the construction or rehabilitation of national and provincial highways, and to strengthen institutions and build capacity of transport agencies in areas such as road safety, strategic planning, transport policy development, road asset management, safeguard compliance and procurement.

(ii) **Rail sector reform.** There is a need to encourage a switch to the use of rail for long distance freight, and ADB will promote implementation of reforms to Pakistan Railways to ensure the long-term sustainability of the rail sector.

(iii) **Urban transport.** ADB will seek to finance improvements to the public transport system in Karachi and other major cities. The focus will be on sustainable, resilient and low-carbon transport solutions. The possibility of using trust fund resources from the Global Environmental Facility and Urban Climate Change Resilience Trust Fund will be explored.

(iv) **Trade and border crossing.** ADB will continue to promote trade and economic development through investments in border crossing facilities and improvements in customs procedures designed to lower trade costs and improve transit efficiencies, and eventually to develop an integrated and coordinated border management regime such as a single window system.

(v) **Private sector participation and cofinancing.** ADB will encourage private sector participation in financing of transport infrastructure through policy dialogue, knowledge transfer, advisory services, capacity building exercises, and development of public–private partnership projects. In addition, ADB will explore cofinancing opportunities with other development partners active in Pakistan.

(vi) **Gender and inclusiveness.** ADB’s support to the transport sector will emphasize inclusiveness, seeking to develop a transport system that is safe, affordable, and accessible to all. Transport projects will consider the needs of women, including by (a) developing gender-responsive facilities, such as well-lit separate toilets at rest areas and community centers; (b) developing gender-responsive land acquisition and resettlement plans; and (c) encouraging women’s employment and capacity building in recruitment and human resource development policies.

(vii) **Climate change.** Transport projects have greenhouse gas emissions impacts during both construction and operation. ADB will assess the climate change impacts of its transport projects and seek to mitigate any negative impacts.

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PROBLEM TREE FOR THE TRANSPORT SECTOR

EFFECTS
- Reduced Economic Growth
- Lack of Competitiveness
- Negative Impact on Environment & Health

PROBLEM
- Inefficient transport system with poor level of service

CAUSES
- Inadequate infrastructure
- Inefficient transport operation and maintenance
- Policy and institutional development deficiencies

Underdeveloped transport assets
- 1. Untapped inland waterway potential
- 2. Aged and insufficient infrastructures in road and rail sector
- 3. Poor infrastructure and low quality of service in urban transport
- 4. Uneven quality of regional road network

Insufficient funding
- 1. Insufficient investment in new infrastructure and maintenance in roads sector
- 2. Lack of funding for Pakistan Railways to operate, maintain and improve existing rail network
- 3. Funding constraints holding back development of urban transport systems

Roads
- 1. Rapid motorization leading to increased congestion and safety issues
- 2. Poor enforcement resulting in encroachment, increased number of road collisions and vehicle overloading issues

Rail
- 1. Poor service quality and frequency in rail sector
- 2. Lack of private sector involvement / competition in rail sector leading to suboptimal outcomes for consumer

Other modes of transport
- 1. Lack of safe, reliable and affordable options in urban transport
- 2. Limited private sector involvement in port sector leading to inefficient operations

Road transport
- 1. Lack of comprehensive transport strategy and action plan
- 2. Inadequate institutional capacity
- 3. Poor coordination between agencies on road safety

Railway and inland waterways
- 1. Lack of formal government commitment to railway reform agenda road map
- 2. Lack of appropriate human resources policy in Pakistan Railway
- 3. Lack of institutional management structure to support integrated waterway policy and management

Regional cooperation and integration
- 1. Lack of consistent plan on regional cooperation
- 2. Poor coordination among border management agencies

Urban Transport
- 1. Lack of transport authority to organize, plan and manage competing modes
- 2. Lack of traffic demand management and parking policy
- 3. No incentive policy to promote green public transport in cities, limit vehicle emissions and congestion
## Sector Results Framework (Transport, 2015–2019)

<table>
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<tr>
<th>Country Sector Outcomes</th>
<th>Country Sector Outputs</th>
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<tr>
<td>Outcomes with ADB Contribution</td>
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<td>Outputs with ADB Contribution</td>
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<td>Increase in movement of people and goods within Pakistan in a more efficient, safe, and sustainable manner.</td>
<td>Rail passenger traffic increases by 2%–3% per annum during 2015–2018 (2014 baseline: 41 million passenger km).&lt;sup&gt;a&lt;/sup&gt;</td>
<td>Transport system expands, improves, and is better maintained.</td>
<td>300 km of national highways and 400 km of provincial highways improved with ADB financing by 2019, compared with 2013.</td>
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<td>Average travel time from Peshawar to Karachi reduced from 45 hours (2014) to 36 hours (2019).</td>
<td>Urban transport systems become more efficient and reliable.</td>
<td>512 km railway track between Lahore and Peshawar rehabilitated</td>
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<td>Rail freight traffic increases by 2%–3% per annum during 2015–2018 (2014 baseline: 374 ton-km).</td>
<td>The gap between unconstrained maintenance needs and actual maintenance expenditures reduced, from 36% in 2013 to 30% in 2018.</td>
<td>Border Services Improvement Project ($150 million)</td>
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<td>Households in Karachi with access to a safe, reliable and efficient mass transit system increases from 0% in 2014 to 10% in 2018.</td>
<td>Second mass transit corridor serving a population of 1 million (at least 30% of whom are women) is implemented by 2018, compared to a single corridor in 2013.</td>
<td>Provincial Roads (KP) ($50 million)</td>
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<td>Passenger traffic by road increases by 2%–3% per annum during 2012–2018 (baseline 2011: 322.7 billion passenger-km).&lt;sup&gt;b&lt;/sup&gt;</td>
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**ADB** = Asian Development Bank; **BRT** = bus rapid transit; **CAREC** = Central Asia Regional Economic Cooperation; **km** = kilometer; **KP** = Khyber Pakhtunkhwa; **MFF** = multi-tranche financing facility; **NTC** = National Trade Corridor; **NTCHIP** = National Trade Corridor Highway Investment Program; **T** = tranche; **TA** = technical assistance.


<sup>c</sup> Standby project in 2018.

Source: ADB estimates.