

SECTOR ASSESSMENT (SUMMARY): URBAN TRANSPORT

Sector Road Map

1. Sector Performance, Problems, and Opportunities

a. Context

1. Viet Nam's two large urban areas—Ha Noi and Ho Chi Minh City (HCMC)—have 14 million residents, almost 6 million of whom are employed. They are the only cities in the country with more than 1 million people and dominate the urban transport sector. Together, they account for 20 million passenger trips per day. Establishing efficient urban transit services is essential for the continued economic growth of both urban centers, which have led Viet Nam's overall economic expansion since 2000. The two cities also serve as hubs that provide critical support and services to many sectors of the country's economy.

2. The increased demand by urban populations for transport generated by economic growth has been met mainly by a rapid expansion of private vehicle fleets. Only Ha Noi has a public bus system that can accommodate a reasonable portion of demand. Private vehicles provide a high 80%–90% of total passenger trips in Viet Nam's major urban centers. Motorcycles make up the vast majority of these vehicles, but the number of private family cars is expected to increase significantly as household incomes rise. This will exacerbate the already severe rush hour congestion on urban roads during peak travel hours. Making the transport sector more efficient would not only mitigate this congestion and the urban environmental and social degradation associated with it, but also reduce logistics costs and bolster international competitiveness of Viet Nam.

b. Challenges and Relevance to Development

3. The government sees improvements to the transport sector as a key to sustaining Viet Nam's socioeconomic development. In a 5-year plan for 2011–2015, the Ministry of Transport identified the core sector problems as (i) incomplete, nonintegrated institutional systems and development plans; (ii) the unsatisfactory quality and capacity of transport services; (iii) the poor quality and insufficient quantity of transport infrastructure in both urban and rural areas; (iv) an insufficient state budget and lack of other financial sources; and (v) the uncertain, complicated state of the global economy.¹

4. Urban transport in Viet Nam, though still at an early stage of development, is on an unsustainable path that will hinder the country's long-term growth. The existing road networks cannot accommodate the current growth of private motorcycles and cars that now dominate urban transportation and cause severe congestion during rush hours. The public transit system is limited to a badly integrated bus networks that cannot compete with the private vehicles. Traffic planning is weak, and traffic management is inadequate. Heavy congestion along major routes and in inner city areas is creating a poor urban environment. Most importantly, the government cannot take policy and regulatory steps to discourage private vehicle use until an efficient public mass transport system exists as a viable choice for the residents and commuters of its large cities and their suburbs.

¹ Government of Viet Nam, Transport Minister. 2009. Transmittal Letter of No.7011/BGTVT-KHDT of 7 October 2009, Five-Year Plan 2011–2015. Hanoi.

5. **Enhancement of transport efficiency.** Efficient urban transport can be achieved only through synergy in road space and urban transit networks, not one mode using all road space. While the government has set a target of 15%–20% of land for urban transport, the amount of land actually available in urban areas for the necessary roads is insufficient and land prices are high. Most urban roads are narrow, and only 10% of them are wider than 12 meters and therefore suitable for use by large buses. An estimated 60% of the roads are 7–12 meters wide, which means they are suitable for minibuses and other smaller public transit vehicles. Another 30% are less than 7 meters wide and suited only to motorcycle traffic.

6. The city government of Ha Noi and HCMC intend to meet demand for urban public transit by developing mass rapid transit (MRT) lines along major urban corridors and expanding the bus network, including bus rapid transit systems, significantly. Some MRT lines are to be expected to be extended eventually to regional growth centers. To ensure that ridership on public rapid transit grows, the government proposes to integrate all modes of urban transit through common terminals or multimodal transfer points; coordinate bus and rail schedules; and standardize operations, safety and emergency services, maintenance, and ticketing systems. While such improvements are essential, they will require good coordination to be effective.

7. **Institutional, organizational, and financial development.** The complex process of planning, designing, constructing, commissioning, operating, and maintaining a modern urban transit system requires expertise and knowledge formed through previous experience with similar systems. This is lacking in Viet Nam. Each major city's department of transport is usually responsible for coordinating transport planning and working with other departments that manage the road network, but the institutions that plan, develop, and operate urban transit are not well integrated under city's people's committees. Separate agencies exist for bus management and for bus operations. New agencies are created for MRT systems. Separate line departments exist for road investment and for traffic management. No single agency is responsible for the overall urban transit system. This means that a hierarchy of operational management for each urban transit mode needs to be established. This can be achieved through establishment of a public transport authority (PTA).

8. The government's urban transport master plan to 2020 will require major investments. The total estimated costs in Ha Noi will be about \$12.7 billion, of which \$6.8 billion (54%) will be for roads, \$5.4 billion (43%) for urban transit, and \$0.4 billion (3%) in other subsectors. The corresponding estimates in HCMC are \$11.2 billion (51%) for roads, \$9.8 billion (42%) for urban transit, and \$1.1 billion (7%) for other costs. These costs cannot be borne by the two cities alone. They will require substantial external financing from the national government, in official development assistance, or through the private sector in the form of bonds, debt, or other modalities.

9. The emphasis by city governments on initiatives that will separate policy, regulatory, and operator roles is a positive development for improving public transit. However, a multimodal orientation is still lacking, resulting in imbalances and integration problems between subsectors, as well as in poor and inadequate coordination with investments and sector support programs in other transport sectors.

10. **Traffic safety and social sustainability.** Greater social sustainability can be achieved through urban transport development and a modal shift from the use of private vehicles to public transit systems. This would significantly improve the urban environment and social conditions in Viet Nam's cities and provide public transport users and the general population with numerous indirect social benefits. These include better transportation safety, less congestion, shorter

commuting times, a more pedestrian-friendly environment, and improved indirect economic opportunities. Combined, these benefits would upgrade the urban environment and lead to a better quality of life for city populations. Developing traffic and passenger safety in an improved urban transit network is a core issue that needs to be addressed by a central PTA.

11. **Mainstreaming climate change mitigation and adaptation.** Viet Nam needs to mainstream and invest in climate change mitigation and adaptation. The country is highly vulnerable to climate change. The introduction of a well-integrated urban transit system that encourages passengers to switch from private vehicles to public transit systems will support climate change mitigation in urban areas by reducing carbon emissions. The government's urban transport master plans for its cities are targeting a 30%–40% shift overall, which, when combined with natural growth of the cities, would result in significant savings in greenhouse gas emissions. The plans proposes systematic adaptation approaches in urban transit development, including designs of MRT lines and structures with raised station entrances and high pumping capacity to withstand flooding.

2. Government's Sector Strategy

12. The government's socioeconomic development plan for 2011–2015 emphasizes environmental protection and an improved business environment and stresses the need for more effective management of the transport sector. The four core sector objectives are (i) enhanced subregional transport efficiency; (ii) institutional, organizational, and financial development in transport; (iii) traffic safety and social sustainability; and (iv) the mainstreaming of climate change mitigation and adaptation.

13. Ha Noi and HCMC both have urban transport master plans to expand their road and public transit network capacities to meet future demand from passengers and for the movement of goods and provision of services. They propose investments and set bold targets for public transit system shares in overall passenger trips of 40%–50% by 2050, which is high by international standards. Both aim to raise the urban transit share from the current level of below 8% to 22% by 2020 and to 28% by 2030.^{2,3} The plans envisage the construction of radial and ring roads and bridges, the development of urban transit systems, the strengthening of traffic management, and the improvement of pedestrian facilities.

14. The government proposes to establish a new PTA in HCMC by 2018, with the institutional arrangements for the new agency still being developed. In Hanoi, the PTA is expected to be established by expanding the role and separating units in the Transport Management and Operation Center. These approaches suit the particular capacity and organizational situation in each city, but making the structural changes necessary will be challenging within the prevailing operating cultures. The PTAs should improve coordination, but more efficient and effective urban transit operations will still be needed. An increase in private sector involvement in operation and maintenance will also be required.

3. ADB Sector Experience and Assistance Program

15. ADB made its first loan for urban transport in Viet Nam in December 2010 and has

² Japan International Cooperation Agency (JICA). 2007. *The Comprehensive Urban Development Programme in Hanoi Capital City (HAIDEP)*. Tokyo

³ JICA. 2004. *The Study on Urban Transport Master Plan and Feasibility Study in Ho Chi Minh Metropolitan Area (HOUTRANS)*. Tokyo

limited investment experience in the sector.⁴ Nonetheless, it is now the sector's second largest external financier. ADB has worked with the government since 2007 to ensure that proposed infrastructure investments take a comprehensive multimodal and integrated approach. This approach will be developed for HCMC MRT Line 2, through technical assistance under the ADB loan and by ADB mobilizing significant global climate change funds from the Clean Technology Fund for implementing non-MRT components.⁵

16. Past and ongoing ADB experience with major infrastructure projects in Viet Nam indicates that weaknesses occur when insufficient effort is exerted to strengthen institutions, government ownership of advisory technical assistance projects is weak, project preparation processes are lengthy, capacity analysis at both national and provincial levels is poor, and allocation of ADB staff resources is inadequate.⁶ The use of full market rates required by ADB and usually practice of prescribed government rates for compensation have created difficulties for government agencies during implementation and confusion of compensation basis for some recipients. This issue has been addressed on a project-by-project basis, but a substantive capacity development is needed to ensure that agreed involuntary resettlement document requirements agreed to by ADB and the government are applied uniformly.

17. ADB will work with other development partners with larger programs in the urban transport sector. The World Bank is implementing initiatives that complement ADB's core urban transport efforts. The World Bank's Hanoi Urban Transport Development Project is expected to establish a PTA in Hanoi by 2015.⁷ The government has received technical assistance support for the Japan International Cooperation Agency on the HCMC City Urban Railway Construction Project (Line 1), which will address overall MRT system operations and maintenance approach and MRT ticketing issues.⁸

18. ADB's investments are expected to enhance efficiency in urban transport networks, which will be realized primarily in terms of reduced travel time and costs. Efficiency will also be improved through higher public transit capacity and improved reliability and connectivity. Expected ADB's planned interventions include (i) to build capacity, strengthen implementation, improve operation and maintenance, and achieve climate change mitigation and adaptation in urban transport development in Ha Noi and HCMC; and (ii) project preparatory technical assistance for two MRT lines and the related urban transport integration projects.

19. Urban transport will account for 20% of ADB assistance to Viet Nam during 2014–2017, which is expected to include the proposed HCMC MRT Line 5 and Ha Noi metro Line 3 extension projects. These will construct 20 kilometers of rail MRT and associated urban transport infrastructure to enhance the integration of all urban transport modes.

⁴ ADB. 2010. *Report and Recommendation of the President to the Board of Directors: Proposed Multitranche Financing Facility to the Socialist Republic of Viet Nam for the Ho Chi Minh City Urban Mass Rapid Transit Line 2 Investment Program*. Manila (MFF0052-VIE).

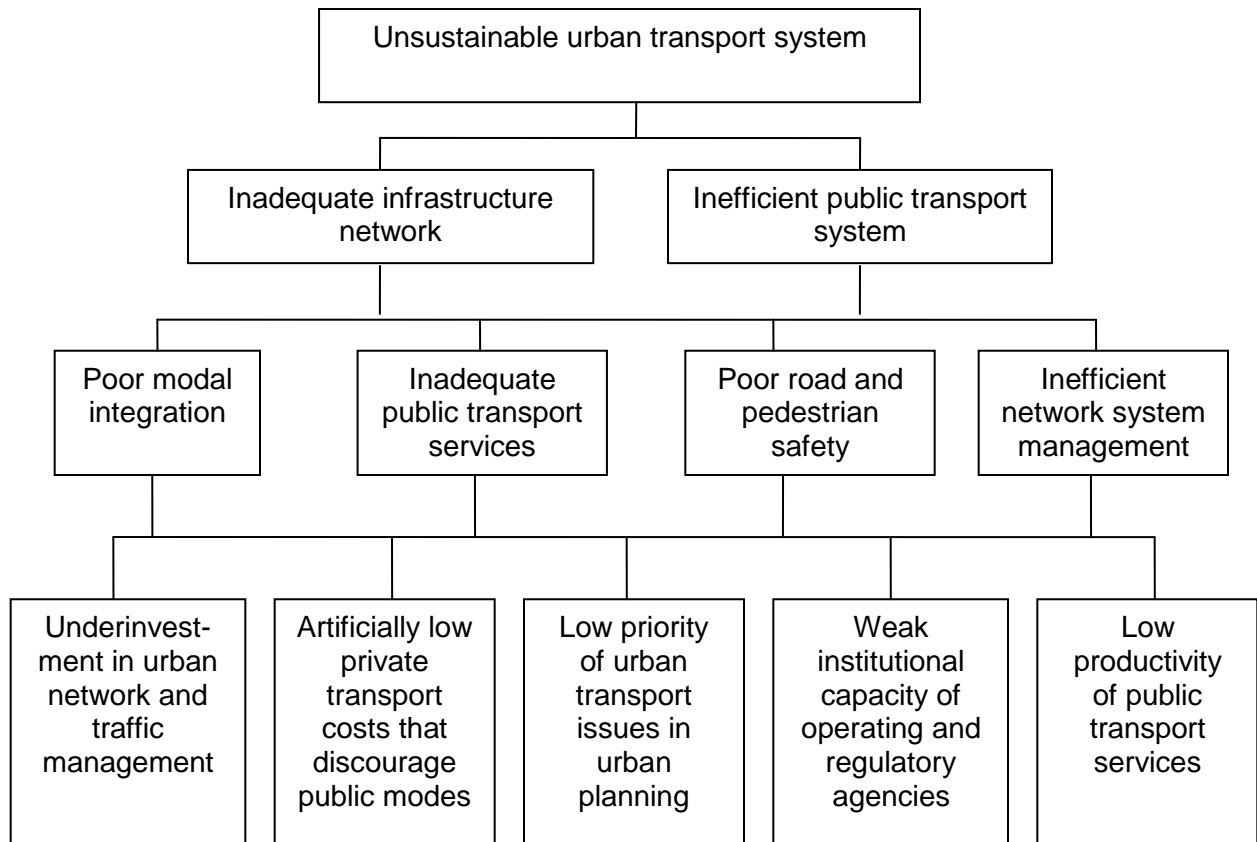
⁵ ADB. 2010. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to the Socialist Republic of Viet Nam for the Ho Chi Minh City Urban Mass Rapid Transit Line 2 Investment Program, Tranche 1*. Manila.

⁶ ADB. 2009. *Sector assistance program evaluation for Viet Nam*. Manila.

⁷ World Bank, 2006. *Vietnam-Hanoi Urban Transport Development Project*. Washington DC.

⁸ JICA 2012. *Special Assistance for Project Implementation (SAPI) for establishment of an organization for the operation and maintenance of Metropolitan Railway Line in Hanoi City, Final Report*. Tokyo.

Problem Tree for Urban Transport



Sector Results Framework (Urban Transport, 2010–2015)

Country Sector Outcome		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 efficiencies in the transport of goods and people	Passenger share of public transit in Ha Noi and HCMC increases to 22% by 2020 from a 2010 baseline of 8%.	Urban transport networks improved Public transport services improved in quality, reliability, and capacity	80 km of rail MRT established in HCMC and Hanoi by 2020, from none in 2010 Public transport authorities established in HCMC and Hanoi by 2015 Traffic accident fatalities reduced by 20% by 2015 from a 2007 baseline of 12,800 in HCMC and Hanoi	(i) Planned key activity areas: Urban transit (35% of ADB transport funds) (ii) Projects in the pipeline with estimated amounts Urban sustainable transport projects (\$150 million) Hanoi Line 3 extension (\$0.8 billion) HCMC MRT Line 5 (\$1.2 billion) (iii) Ongoing projects with approved amounts Hanoi Line 3 (\$1.1 billion) HCMC MRT Line 2 (\$1.35 billion)	(i) Planned key activity areas: MRT construction Urban transport integration (ii) Pipeline projects 100 km bus routes, including 20 km of bus rapid transit Public transport facilities (iii) Ongoing projects 20 km of MRT lines to be constructed

ADB = Asian Development Bank, HCMC = Ho Chi Minh City, km = kilometer, MRT = mass rapid transit.

Source: ADB estimates.