

## SECTOR ASSESSMENT (SUMMARY): TRANSPORT (ROAD TRANSPORT [NONURBAN])

### 1. Sector Performance, Problems, and Opportunities

1. The transport sector contributes 10% to Pakistan's gross domestic product and more than 6% to the country's overall employment.<sup>1</sup> Upgrading Pakistan's transport system is critical to both export competitiveness and economic growth. Roads are the predominant mode of transport in Pakistan, accounting for more than 92% of passenger and 96% of freight traffic in 2010; total inland traffic was estimated at 325 billion passenger-kilometers (km) by road, and 59 billion freight ton-km by rail.<sup>2</sup>

2. Pakistan's road network of 263,000 km consists of 12,500 km of national highways, 93,000 km of provincial highways, with the remainder classified as either district or urban roads. The national highway network, which is less than 5% of the total road network, caters to 80% of commercial traffic.<sup>3</sup> The National Highway Authority (NHA) is responsible for national highways, including access-controlled motorways and expressways, while provincial and district administrators are responsible for provincial highways and district roads. Despite the high reliance on road transport, the quality of the road infrastructure severely constrains capacity. Although the quality of the national highways has considerably improved because of continuous investments and better road asset management, the overall condition is wanting—only 50% of highways are assessed as being in good or fair condition.<sup>4</sup> The motorways are maintained much better—35% are in good condition and 65% in fair condition—thanks to access control of overloaded trucks, and nonmotorized and slow-moving traffic. The condition of the provincial highways is worse than that of the national highway network. Many are either permanently impassable or subject to closure during bad weather.

3. **Transport policy framework.** A national transport policy is a prerequisite for the effective development of a sustainable and cost-effective transport system. Recognizing this, the government developed a draft national transport policy in 2008 with the assistance of the Asian Development Bank (ADB), covering transport policy and governance; institutional development; policy implementation and management capabilities; and infrastructure financing, investment, and maintenance. This comprehensive national transport policy, which was supposed to guide the government as well as aid agencies, was however not endorsed by the highest authority and shelved. The Ministry of Planning, Development, and Reforms; Ministry of Communications (including NHA); Ministry of Railways; and Ministry of Ports and Shipping, among other relevant government ministries and agencies, revived their interest and advocated that the policy be updated and duly established as a foundation for the long-term sustainability of the transport sector. In November 2015, ADB approved capacity development technical assistance of \$15.4 million for the Enabling Economic Corridors through Sustainable Transport Sector Development as part of the Government of the United Kingdom's assistance through the Pakistan Economic Corridors Program.<sup>5</sup> This assistance will help develop a national transport policy and master plan.

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<sup>1</sup> Government of Pakistan, Ministry of Planning, Development and Reform. 2014. *Pakistan 2025 – One Nation. One Vision*. Islamabad. [http://www.mopdr.com/vision/uploads/vision/pakistan\\_vision2025.pdf](http://www.mopdr.com/vision/uploads/vision/pakistan_vision2025.pdf)

<sup>2</sup> World Bank. World Development Indicators database. <http://databank.worldbank.org/data/home.aspx> (accessed on 10 March 2014). Washington, DC.

<sup>3</sup> NHA statistics.

<sup>4</sup> NHA's annual maintenance plan for 2015–2016.

<sup>5</sup> ADB. 2015. *Technical Assistance to the Islamic Republic of Pakistan for Enabling Economic Corridors through Sustainable Transport Sector Development*. Manila.

4. **Sustainability of road network and road asset preservation.** Road investment and road maintenance are financed by different funding mechanisms. Road investment is mainly funded from the annual budget allocation to the federal Public Sector Development Program, while road maintenance is funded by a dedicated road maintenance fund outside the federal fiscal budget envelope, the use of which is earmarked only for road maintenance.

#### Road Expenditures

Item	Actual						
	FY2009	FY2010	FY2011	FY2012	FY2013	FY2014	FY2015
Construction (PSDP) (PRs billion)	32.3	44.7	28.3	56.5	50.7	57.6	111.5
Annual growth (%)	12.8	38.4	(36.6)	99.6	(10.3)	13.6	93.5
Maintenance (PRs billion)							
Toll revenue	6.5	8.3	10.4	12.4	12.8	14.0	16.0
Federal grants	0.9	1.0	1.1	1.2	1.4	1.5	1.6
Others (police fines, right-of-way revenue, weighbridges)	1.4	2.0	1.6	2.5	2.3	2.9	4.6
<b>Total (PRs billion)</b>	<b>8.8</b>	<b>11.3</b>	<b>13.1</b>	<b>16.1</b>	<b>16.5</b>	<b>18.4</b>	<b>22.2</b>
Annual growth (%)		28.3	15.9	22.9	2.5	11.5	20.6
Unconstrained maintenance requirement under HDM-4 (PRs billion)	15.8	19.0	25.1	28.6	28.0	40.4	67.9
Actual maintenance versus unconstrained requirement (%)	55.6	59.4	52.2	56.3	58.9	45.5	32.7

( ) = negative, FY = fiscal year, HDM-4 = Highway Development and Management Model-4, PSDP = Public Sector Development Program.

Source: National Highway Authority Road Asset Management System Report.

5. The maintenance resources generated through the road maintenance fund have been consistently lower than the unconstrained maintenance requirement calculated by RAMS through HDM-4 (55%–59% in 2009–2013 but abruptly plummeted to 46% in 2014 and 33% in 2015; see Table).<sup>6</sup> RAMS calculates the unconstrained maintenance requirement to upgrade all roads to the level of newly paved roads (international roughness index [IRI] of 2.0 m/km). Hence, the unconstrained requirement envisages an ideal situation with no resource constraints. Constrained by scarce national resources, NHA aims to maintain the roads at an average IRI of 3.5 m/km (current average is 4.0 m/km), implying the vehicle operating cost of road users to be kept 30%–40% higher than in the ideal situation (IRI of 2.0 m/km). It is a tradeoff between whether the federal government collects more taxes (or reprioritize fiscal resources) and spends them to maintain the roads at an IRI of 2.0 m/km or whether NHA maintains the roads at an IRI of 3.5 m/km with constrained resources while road users bear the cost in the form of higher vehicle operating costs.

6. **Road safety.** In 2016, driven by public pressure after a serious road crash that occurred in 2014, the government prepared a draft national road safety framework and action plan for national highways and motorways. Under ADB's capacity development technical assistance for the Enabling Economic Corridors through Sustainable Transport Sector Development, ADB is supporting the government to improve the safety of its road network through a holistic set of measures addressing (i) road safety management systems, (ii) road user behavior, (iii) infrastructure improvements, (iv) vehicle improvements, and (v) post-crash response (footnote 5). The consultant team mobilized in 2016 is helping the Ministry of Communications to improve and expand the national road safety framework and action plan for national highways and motorways to cover the entire road network in Pakistan as the National Road Safety Plan.

<sup>6</sup> The growing shortfall of maintenance fund since 2014 was caused not by the shrinkage of road revenue (which shows a consistent increase each year) but by steep hikes of unconstrained maintenance requirements that stemmed from heavy floods in 2010 and 2014 (many flood-damaged roads were left unattended despite NHA's effort for post-flood rehabilitation and degenerated into unmaintainable category of maintenance backlogs [IRI of 6.0–7.0 m/km]).

A road safety act will be developed and a national road safety body will be established to coordinate and monitor the implementation of the National Road Safety Plan.

7. **NHA business plan.** NHA was established under the NHA Act, 1991 to monitor the works and administration of national highways, motorways, expressways, and strategic roads. Its function is to plan, develop, operate, repair, and maintain roads entrusted to NHA by the government. NHA is the custodian of 39 national highways, motorways, expressways, and strategic roads, combining for a total length of 12,131 kilometers. Once the National Transport Policy sets the future direction of road network development, the vision and direction needs to be cascaded and transformed into a systematic road network development plan for national highways, motorways, and expressways in the form of the NHA business plan. The NHA business plan is being developed by NHA with the support of the World Bank, with initial internal consultations undertaken since September 2016.

8. Since NHA was established as a corporate entity, the government budgetary support for road investment has been in the form of government loans to NHA despite NHA's no debt serviceability with its meager revenues hardly covering road maintenance expenditures. The practice leads to severe distortion of NHA's financial statements, accumulation of unserviceable debts and accrued interests in the balance sheet, and huge net losses in the income statement every year because of accrual of interest. As of 30 June 2016, accumulated debt amounts to PRs1.2 trillion (\$12 billion) including accrued interest of PRs460 billion (\$4.6 billion). With these distorted financial statements, NHA cannot mobilize funds from capital markets to promote public-private partnership. To correcting the distortion, the government will consider (i) equitizing NHA's accumulated debt; (ii) revaluing NHA's road assets at current prices; and (iii) treating future government support to NHA for road investment either as government equity investment or as proper financing modality that NHA can absorb and reflect in its financial statements.

## 2. Government's Sector Strategies

9. **Strategic objectives and approach.** The government's Vision 2025 includes transport and connectivity as one of seven priorities to achieve high, sustained, and inclusive growth. The government is updating its medium-term development framework, which includes the transport sector. Previously, the government's plan for the transport sector envisaged rehabilitation and upgrades of the existing network, selective investment in new roads to facilitate regional trade, enhanced private sector participation, and control of overloading.<sup>7</sup>

10. Pakistan joined the Central Asia Regional Economic Cooperation (CAREC) Program in 2010. The CAREC Transport and Trade Facilitation Strategy 2020 included an expanded CAREC transport network, with CAREC corridors 5 and 6 now routing through Pakistan. CAREC corridors 5 and 6 link key domestic urban centers (e.g., Lahore and Islamabad) to each other, to neighboring countries in the north (Afghanistan, People's Republic of China [PRC], and Central Asian countries), and to Gwadar and Karachi ports in southern Pakistan. As part of the CAREC strategy, Pakistan is committed to upgrading assistance to provide a safe, affordable, and sustainable transport system.

11. A proposal for the China-Pakistan Economic Corridor (CPEC) was initiated in 2013 to promote development along the link from the Khunjab Pass (PRC border) to Gwadar port in

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<sup>7</sup> Government of Pakistan, Planning Commission. 2005. *Medium-Term Development Framework (MTDF) 2005-2010*. Islamabad.

Balochistan. The CPEC will expand and transform transport and energy infrastructure in Pakistan, allowing Pakistan to maximize its potential as a regional transport and trade hub and simultaneously enabling the PRC to integrate its western regions and neighboring countries into the Silk Road economic belt initiatives. The synergy between the CAREC corridors and the CPEC could enable Pakistan to play the role of a regional transport and trade hub.

### 3. ADB Sector Experience and Assistance Plan

12. ADB's assistance to Pakistan's road sector has been significant, amounting to more than \$4.8 billion.<sup>8</sup> Since 2005, ADB has financed upgrades to existing national highways as well as construction of new motorways totaling 480 km.<sup>9</sup> ADB is also considering investing in better border-crossing facilities at several points along the road and rail network. Prior to 2009, individual projects involved more than one executing agency, making projects difficult to implement. These experiences and lessons will be reflected in new ADB projects. The Pakistan country partnership strategy, 2015–2019 highlights the focus on regional connectivity in transport and energy through ADB support for (i) the extension of CAREC corridors to the ports of Gwadar and Karachi, (ii) the Turkmenistan–Afghanistan–Pakistan–India natural gas pipeline project, and (iii) transport and trade facilitation with the emphasis on development of economic corridors to expand economic opportunities for communities in surrounding areas.<sup>10</sup> For transport, ADB assistance was designed to improve regional connectivity and transport efficiency through physical investment and technical assistance.

13. Despite ADB's efforts and those of counterpart agencies, significant implementation challenges remain, such as completing projects on time and on budget. Efficient project implementation requires further improvements by implementing agencies in terms of managing procurement, safeguards, and contracts. A review of the effectiveness of ADB interventions in Pakistan noted that while some progress had been made in making transport corridors function better, NHA's revenue remained insufficient and road administrations (especially in provinces) lacked asset management systems, sustainable means of revenue generation, contract management skills, needs-based allocations of funds, focus on maintenance, and compliance with international practice on safeguards.<sup>11</sup>

14. During 2015–2019, ADB's transport strategy in Pakistan aims to support economic and social development by ensuring that transport infrastructure is accessible, safe, environmentally friendly, and affordable, as proposed in its Sustainable Transport Initiative Operational Plan.<sup>12</sup> In the road sector, ADB will focus on the improvement of regional connectivity, transport efficiency, and road safety, with particular attention on upgrading the CAREC corridors. ADB will continue to assist with the construction or rehabilitation of national and provincial highways, strengthening institutions, and building the capacity of transport agencies in areas such as road safety, strategic planning, transport policy development, road asset management, safeguard compliance, and procurement.

<sup>8</sup> ADB. 2016. *Member Fact Sheet: Pakistan*. Manila.

<sup>9</sup> ADB. 2007. *Report and Recommendation of the President to the Board of Directors on a Proposed Loan to the Islamic Republic of Pakistan for the National Trade Corridor Highway Investment Program*. Manila; and ADB. 2005. *Report and Recommendation of the President to the Board of Directors on a Proposed Loan to the Islamic Republic of Pakistan for the National Highway Development Sector Investment Program*. Manila.

<sup>10</sup> ADB. 2015. *Country Partnership Strategy: Pakistan, 2015–2019*. Manila.

<sup>11</sup> ADB. 2013. *Country Assistance Program Evaluation 2002–2012: Continuing Development Challenges*. Manila.

<sup>12</sup> ADB. 2010. *Sustainable Transport Initiative Operational Plan*. Manila.

**PROBLEM TREE**

