



## Philippines

## Transport Sector Assessment, Strategy, and Road Map

Asian Development Bank



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## **Currency Equivalents**

(as of 17 August 2012)

Currency Unit	=	peso (P)
P1.00	=	\$0.024
\$1.00	=	P41.97

## Abbreviations

ADB	-	Asian Development Bank		
ASR	-	assessment, strategy, and road map		
AusAID	-	Australian Agency for International Development		
CAPE	-	country assistance program evaluation		
DFID	-	Department for International Development of the United Kingdom		
DPWH	-	Department of Public Works and Highways		
GDP	-	gross domestic product		
JBIC	-	Japan Bank for International Cooperation		
JICA	-	Japan International Cooperation Agency		
LRT	-	light rail transit		
LRTA	-	Light Rail Transit Authority		
MCC	-	Millennium Challenge Corporation		
MRTC	-	Metro Rapid Transit Corporation		
MVUC	-	motor vehicle user's charge		
NAIA	-	Ninoy Aquino International Airport		
NTP	-	national transport plan		
PDP	-	Philippine Development Plan		
PNP	-	Philippine National Police		
PNR	-	Philippine National Railways		
PPA	-	Philippine Ports Authority		
PPP	-	public-private partnership		
ro-ro	-	roll-on roll-off ferry		
SRSF	-	Special Road Support Fund		

## Sector Assessment: Context and Strategic Issues

#### A. Introduction

1. This assessment, strategy, and road map (ASR) documents the current assessment by the Asian Development Bank (ADB) of the transport sector in the Philippines in relation to the government's strategic plans to strengthen policies, institutions, and investments in the sector. The ASR highlights sector performance, priority development constraints, government plans and strategy, past ADB support and experience, other development partners' support, and ADB's strategy for support.<sup>1</sup> The ASR is linked to, and informs, ADB's country partnership strategy for the Philippines. Both the ASR and the country partnership strategy for the Philippines target the period through 2016.

#### B. The Philippine Transport System

2. Transport is a key sector in the Philippine economy, linking population and economic centers across the islands. The transport system of the Philippines consists of road, water, air, and rail transport. Water transport plays an important role due to the archipelagic nature of the country, but road transport is by far the dominant subsector accounting for 98% of passenger traffic and 58% of cargo traffic. While the transport infrastructure has been developed and spread across the country (about 215,000 kilometers [km] of roads, 1,300 public and private ports, and 215 public and private airports), the level of service has not been sufficient due to the lack of sustainable financing. Improving transport infrastructure is critical for strengthening the investment climate and enhancing economic growth. The Philippines has seen modest improvement in the quality of its transport services, but a large part of the road network remains in poor condition and intermodal integration is generally weak. Poor sector governance also impedes efficient operation of the sector.<sup>2</sup>

3. **Roads.** As of 2011, the country's road system comprised about 215,000 km, of which about 15% were classified as national roads, thereby falling under the jurisdiction of the Department of Public Works and Highways (DPWH). The remaining 85% of the network is defined as local roads and falls under the jurisdiction of a variety of local government units. As of November 2011, 79% of national roads and only 18% of local roads were paved with either asphalt or concrete. The percentage of national roads that are paved has risen only slowly from 71% in 2001 and remains well below the government's original target of 95% by 2010.

<sup>&</sup>lt;sup>1</sup> The assessment has drawn on the following reports: National Economic and Development Agency. 2011. *Philippine Development Plan 2011–2016*. Manila; World Bank. 2010. *Transport for Growth and Integration*. Discussion Note No. 8. Manila; Australian Agency for International Development. 2010. *RA 008-02: Formulating a National Transport Plan*. Manila; and World Bank. 2009. *Philippines: Transport for Growth*. Washington, DC.

<sup>&</sup>lt;sup>2</sup> V. Dato, et al. 2010. Philippines Discussion Note No. 8: Transport for Growth and Integration. Manila: The World Bank.

4. Of the 31,400 km of national roads in the system, only about 45% (14,200 km) were assessed as being in good or fair condition in November 2011. This figure is lower than the percentages in 1982 (about 52%) and 2001 (about 47%). For local roads, the 2009 figure was much lower, at about 20% (about 35,300 km of 176,300 km). Annual investment in the road system has remained at about 0.6% of gross domestic product (GDP), which is much lower than the comparable figure for most other countries in Southeast Asia. As a result, efforts to upgrade or expand the network have been limited.

5. The extent of the road network in the Philippines, when measured in terms of road km per square km, road km per capita, and road km per dollar of GDP per capita, is comparable with or better than many neighboring developing member countries. However, when the quality of the road system is considered—both in terms of the percentage of paved roads and the percentage of roads in good or fair condition—the Philippines lags well behind nearly all of its regional neighbors and competitors.

6. The major cause of the overall low quality of the road network is poor and inadequate maintenance. This is the result of (i) insufficient financial resources being made available for maintenance, and (ii) inadequate institutional capacity of agencies responsible for road maintenance. The high prevalence of overloading of trucks also contributes to the low quality of the network. Axle-load surveys conducted by the DPWH in 2005 showed that 11%–12% of all trucks were overloaded. Lax enforcement of axle-load regulations compounds this problem. In addition to the low quality of the road network, the poor state of repair of much of the vehicle fleet and inadequate enforcement of traffic regulations are also major contributors to the unsatisfactory status of road transport in the Philippines.

7. The poor quality of the road network is a contributing factor to the rising number of road accidents. There were 14,794 recorded road accidents in 2008, a 28% increase from 2007. Deaths from road accidents in the first half of 2009 reached 624, which was 9% more than in the equivalent period in 2008. These figures may underestimate the severity of the road accident problem, because in counting road accident deaths the Philippines uses a definition of death as occurring within 24 hours of a road accident, whereas the internationally accepted definition is death occurring within 30 days of an accident. In addition, it is estimated that only about 10% of road accidents are officially reported, although these are likely to include many of the most serious accidents. In 2005, the national cost of road accidents in the Philippines was estimated at \$1.9 billion, equivalent to 2.8% of the country's GDP. According to the Department of Health, in 2008 road accidents became the fourth leading cause of death in the Philippines.

8. The government has developed a network of tolled expressways in central Luzon to address transport constraints on economic development by (i) linking the major economic and transport centers in Metro Manila and adjacent provinces, from Tarlac in the north to Batangas in the south; and (ii) facilitating multimodal transport. The expressway network, developed through public–private partnerships (PPPs) and with bilateral development assistance, links industrial parks and special economic zones, the ports at Subic and Batangas, and Diosdado Macapagal International Airport in Pampanga. While the development of this network has reduced travel times significantly, additional efforts to increase port capacity and improve management are necessary to realize fully the benefits of an integrated multimodal transport system.

9. Water transport. Interisland water transport is a very important subsector of the national transport system. There are about 1,300 ports, of which about 1,000 are government-owned and the rest are privately owned and managed. Of the government-owned ports, about 140 fall under the jurisdiction of the Philippine Ports Authority (PPA) and the Cebu Ports Authority; the remainder are the responsibility of other government agencies or local government units. International cargo and container traffic has grown steadily in recent years, supported by significant investments in the port of Batangas by the PPA and in the port of Subic by the Subic Bay Metropolitan Authority. Despite growth in both the economy and the population, passenger traffic on domestic interisland shipping services fell by about 13% between 2003 and 2008. Freight traffic on interisland shipping services has not grown in line with the economy and now stands at about the same volume as in the mid-1990s.

10. Interisland shipping continues to suffer from a poor reputation for safety, with an average of 160 maritime accidents annually. The causes of maritime accidents include human error; natural causes, such as typhoons, bad weather, and rough seas; lack of vessel traffic management; lack of navigational aids; and poor ship maintenance. Natural causes were the main causes of maritime accidents, comprising 36% of the total incidents recorded. Accidents caused by human error were also a major contributor, comprising 24% of all recorded accidents. To address this deficiency, the Maritime Industry Authority is embarking on a number of safety programs during 2012–2013, including (i) a vessel retirement and replacement program; (ii) nationwide mobile registration, licensing, and franchising of motor *bancas* (wooden double outriggers); (iii) nationwide revalidation of ships' documentation; (iv) pilot implementation of an audit-based ship inspection system; (v) enhancement of competence of technical personnel; (vi) implementation of crew documents.

11. In recent years, there has been significant development of roll-on roll-off (ro-ro) ferry services, which are aimed at providing an alternative to traditional long-distance interisland shipping services. The ro-ro system allows vehicles to drive onto and off ro-ro ferries without loading or offloading of cargo. Because this eliminates cargo-handling labor and equipment, and reduces the amount of time cargo is required to be in port, reductions in sea transport costs can be considerable. In 2003, the Government of the Philippines issued a policy to promote ro-ro. This was manifested in the opening of the government's Strong Republic Nautical Highway Program. The Strong Republic Nautical Highway is composed of three major trunk lines: the western, eastern, and central nautical highways. These three major lines consist of 12 main routes served by different shipping operators. This program has not only linked the country's major island groups of Luzon, Visayas, and Mindanao, but it has also had positive effects on the economies of the smaller islands along the major routes. The ro-ro policy has had a major positive impact, derived from the significant reduction in transport costs. The principal sources of savings have been the elimination of cargo handling charges and wharfage fees. As a result of the opening of the nautical highways, (i) goods are being shipped more efficiently, (ii) transport costs have been reduced, (iii) new interisland and regional links are being created, (iv) regional markets have expanded, (v) tourism has benefited, (vi) local area development is being accelerated, (vii) logistics practices are changing, and (viii) the domestic shipping industry is restructuring and becoming more competitive.3 The growth of ro-ro services may have contributed to the decline in both freight and passenger traffic on conventional interisland shipping services. It is estimated that the use of ro-ro offers a saving of about 12 hours in travel time between Mindanao and Luzon, and a reduction of about 30% in the cost of freight transport and 40% in the cost of passenger transport.

12. Port facilities to accommodate ro-ro vessels have been built or rehabilitated under the program, with 42 ro-ro vessels operating on routes between these ports. However, these 42 vessels are run by some 25 shipping operators, which may suggest that the structure of the ro-ro subsector is fragmented. While ro-ro facilities are already in place in some ports, prioritization of the development, construction, and rehabilitation of ro-ro ports is hampered by the need for massive capital outlays. Therefore, the PPA is working to facilitate private sector participation in the provision of passenger terminal buildings and ro-ro terminal services so that these needs can be met without creating an excessive burden on government resources. The PPA is fast-tracking the finalization of policies that allow private sector participation in the provision of these buildings and services.

13. Air transport. There are 215 airports in the Philippines, of which 84 are government-owned and controlled and the rest are privately owned and operated. Of the government-controlled airports, 10 are designated as international airports, 15 are Principal Class 1 airports, 19 are Principal Class 2 airports, and 40 are community airports. The busiest airport in the Philippines is Ninoy Aquino International Airport (NAIA) in Manila, which handled 435,486 aircraft movements and an estimated 29.6 million

<sup>&</sup>lt;sup>3</sup> ADB. 2010. Bridges across Oceans: Initial Impact Assessment of the Philippines Nautical Highway System and Lessons for Southeast Asia. Manila.

passengers in 2011. Mactan International Airport in Cebu is the second-busiest airport in the country with 82,554 aircraft movements and 6.3 million passengers in 2011. Domestic passenger traffic at NAIA has been growing at almost 10% per annum since 2000. The growth of domestic freight traffic has been much less at about 2.4% per annum. Given the growth of both international and domestic air traffic through NAIA in recent years, serious capacity constraints are likely to emerge before long. To address this, the government has plans to further develop Diosdado Macapagal International Airport, formerly Clark International Airport, as an alternative international gateway serving central Luzon. These plans will need to be closely coordinated with those for the development of NAIA, and they will need to include consideration of appropriate land transport connections between Diosdado Macapagal International Airport and Metro Manila.

14. The government has intensified efforts under way since 1992 to liberalize air transport. In particular, it has been promoting the development of secondary international gateways through negotiating bilateral "pocket open skies" agreements pertaining to secondary airports in the Philippines. These agreements now cover all secondary international gateways in the country and have led to substantial increases in travel through these airports.<sup>4</sup>

15. **Urban transport.** The Philippines is experiencing rapid urbanization, and by 2030, about 77% of the population will live in urban areas. There are 120 cities in the country, including 16 in Metro Manila, which is the only metropolitan area in the Philippines. Other major urban agglomerations exist, including in Davao, Cebu, and Iloilo, but they lack formal metropolitan organizations. Transport systems in these cities are almost entirely road based, with the exception of Metro Manila. Transport services consist mainly of *jeepneys* (public utility vehicles), taxis, tricycles, and pedicabs that are privately owned and operated. In 2010, taxis comprised 667,424 (35%) of the 1.9 million vehicles in Metro Manila, and half of the 6.6 million vehicles in the country were motorcycles. Motorcycle users are vulnerable to road crashes and contribute significantly to traffic congestion.

16. In Metro Manila, the urban transport infrastructure consists of a network of roads and railways. A functional classification system of roads has been established with the arterial roads forming a radial circumferential pattern of 10 radial roads and 5 circumferential roads. Two circumferential roads are incomplete and a sixth is in the planning stage. While some of the principal road corridors in Metro Manila have high capacities, traffic volumes are also extremely high. As a result, the movement of people, goods, and services is becoming increasingly difficult. Although restrictions on vehicle usage are in place, their effectiveness is decreasing as rates of motorization increase; consequently, congestion in Metro Manila is increasing rapidly and is estimated to cause economic losses equivalent to about 4.6% of GDP. While congestion in urban areas outside of Metro Manila is less severe, increasing urban populations combined with higher rates of motorization suggest that traffic congestion in those urban areas will worsen in the near future.

17. As in other urban areas, road-based public transport in Metro Manila is provided entirely by the private sector. There are an estimated 433 bus companies operating 805 routes. The majority of bus companies own more than 10 units, with only 7 bus companies owning 100 units or more. *Jeepneys* serve 785 routes in Metro Manila, with many *jeepney* operators owning only one unit. In addition to *jeepneys*, air-conditioned Asian utility vehicles provide express services in several areas of Metro Manila, together with taxis and localized modes of transport such as tricycles and pedicabs. Tricycles and pedicabs are restricted to serving local areas and provide a feeder service to the larger-scale public transport services.

18. **Railways.** The railway system consists of light rail transit (LRT) lines in Metro Manila and heavy rail lines in Luzon. The three LRT lines commenced operations in 1984, 1999, and 2003. Two lines are owned and operated by a government-owned corporation, the Light Rail Transit Authority

<sup>&</sup>lt;sup>4</sup> R. Fabella, et al. 2011. Built on Dreams, Grounded in Reality: Economic Policy Reform in the Philippines. Manila: The Asia Foundation.

(LRTA), while the third was financed and constructed by a private corporation, the Metro Rapid Transit Corporation (MRTC), and is operated by the government under a build–lease–transfer agreement. The lines operated by the LRTA carry about 579,000 passengers each day, while the MRTC line carries more than 400,000 passengers daily. Fare structures are distance based, and fare levels are low relative to comparable systems elsewhere in the region. One reason that fares can be set at these low levels is that the debt of the government-owned and controlled corporations is serviced by annual allocations in the government budget, which has the effect of subsidizing the operations of the light rail systems. Overall load factors on the LRT lines exceed 60% and overcrowding is common at peak periods. The government is reported to be considering transferring the operations of the MRTC to the LRTA. A further LRT line has been approved for development and others are under consideration for development through PPP.

19. A limited number of heavy rail commuter services are operated by the Philippine National Railways (PNR), serving areas to the south of Metro Manila. The PNR carried 9.1 million passengers in 2010 and 15.4 million in 2011. The increase in ridership is attributed to the completion of the rehabilitation of the Caloocan to Alabang section of the commuter line and the introduction of new rolling stock, both financed by bilateral development assistance.

20. Other than these commuter services and some other services linking towns in the Bicol region, the heavy rail lines in the Philippines have been essentially nonoperational for several years. The Southern Line linking Manila to the Bicol region has not operated since it sustained typhoon damage in 2006, although the line has now been restored and trial services have been operated between Naga City and Metro Manila. Before its closure in 2006, passenger traffic on this line had been declining steadily and freight traffic was negligible. The Northern Line has been nonoperational for more than 25 years, although there are plans to reopen it under the Northrail Project.

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

21. Key sector challenges. The Philippines' archipelagic setting and the increasing urbanization of its population make accessibility between, and mobility within, the islands the primary goals of the transport system. Efficient transport is critical for strengthening the country's investment climate and enhancing economic growth. The islands need to be linked by a seamless transport network to enable the cost-efficient movement of goods and services within the country and to facilitate inclusive economic growth. The same principle applies to enhancing economic growth in the subregion in which the Philippines is located—archipelagic Southeast Asia.<sup>5</sup> Stimulating broad-based economic growth, reducing poverty, and improving the welfare of people inhabiting the subregion's numerous remote islands is a major challenge, the solution to which starts with improved connectivity. The Philippines' nautical highways model, which is working toward establishing seamless connectivity from north to south across seas and islands, is seen as having great potential for the subregion. Linking islands comprising the subregion's constituent countries in such a network would stimulate international trade between neighboring islands, promote economic activity, and reduce transaction costs significantly (footnote 3). In addition to linking the islands, the levels of service of urban transport systems on the more populous islands need to be addressed immediately to improve productivity and meet the demands of an increasingly urbanized economy.

22. One indicator of the extent of the challenges facing the transport sector is the country's ranking in the World Economic Forum's Global Competitiveness Report 2012–2013. The Philippines was ranked 87th of the 144 countries surveyed for quality of roads, 94th for railroads, 112th for airports, and 120th

This subregion comprises Brunei Darussalam, Indonesia, Malaysia, Papua New Guinea, the Philippines, Singapore, and Timor-Leste.

for port infrastructure.<sup>6</sup> Poor performance in the transport sector has reinforced the perception that the Philippines is not a good investment location due to the loss of economic opportunities, increased pollution, and decreased productivity caused by poor transport infrastructure.

23. The main challenges faced by the transport sector, many of which are interrelated, include (i) the poor quality of the road network, (ii) poor intermodal integration, (iii) weak sector governance and institutional capacity, (iv) lack of quality urban transport systems, and (v) limited private investment in transport infrastructure. While poor connectivity arising from deficiencies in water and air transport systems has historically constrained transport and economic development in the Philippines, substantial progress is now being made in these areas through market liberalization, development of the Strong Republic Nautical Highways Program, and the establishment of open skies agreements for the development of secondary airports. Improving sustainable financing, supporting infrastructure development, and quality control), and supporting private sector participation remain the keys to strengthening the transport sector. A problem tree for the Philippine transport sector is in the Appendix.

24. **Road network quality.** Although roads are used to transport the majority of passengers and freight in the Philippines, much of the network is of poor quality. This results in high transport costs for road users. An assessment by *Bantay Lansangan* (Road Watch), a road stakeholder partnership, showed that in 2007, the average road user cost was P21.17 per vehicle-km—41% more than the estimated P15.17 per vehicle-km cost of operating in optimum conditions. In part, the poor quality of the national road network can be attributed to the fiscal constraints faced by the Philippines in recent years, which resulted in a shortage of funding for the transport sector. However, the share of public expenditures on transport infrastructure allocated to maintenance declined between 2000 and 2006, when only 19.9% of total public expenditure on transport went to operation and maintenance.

25. The availability of resources for road maintenance received a significant boost in 2001 with the introduction of a motor vehicle user's charge to raise additional, earmarked resources for road maintenance, safety, and vehicle pollution control. While annual funding for road maintenance from the Special Road Support Fund, into which the revenues of the user's charge were paid, rose rapidly following the introduction of the scheme, the general appropriations for road maintenance from the government budget fell by an almost equal amount, so there was little overall increase in the funding available for maintenance. This situation is being addressed and general appropriations for road maintenance have been increasing since 2007, when they were reintroduced. However, there is still a funding gap for road maintenance, and continuing capital expenditure on the road system means that the demands for maintenance expenditures are increasing all the time.

26. In addition to financial constraints, weak sector governance and limited implementation capacity are also significant factors that contribute to the poor quality of the road system. Although the DPWH received a substantial increase in its budget in 2007, it only managed to disburse 66% of available funds. In addition, expenditures have not necessarily been well prioritized. For example, although the Special Road Support Fund has collected about P56.5 billion from motor vehicle user's charges since 2001, only 38% of these funds have been spent on prioritized projects, while 25%–30% of annual routine maintenance expenditure has been spent on roadside cleaning and beautification projects designed mainly to generate employment rather than to maintain or improve the quality of the national road network.

27. The maintenance of local roads has suffered because of the generally inadequate financial and technical capacities of most local government units. One result is that many roads that have primarily local functions have been converted, through legislation, to national roads to tap the

<sup>&</sup>lt;sup>6</sup> World Economic Forum. 2012. *The Global Competitiveness Report, 2012–2013*. Geneva.

DPWH maintenance budget. This not only increases the pressure on the financial and technical resources available to the DPWH, but it also distorts the planning and budgeting process for the overall road network.

28. Intermodal integration. While roads, ports, and airports have been developed throughout the Philippines and many journeys require the use of more than one mode of transport, coordination among the agencies responsible for transport infrastructure is generally very limited. In addition, coordination between the transport sector agencies and the agencies responsible for economic development is poor. As a result, planning for the development of infrastructure for individual transport modes is not linked with planning for other transport modes or potential growth sectors such as manufacturing, agriculture, and tourism. This lack of intermodal planning has often resulted in inadequate consideration being given to the optimum solution to meet specific transport needs. For example, funds used to invest in new ports and airports to address perceived transport limitations might have been used more efficiently to improve road connectivity to existing ports, ro-ro facilities, or airports. The lack of intermodal planning, and consequent lack of intermodal integration, in part reflects the weak institutional capacity for planning in sector agencies.

29. **Governance and institutional capacity.** The capacity of transport agencies to undertake procurement, financial management, internal audit, and quality control continues to be weak. As mentioned in para. 26, in 2007, the DPWH—one of the main agencies active in the transport sector—only managed to disburse 66% of its available budget, despite extensive demands on that budget in terms of proposed capital and recurrent expenditures. This was due to deficiencies in financial management and procurement procedures. A survey of more than 2,800 DPWH projects in 2006 showed that 353 (12.5%) had major defects. While steps have been taken to improve project supervision, the overall quality of projects is still poor. In addition, as reported by *Bantay Lansangan*, a road stakeholder partnership, there is a common perception that procurement procedures in the DPWH suffer from a lack of transparency and widespread corruption.

30. Technical capacity in planning, intermodal integration, project appraisal, and monitoring is also insufficient in sector agencies. Although the DPWH is now developing information technology enabled planning and programming systems with the support of ADB and the World Bank, it has not yet been able to take full advantage of them. The technical and financial capacity of the local government units responsible for the development and management of the local road network and other components of the country's transport infrastructure is generally regarded as inadequate.

31. As mentioned in para. 28, coordination between the transport agencies and with the agencies responsible for economic sectors is generally lacking. In addition, the links between plans prepared by the DPWH and the Department of Transportation and Communications and regional development plans are also generally weak. This lack of planning and implementation capacity in the main sector agencies and the local government units can be compounded by the effects of local political pressures that lead to the inclusion in national or local transport plans of projects whose contribution to the country's overall transport or economic development strategy may not have been validated. Political pressures of this type lead to the identification of investment projects becoming politicized and nontransparent, which can undermine the integrity of the design, procurement, and implementation processes. In addition, while funding for the capital investment in such projects may come from discretionary sources within the national budget, funding for subsequent operation and maintenance is generally not forthcoming. This places added burdens on the agencies responsible for the additional infrastructure. The distortion of the functional classification system for roads, through the redesignation of local roads as national roads to enable the DPWH to take over responsibility for maintenance, is largely a consequence of this.

32. While the Philippines has a wide range of generally well-developed regulations governing the transport sector, implementation of these regulations is often weak, which significantly limits the intended positive impact of these regulations on performance. Within the port, aviation, and rail

subsectors, the PPA, the PNR, the Civil Aviation Authority, and the LRTA have responsibility both for operations and regulation. Given that in the port and aviation subsectors there are publicly owned operators that are in competition with private sector ones, there is significant potential for conflicts of interest within the sector agencies and discrimination against private sector operations. Although proposals have been made for institutional reforms in these subsectors to separate the regulatory powers of the agencies from their operational responsibilities, no progress has been made.

33. Urban transport. Throughout the Philippines, urban public transport is dominated by roadbased modes such as *jeepneys*, Asian utility vehicles, taxis, tricycles, and pedicabs, some of which provide door-to-door service. Many urban road networks are inadequate and poorly maintained. Urban transport planning and traffic management are insufficient and ineffective, and traffic control devices, such as traffic signs, signals, and road markings, often do not conform to official standards or meet needs. Buses form a major element of the urban transport system in Metro Manila but not in other urban centers, while LRT is confined to Metro Manila and is heavily subsidized. Franchising procedures for road-based urban transport are often ineffective and enforcement of regulations is lax. All of these factors contribute to increasing levels of traffic congestion in urban areas, particularly around transit terminals and public markets. This in turn results in longer travel times, loss of economic opportunities and productivity, and increasing air pollution which has become a serious problem in many large urban areas.

34. With rapid urbanization expected to continue in the Philippines, urban transport infrastructure will be put under increasing pressure, thereby posing a major risk of further deterioration in the mobility of urban populations. The planning and development of new public transport terminals that integrate different modes of public transport would help to mitigate many of the problems currently associated with urban transport, thereby reducing the costs of urban mobility and improving the economic productivity and competitiveness of urban areas.

35. **Private sector provision of infrastructure.** While the provision of transport services, particularly in the road and aviation subsectors, is dominated by the private sector; the role of the private sector in providing transport infrastructure has been inconsistent. A build–operate–transfer law has been in place in the Philippines since 1990. During 1998–2007, private sector investment in transport infrastructure was equivalent to about 1.9% of GDP—higher than the level of public sector investment in transport infrastructure has been declining both in terms of monetary value and as a percentage of GDP. Private sector investments have also been made in rail and aviation. The private sector has become increasingly important in promoting transport sector policy reforms; for example, private sector involvement was instrumental in bringing about the necessary changes in policy to support the development of the ro-ro system through the Strong Republic Nautical Highway Program and the establishment of open skies agreements for the development of secondary airports into international gateways.

36. While private sector investment in transport infrastructure has been significant, only a few of the transport projects were developed using an open, competitive bidding process aimed at securing funding for the projects within a clearly prioritized transport investment program. Most successful projects have been the result of unsolicited proposals from potential investors to form PPPs with government corporations mandated to develop and operate transport infrastructure. In part, this reflects the lack of capacity within sector agencies for project planning and preparation. However, it also reflects a lack of clear principles and rules for the development of such partnerships. One consequence of this reliance on unsolicited proposals is that project proposals may not be properly assessed by the public sector parties receiving the proposal, and this in turn may result in suboptimal allocation of project risks being accepted by the government side of the partnership. An extreme example of this is the Metro Rail Transit Project (LRT 3), for which the government appears to be responsible for virtually all of the demand, commercial, performance, and financial risks, in addition to the political and regulatory risk.

## II Sector Strategy

#### A. Government Sector Strategy and Plan

37. The primary objective of the Philippine Development Plan 2011–2016 (PDP) is the pursuit of inclusive economic growth, which is defined as "sustained growth that creates jobs, draws the majority into the economic and social mainstream, and continuously reduces mass poverty."<sup>7</sup> The PDP recognizes that inadequate infrastructure and the resulting poor logistics network are critical constraints to investment and growth. It also recognizes that this inadequacy in both the quantity and quality of infrastructure is the result of the low level of public and private sector investment which is inadequate for the requirements of an expanding economy and a growing population. In addition, inequitable access to basic infrastructure services has acted as an obstacle to poverty reduction and inclusive growth by limiting the opportunities for economic and social advancement of marginalized groups throughout the country.

38. The PDP sets five objectives for infrastructure development, including the transport sector: (i) optimize resources and investments, (ii) attract investments to infrastructure, (iii) foster transparency and accountability in infrastructure development, (iv) adapt to climate change and mitigate the impacts of natural disasters, and (v) provide productive employment opportunities.

39. To optimize resources and investments, the PDP calls for improved project planning and development, and implementation and synchronization of planning and budgeting. It also recognizes the need for the coordination and integration of infrastructure initiatives at all levels of government. To attract investments in infrastructure, the PDP calls for an improved institutional and regulatory environment for the infrastructure sector, including the separation of the operational and regulatory functions of sector agencies, and for the encouragement of PPPs through improving the procedures and processes for project approval and implementation.

40. To foster transparency and accountability, stakeholder participation will be encouraged in governance, monitoring, and provision of feedback on infrastructure development. In relation to climate change adaptation and mitigation of natural disasters, the PDP calls for these issues to be institutionalized in infrastructure development through their incorporation in plans and designs. With respect to providing productive employment opportunities to facilitate inclusive growth, the PDP calls for the adoption of labor-intensive approaches where they are most appropriate. The PDP envisions that achieving these objectives will result in "a safe, secure, efficient, viable, competitive, dependable, integrated, environmentally sustainable and people-oriented Philippine transportation system." To achieve this, the PDP sets out a strategy containing the following four elements:

41. **Develop an integrated and coordinated transport network.** The first element of the government's strategy for developing the transport sector is to pursue the development of an integrated and coordinated transport network. The starting point will be the adoption of a comprehensive

<sup>&</sup>lt;sup>7</sup> Government of the Philippines. 2011. *Philippine Development Plan 2011–2016*. Manila.

long-term national transport plan (NTP) to guide the restructuring of the national transport system. By clearly laying out the government's policies in relation to all aspects of sector development, the plan would reduce uncertainty about government decisions and lend predictability and consistency, thereby enhancing accountability. The NTP will encourage the implementation of PPP projects by establishing clear policies on risk allocation and clarifying the roles of the private sector and government agencies in the operation and management of transport infrastructure. Likewise, it will address the relative roles of national and local government entities in the development and management of transport infrastructure. Linkages between the planning and budgeting processes will be strengthened through the NTP to ensure that resources are allocated most effectively within the transport sector.

42. **Rationalize the functions of transport agencies.** The second element of the strategy is the rationalization of the overlapping and conflicting functions of transport and other concerned agencies. In particular, the functions of the organizations responsible for ports and rail and air transport will be restructured and their current regulatory responsibilities will be transferred to a separate, independent regulator.

43. Ensure transport safety and security. The third element of the strategy is to improve compliance with safety and security standards, and to strengthen their implementation and enforcement for each mode of transport in line with international best practice.

44. **Promote the development of impoverished and conflict-affected areas.** The final element of the strategy relates to the need to improve transport networks in underdeveloped regions and areas affected by conflict. The aim is to open up these areas to greater economic opportunities and bring their populations into the mainstream of economic development, thereby enhancing their prospects for inclusive economic growth.

45. In addition to the PDP, the government established the National Environmentally Sustainable Transport Strategy in 2011 through Presidential Administrative Order No. 254, with the Department of Transportation and Communications and the Department of Environment and Natural Resources responsible for implementation.

#### B. ADB Sector Support and Experience

46. While ADB has been engaged in regular policy dialogue with the government on the development of the transport sector, direct operational activities in the sector were limited for several years preceding 2008. The country assistance program evaluation (CAPE) for the Philippines,<sup>8</sup> prepared in 2008 and covering the period 2003–2007, identified only two loan projects that were under implementation during that period: the Sixth Road Project<sup>9</sup> and the Third Airports Development Project.<sup>10</sup> In addition, nonsovereign support was given for a PPP to develop the North Luzon Expressway.<sup>11</sup>

<sup>&</sup>lt;sup>8</sup> ADB. 2008. Country Assistance Program Evaluation for the Philippines: Increasing Strategic Focus for Better Results. Manila.

<sup>&</sup>lt;sup>9</sup> ADB. 1996. Report and Recommendation of the President to the Board of Directors: Proposed Loan to the Republic of Philippines for the Sixth Road Project. Manila (Loan 1473-PHI).

<sup>&</sup>lt;sup>10</sup> ADB. 1997. Report and Recommendation of the President to the Board of Directors: Proposed Loan to the Republic of Philippines for the Third Airports Development Project (Southern Philippines). Manila (Loan 1536-PHI).

<sup>&</sup>lt;sup>11</sup> ADB. 1996. Report and Recommendation of the President to the Board of Directors: Proposed Loan to the Republic of Philippines for the North Luzon Expressway Rehabilitation and Expansion. Manila (Loan 7162-PHI).

47. The implementation of the Sixth Road Project was adversely affected by quality-at-entry issues associated with the lack of a clear land acquisition and resettlement policy and problems relating to subproject selection. Nevertheless, 80% of the project objectives were achieved and the project was rated *successful.*<sup>12</sup>

48. Implementation of the Third Airports Development Project was terminated in 2005 and the balance of the loan was cancelled. The termination was the result of the very poor implementation performance resulting from the slow progress of land acquisition and resettlement, severe delays in the recruitment of consultants, and significant issues relating to the procurement of civil works and equipment. None of the originally planned outputs was achieved and the project was rated *unsuccessful*.<sup>13</sup>

49. Overall, the CAPE rated ADB's assistance to the transport sector *relevant*, because support was consistent with government and ADB strategies for developing provincial and regional transport infrastructure; but in terms of its achievements the CAPE rated ADB's assistance to the transport sector *partly successful*.

50. The approval in 2008 of technical assistance for the preparation of the Road Sector Improvement Project<sup>14</sup> marked the start of ADB's operational reengagement in the transport sector in the Philippines. Since reengaging, ADB has coordinated closely with development partners in order to address effectively current and emerging road subsector issues through lending and technical assistance. The technical assistance project for Strengthening Transparency and Accountability in the Road Subsector,<sup>15</sup> approved in December 2009, is addressing key issues in subsector governance: mitigation of procurement risks, strengthening internal accountability mechanisms, and strengthening external accountability mechanisms. It complements assistance provided by other development partners and forms part of the multidonor effort to improve the capacity of key sector institutions. The Road Improvement and Institutional Development Project is providing further support for this coordinated multidonor effort and for improvements in the national road network. (para. 56)<sup>16</sup>

#### C. Other Development Partners' Support

51. ADB's major development partners in the transport sector are the Australian Agency for International Development (AusAID), the Department for International Development of the United Kingdom, the Japan International Cooperation Agency (JICA), the Millennium Challenge Corporation, and the World Bank. Before its 2008 merger with JICA, the Japan Bank for International Cooperation provided a substantial amount of support for the transport sector. The activities of these development partners since 2004 have been focused primarily on the road subsector (Table 1).

52. In addition to supporting investment projects, the development partners have extended assistance to a range of programs aimed at addressing key issues in the road subsector and developing the capacity of the DPWH and subsector institutions. The World Bank has focused its activities on addressing the issues of insufficient financing for road maintenance, weak institutional capacity of road subsector institutions, and low productivity in road administration. JICA has also provided

<sup>&</sup>lt;sup>12</sup> ADB. 2007. Completion Report: Sixth Road Project in the Philippines. Manila.

<sup>&</sup>lt;sup>13</sup> ADB. 2007. Completion Report: Third Airports Development Project (Southern Philippines) in the Philippines. Manila.

<sup>&</sup>lt;sup>14</sup> ADB. 2008. Technical Assistance to the Republic of the Philippines for Road Sector Improvement Project. Manila (TA 7093-PHI).

<sup>&</sup>lt;sup>15</sup> ADB. 2009. Technical Assistance to the Republic of the Philippines for Strengthening Transparency and Accountability in the Road Subsector. Manila (TA 7434-PHI).

<sup>&</sup>lt;sup>16</sup> ADB. 2011. Report and Recommendation of the President to the Board of Directors: Proposed Loan to the Republic of the Philippines for the Road Improvement and Institutional Development Project. Manila (Loan 2836-PHI).

Development Partner	Project Name	Approval Date	<b>Amount</b> (million)
Road Transport			
MCC	Secondary National Roads Development Project	2011	\$214.4
JICA	Road Upgrading and Preservation Project	2011	¥40,847.0
World Bank	Second National Roads Improvement and Management Program (NRIMP-2)	2008	\$232.0
AusAID	Southern Philippines Provincial Road Maintenance Program NRIMP-2 (Grant Cofinancing for Institutional Capacity Development)	2008 2008	A\$100.0 \$10.5
JBIC	Arterial Road Bypass Program Tranche I (Plaridel and Cabanatuan) Central Mindanao Road Program	2004 2004	¥6,223.0 ¥3,717.0
DFID	UK-Tulay ng Pangulo sa Kaunlaran (Bridge for Progress) – Nationwide Installation of Rapidly Erected Permanent Urban Flyover System and Long-Span Bridges	2004	\$168.4

#### Table 1 Major Projects Financed by Other Development Partners since 2004

A = Australian dollar, ¥ = yen, AusAlD = Australian Agency for International Development, DFID = Department for International Development of the United Kingdom, JBIC = Japan Bank for International Cooperation, JICA = Japan International Cooperation Agency, MCC = Millennium Challenge Corporation, UK = United Kingdom.

Source: ADB. Southeast Asia Department.

significant assistance to address the weak institutional capacity of road subsector institutions and the low productivity in road administration. In addition, JICA has provided assistance to address the low level of private sector participation in the road subsector. AusAID has focused its activities on the issue of weak governance in the road subsector, as well as supporting improvements to the organizational effectiveness of the DPWH. A summary of assistance is in Table 2.

Issue	Actions	Development Partner
Insufficient financing of road maintenance	<ul> <li>Road Board and Road Fund</li> <li>Strengthen the operation of the Road Board and utilization of the Road Fund established under the Motor Vehicle User's Charge Act.</li> <li>Review and update the mandate and implementing rules and regulations of the Road Board and the motor vehicle user's charge funds.</li> <li>Support appropriate expansion of the revenue base of road user cost recovery to a sustainable level.</li> </ul>	World Bank World Bank World Bank
Weak governance	<b>Financial Management</b> Implement the national accounting system and related controls; and strengthen internal controls and the monitoring of the whole financial management system, consultant services for internal audit capacity building, and computer hardware and software.	AusAID
	<b>Road Partnerships</b> Provide initial operating and advisory support for the newly established nongovernment association of road user, citizen, and nongovernment stakeholders ( <i>Bantay Lansangan</i> —Road Watch).	AusAID
	Integrity Support Support independent procurement evaluator and independent technical audit.	AusAID

#### Table 2 Assistance to Address Road Subsector Issues

continued on next page

#### Table 2Continued

Issue	Actions	Development Partner	
Weak institutional capacity of	<b>Engineering Design</b> Strengthen the management and processes employed in the DPWH for project implementation, in particular engineering design.	JICA, World Bank	
road subsector institutions	<b>Research and Quality Assurance</b> Enhance capacity for managing construction quality and support applied research for evaluating performance and cost effectiveness in road works, including preparation of manuals and guidelines for post-evaluation of DPWH infrastructure projects and their application to pilot projects.	ADB, JICA, World Bank	
	Maintenance Management Enhance routine maintenance management system including training, pilot run, institutionalizing, and roll-out to all regions and districts.	ADB, World Bank	
	<b>Strengthening of Safeguards Support</b> Strengthen DPWH capabilities in safeguards to reduce the time for implementing land acquisition and resettlement, strengthen the environmental and social assessment capability of DPWH, and mainstream gender in infrastructure development.	ADB, World Bank	
	<b>Information and Communications Technology</b> Expand and upgrade technology infrastructure for data communications in DPWH, which allows cost-effective and efficient implementation of business processes (including development and installation of program management information system, and procurement of computer hardware and office software for district offices).	ADB, JICA, World Bank	
	<b>Road Safety Audits</b> Improve road safety audit, including its application to specific projects and development of accident prevention program.	ADB, World Bank	
	Design Capability in Road Hazard Mitigation Enhance DPWH design capability in road hazard mitigation.	JICA	
	Weighbridge Stations to Combat Overloading Install additional weighbridge stations to combat overloading, including improved operation and strict enforcement of load limits.	AusAID, JICA	
Low productivity in road	Procurement Process and Systems Implement key computerized applications for cost estimation, prepare and evaluate bidding documents, and undertake bid analysis.	World Bank	
administration	<b>Organizational Effectiveness</b> Modernize the organization of DPWH and improve the performance and management of its staff through comprehensive human resource development.	ADB, AusAID, World Bank	
	<b>Road Safety</b> Enhance traffic accident recording and analysis system, including upgrading, training of DPWH and PNP, and deployment to districts.	ADB, JICA	
	<b>Construction Industry</b> Strengthen the local construction industry to undertake road maintenance contracts.	JICA, World Bank	
Low private sector	Public–Private Partnerships for Road Projects Prepare public–private partnership projects for implementation.	AusAID, JICA	
participation in road subsector	Road Management Service Delivery Pilot trial options for commercializing the current agency-led operations.	JICA, World Bank	

ADB = Asian Development Bank, AusAID = Australian Agency for International Development, DPWH = Department of Public Works and Highways, JICA = Japan International Cooperation Agency, PNP = Philippine National Police.

Source: ADB. Southeast Asia Department.

#### D. ADB's Sector Strategy

53. ADB's partnership with the Philippines is based on the intersection of PDP priorities with ADB's Strategy 2020.<sup>17</sup> A principal objective of ADB support for the Philippines is to help in the achievement of high, inclusive, and sustainable growth. Support for infrastructure development, including transport, forms a core part of ADB's operational strategy for the country.

54. ADB's strategy in the transport sector grows out of this overall strategy to support inclusive, environmentally sustainable growth and the government's priority investment program.<sup>18</sup> The strategy aims to address three core issues within the transport sector: (i) enhancement of transport efficiency; (ii) development of urban transport; and (iii) sustainability of the transport system in terms of the physical sustainability of assets, the social sustainability of operations in relation to safety and security, and its environmental sustainability. As such, ADB's strategy for the Philippine transport sector is fully consistent with ADB's Sustainable Transport Initiative, which supports the development of transport systems that are economically, socially, and environmentally sustainable.<sup>19</sup>

55. To address the three core issues, the strategy supports four key areas of intervention: (i) improvement of national highways, (ii) development of urban transport, (iii) strengthening of sector governance, and (iv) facilitation of private sector infrastructure development and regional operations. The strategic linkages underpinning these four areas of support are shown in the figure. The Transport Sector Road Map and Results Framework is in Table 3.

56. **Improvement of national highways.** ADB is undertaking a major initiative to help the government address core issues facing the national road network through the Road Improvement and Institutional Development Project, approved in December 2011. The project is supporting investments to improve the quality and sustainability of the national road network, and it will also support improvements in sector governance and strengthening of institutional capacity at the DPWH.

57. The investment component of the project is supporting periodic maintenance of about 340 km of nine national roads located in three areas: the west coast of Luzon, the Visayas, and Mindanao. This maintenance will directly support improved efficiency of vehicle movements over the roads in question by reducing transport costs and travel times. It will also enhance the physical sustainability of the assets. Improved road conditions should also lead to a reduction in road accidents, thereby contributing to enhanced social sustainability, while more efficient vehicle operations over these roads should lead to a reduction in fuel usage and hence lower carbon and other emissions. During implementation of this periodic road maintenance, the project will support improved transport sector governance through implementation of a comprehensive governance risk mitigation plan focusing on (i) elimination of opportunities for corruption, (ii) improved public expenditure and financial management, and (iii) enhancement of procurement procedures.

58. The institutional development component of the project is consistent with, and builds on, the ongoing efforts by the government and development partners to improve the capacity of the DPWH and the efficiency and sustainability of the road system. Under this component, support is being given to the DPWH for institutional and capacity development in six areas that are critical for improving the quality and sustainability of the road network.

59. The institutional development component is supporting the improvement of the physical sustainability of the national road network through the institutionalization of a road maintenance and

<sup>&</sup>lt;sup>17</sup> ADB. 2008. Strategy 2020: The Long-Term Strategic Framework of the Asian Development Bank, 2008–2020. Manila.

<sup>&</sup>lt;sup>18</sup> The strategy presented is for discussion purposes only, and represents no commitment on behalf of ADB or its clients.

<sup>&</sup>lt;sup>19</sup> ADB. 2010. Sustainable Transport Initiative Operational Plan. Manila.

#### Strategic Linkages



ADB = Asian Development Bank, ASR = assessment, strategy, and road map. Source: ADB. Southeast Asia Department.

management system designed to enhance the DPWH's capacity to plan and implement maintenance of roads under its jurisdiction. It is also supporting improvements in the quality of the road network through the development and installation of a project management information system that will strengthen the DPWH's project management capabilities by improving its capacity to track the progress of projects, including procurement, construction, handover, and evaluation. A third element of the institutional development component is support for an infrastructure development and quality assurance system. This will improve project quality by enhancing the DPWH's capacity for materials testing and assuring the quality of civil works. It will also support the development of a sustainable research program to investigate the factors affecting durability.

60. The institutional development component is also assisting in improving the social and environmental sustainability of the national road network. It is supporting the improvement of road safety through the enhancement of traffic accident recording and analysis, and the implementation of a road safety audit system to ensure that engineering designs for existing and new national roads increasingly incorporate road safety features. The component is also helping to strengthen the DPWH's capacity to undertake environmental and social assessments of projects and mainstream gender issues in project development. The DPWH's capacity for environmental management of projects and management of infrastructure rights-of-way is also being improved.

61. The final area in which the project's institutional development component is supporting the development of capacity in the DPWH is by improving human resource management through the development of a comprehensive human resource development plan and strengthening of the DPWH's organizational culture.

62. The project is the first in a planned series of projects through which ADB will work with the DPWH to address core issues facing the road subsector. Project preparatory technical assistance projects for the second and third road improvement and institutional development projects are planned for approval in 2013 and 2014, and the loans are planned for approval in the subsequent years. These projects will finance the improvement of additional sections of the national road network and continued strengthening of the DPWH's institutional capacity.

63. **Development of urban transport.** ADB has already undertaken pre-feasibility analysis for a project to improve public transport services in Davao City.<sup>20</sup> Building on this, policy and advisory technical assistance is proposed to support modernization of the city's public transport system. Following this, project preparatory technical assistance is proposed to prepare and conduct the necessary due diligence for a Davao sustainable urban transport project. The project is expected to comprise investment in the construction of a bus rapid transit system, as well as in capacity development for sustainable management of traffic in Davao City. If successful, this project could generate useful lessons that could be replicated in other cities throughout the country. In addition, ADB's program for the Philippines includes the proposed Market Transformation through Introduction of Energy-Efficient Electric Tricycles Project being prepared by ADB's Southeast Asia Energy Division.

64. **Strengthening of sector governance.** ADB is already supporting increased transparency and accountability for road subsector budgets and investments through an ongoing technical assistance operation (footnote 15). The project is playing a key role in mitigating corruption risks for planned road subsector activities, and strengthening governance and capacity to achieve improved transparency and accountability. The investment component of the Road Improvement and Institutional Development Project (footnote 16) is supporting the implementation of the outputs of this technical assistance through their application to procurement for and management of the project within the DPWH.

65. Facilitation of private sector and regional operations. ADB's private sector operations will also be responsive to the government's transport sector priorities. Private sector operations will support private sector projects for (i) construction, expansion or modernization, and operation of toll roads; (ii) construction and operation of mass transit systems such as light and/or metro rail systems, bus rapid transit systems, and nautical highway systems; (iii) modernization or expansion of transport fleets or rolling stock; and (iv) construction, expansion or modernization, and operation of ports and airports. Support for private sector operations will also come, indirectly, through the improvements in sector governance and the strengthening of institutional capacity, which should result in improvements in the investment climate.

66. ADB will support regional integration through possible support for improvement of ports, particularly those handling ro-ro ferry operations, and roads providing access to ports of regional significance.

<sup>&</sup>lt;sup>20</sup> ADB. 2009. Technical Assistance for Preparing the Implementation of Asian City Transport—Promoting Sustainable Urban Transport in Asia Project. Manila. Outputs included a plan to rationalize bus operations and franchising arrangements, a program for fleet renewal and associated financing mechanisms, and a prefeasibility study of a mass transit system and public transport stations and terminals at key locations in Davao City.

## Transport Sector Road Map and Results Framework

Country Sector Outcomes		Country Sector Outputs		ADB Sector Operations	
Sector Outcomes with ADB Contribution	Indicators with Targets and Baselines	Sector Outputs with ADB Contribution	Indicators with Incremental Targets	Planned and Ongoing ADB Interventions	Main Outputs Expected from ADB Interventions
Improved accessibility of transport infrastructure and services	Road density improves to 23.5 km/10,000 persons by 2016 (2010 baseline: 22.4) Increase in use of roll-on roll-off network to 3.3 million passengers and 462,000 vehicles by 2016 in Western Nautical Highway (2008 baseline: 3 million passengers and 420,000 vehicles) Average road user cost reduced to P17.00/km in 2016 (2008 baseline: P21.17/km) Percentage of accidents in accident black spots reduced to 9% in 2016 (2008 baseline: 18%)	Road system maintained, roads improved or built Nonroad systems maintained, improved, or built Increased institutional capacity to maintain and expand transport systems	Paved national arterial and secondary road ratio increased to 1.00 in 2016 (2010 baseline: 0.81) Percentage of national roads in good and fair condition increased to 80% in 2016 (2008 baseline: 55%) Paved national road density increased to 0.30 km/1,000 people in 2016 (2008 baseline: 0.25 km/1,000 persons) Number of ports accommodating roll-on roll-off vessels increased to 70 (government) and 26 (private) by 2016 (2009 baseline: 65 [government] and 24 [private]) DPWH budget disbursement increased to 90% in 2016 (2007 baseline: 66%)	<ul> <li>Planned key activity areas National roads (75% of funds)</li> <li>Consultancy for project supervision and detailed design, asset preservation and road maintenance (12% of funds)</li> <li>Institutional capacity building (11% of funds)</li> <li>Pipeline projects with estimated amounts Second RIIDP (2015: \$200 million)</li> <li>PPTA for Second RIIDP (2013: \$1.1 million) and Third RIIDP (2014: \$0.8 million)</li> <li>PATA on Davao Sustainable Urban Transport Project (2012: \$1.0 million)</li> <li>PPTA for Davao Public Transport Modernization Project (2015: \$1.3 million)</li> <li>Ongoing projects with approved amounts RIIDP (2011: \$62.0 million)</li> <li>Technical Assistance for Strengthening Transparency and Accountability in the Road Sector (2009: \$1.0 million)</li> </ul>	<ul> <li>Planned key activity areas</li> <li>Civil works for asset preservation and road improvement</li> <li>Consulting services for project implementation and detailed design</li> <li>Pipeline projects</li> <li>Periodic maintenance and improvement of about 1,200 km of national roads throughout the Philippines</li> <li>Improved governance and strengthened institutional capacity in the transport sector</li> <li>Preparation of detailed engineering design for about 1,480 km of national roads to be maintained or improved under future projects</li> <li>Public transport reform program for Davao City</li> <li>Ongoing projects</li> <li>Mitigation of procurement risks for planned ADB-financed road subsector activities</li> <li>Improved internal accountability mechanisms within DPWH</li> <li>Strengthened external accountability mechanisms, and organizational and network capacity of key stakeholders</li> </ul>

#### Table 3 Transport Sector Road Map and Results Framework

ADB = Asian Development Bank, DPWH = Department of Public Works and Highways, km = kilometer, P = peso, PATA = policy and advisory technical assistance, PPTA = project preparatory technical assistance, RIIDP = Road Improvement and Institutional Development Project.

Source: ADB. Southeast Asia Department.

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### Appendix Problem Tree for the Transport Sector



#### Philippines: Transport Sector Assessment, Strategy, and Road Map

The Asian Development Bank (ADB) is preparing sector assessments, strategies, and road maps (ASRs) to help align future ADB support with the needs and strategies of developing member countries and other development partners. ASRs are working documents that help inform the development of country partnership strategies. This transport sector ASR highlights development issues, needs, and strategic assistance priorities of the Government of the Philippines and ADB, with a focus on roads and intermodal integration, governance and institutional capacity, urban transport, and private sector provision of infrastructure. It highlights sector performance, priority development constraints, the government's strategy and plans, other development partner support, lessons learned from past ADB support, and possible future ADB assistance including knowledge support and investments. The report serves as a basis for further dialogue on how ADB and the government can work together to tackle the challenges of managing transport sector development in the Philippines in the coming years.

#### About the Asian Development Bank

ADB's vision is an Asia and Pacific region free of poverty. Its mission is to help its developing member countries reduce poverty and improve the quality of life of their people. Despite the region's many successes, it remains home to two-thirds of the world's poor: 1.7 billion people who live on less than \$2 a day, with 828 million struggling on less than \$1.25 a day. ADB is committed to reducing poverty through inclusive economic growth, environmentally sustainable growth, and regional integration.

Based in Manila, ADB is owned by 67 members, including 48 from the region. Its main instruments for helping its developing member countries are policy dialogue, loans, equity investments, guarantees, grants, and technical assistance.

Asian Development Bank 6 ADB Avenue, Mandaluyong City 1550 Metro Manila, Philippines www.adb.org

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