SECTOR ASSESSMENT (SUMMARY): ROAD TRANSPORT

Sector Road Map

1. Sector Performance, Problems, and Opportunities

1. Gross domestic product (GDP) in Viet Nam has more than doubled since 2004. In 2009, the transport sector in Viet Nam accounted for approximately 4.5% of the country’s GDP.\(^1\) Within the transport sector, the road transport subsector predominates, accounting for approximately 3.6% of GDP. Viet Nam's rapid socioeconomic growth has been partly supported by its road transport. Its road networks have clearly moved past the rehabilitation era of the 1990s and early 2000s; over the next decade, Viet Nam's roads and expressways will need to be further developed to support the country's sustainable socioeconomic growth.

2. Viet Nam has an extensive existing road network and a relatively high overall road density. The present network comprises more than 256,000 kilometers (km). About 17,000 km (7%) are national roads, about 23,000 km (9%) are provincial roads, with the vast majority of the network (84%) composed of local roads. There is no fully operational expressway in Viet Nam at present. Other significant characteristics of the network are its poor connectivity and limited capacity. The international road density comparison in Table 1 shows that Viet Nam’s density of expressway and national roads is particularly low compared to that of other nations.

<table>
<thead>
<tr>
<th>Road Density</th>
<th>Japan</th>
<th>Philippines</th>
<th>Thailand</th>
<th>UK</th>
<th>Viet Nam</th>
</tr>
</thead>
<tbody>
<tr>
<td>Road Network Density (km/km(^2))</td>
<td>3.16</td>
<td>0.67</td>
<td>0.38</td>
<td>1.58</td>
<td>0.78</td>
</tr>
<tr>
<td>National Road Network Density (km/km(^2))</td>
<td>0.14</td>
<td>0.10</td>
<td>0.11</td>
<td>0.19</td>
<td>0.05</td>
</tr>
<tr>
<td>Expressway Density (km/million vehicles)</td>
<td>97</td>
<td>97</td>
<td>36</td>
<td>115</td>
<td>0</td>
</tr>
</tbody>
</table>

km = kilometer, km\(^2\) = square kilometer, UK = United Kingdom.

3. The lack of capacity and connectivity is compounded by the condition of the roads. About 94% of national roads are paved, but only about 43% are deemed to be in good condition. Provincial and local roads are in considerably poorer condition, and about 24% of provincial roads, 86% of district roads, and 79% of commune roads are unpaved. Even in urbanized areas, only about half the roads are paved. In total, about 80% of the network is unpaved.

4. Transport is a key sector that will help sustain Viet Nam's socioeconomic growth in the next decade. As an input to the Viet Nam's next socioeconomic development plan, the Ministry of Transport (MOT) submitted the Five Year Plan for 2011–2015 in October 2009.\(^2\) The core sector problems identified by MOT in the plan are (i) incomplete institutional system and development plans, which are not integrated; (ii) unsatisfactory quality and capacity of transport service; (iii) insufficient, poor quality transport infrastructure in both urban and rural areas; (iv) insufficient state budget and other financial sources; and (v) the complicated situation of the global economy.

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\(^1\) ADB. 2009. *Key indicators for Asia and the Pacific 2009*. Manila. The figure includes communications sector.
5. ADB has identified many interwoven inefficiencies in the road transport subsector, as illustrated in the problem analysis (Figure 1). The core sector problem of inefficiency is linked to three sector problems—(i) lack of transport efficiency at the subregional level; (ii) the need for institutional, organizational and financial development; and (iii) a lack of traffic safety and social and environmental sustainability—as well as to the larger issue of climate change. These issues are in concert with those developed in ADB's Sustainable Transport Initiative.3

6. **Enhancement of subregional transport efficiency.** Viet Nam has significantly enhanced road network transport efficiency since 2005, but is only beginning to address expressway transport efficiency. The government plans to construct about 2,400 km of expressway by 2020, but requires additional funding to that being provided by Viet Nam, ADB and its development partners. National Highway 1 forms the backbone of the national road network, and the initial phases of upgrading have been completed. A number of westward road links (connecting to Cambodia, the People’s Republic of China and Lao People’s Democratic Republic) that branch off from this primary north–south corridor have been and or will be upgraded. The upgrading and road improvements along these links will significantly enhance subregional transport efficiency.

7. **Institutional, organizational, and financial development.** A recent major reorganization at MOT has affected the road subsector. The Vietnam Road Administration has been disbanded and replaced with the Directorate for Roads of Viet Nam (DRVN). The newly constituted DRVN now has a complete road authority organizational structure that includes (i) policy making, planning, investment, and finance; (ii) traffic safety, road management and maintenance; (iii) vehicle registration and licensing; and (iv) project and construction management.

8. The Vietnam Expressway Corporation (VEC) was established in 2004 as a state-owned enterprise under MOT. It was organized to be funded by toll revenues and financially independent from MOT. Soon after VEC was established, ADB took the lead in providing assistance in the development of an expressway master plan for Viet Nam, and ADB has continued to support the capacity development of VEC. The financial viability of some planned expressways may be low, and VEC's financial situation must be closely monitored, and its financial capacity enhanced. The government is considering establishing a governing body for expressways, tentatively called the Vietnam Expressway Management Administration (VEMA). VEMA's mandate will include managing traffic and operations, and maintaining the expressways.

9. **Traffic safety and social sustainability.** Road safety is a major concern throughout Asia, and including in Viet Nam. Traffic accidents disproportionately affect motorcycle users, the poor, and youth. About 70% of fatal accidents affect motorcycle users, primarily due to speeding and reckless overtaking, and more than half of traffic fatalities involve people below the age of 30. There are three areas of concern with respect to traffic safety policy issues: the individual, the vehicle, and the roadway. MOT has relatively clear policies and strategies to address roadway issues such as identification of accident “black spots” and road infrastructure improvements. Likewise, policy issues with regard to the vehicle are also relatively clear. The most difficult traffic safety issue is establishing policies that will affect individual behaviors; this will require national leadership, beyond MOT.

10. Improved transport is the key to increasing access by the rural population to social and economic opportunities and thereby to reducing poverty. Improved access and increased

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3 ADB. 2010. **Sustainable Transport Initiative, Operational Plan (Staff Working Paper).** Manila.
mobility of the population is directly correlated to improved equality (both gender and economic equality). However, improved access can also increase the risk of negative impacts, such as HIV/AIDS, illicit drugs, and human trafficking. Preventive measures against those risks should be taken in close coordination with transport projects at the pre-construction, construction, and post-construction phases.

11. **Mainstreaming climate change.** In a recent study, ADB concluded that Viet Nam is one of the countries that are most vulnerable to the impacts of climate change. A recent report also indicated that Ha Noi is one of world’s 10 most-vulnerable major cities to potential flooding due to the effects of worldwide climate change.

2. **Government’s Sector Strategy**

12. The government’s current national planning strategy for the country is reflected in the Socioeconomic Development Plan (SEDP) for 2006–2010. It highlighted the importance of Viet Nam’s transport sector in promoting socioeconomic growth, poverty reduction, safety enhancement, environmental protection, and human resource development. The SEDP for 2011–2015 is expected to emphasize the overall protection of the environment and improvement of the business environment, and to stress the need for more effective management of the transport sector. In the next decade (2011–2020), it is expected that the continued planned development of infrastructure will require about $16 billion annually. Based on current estimates, less than half of that amount is projected to be available. The government's primary source to make up this very significant shortfall is the private sector, which will require successful development in the near future of an effective legal framework for public–private partnerships (PPPs).

13. In January 2010, the Prime Minister of Viet Nam approved the master plan for the north–south expressway–eastern side (MPNSE), which includes the Greater Mekong Subregion Ben Luc–Long Thanh expressway project. The master plan addresses the alignment, technical standards, investment cost, and construction period, and provides details of required land appropriation. The master plan will be implemented over a 14-year schedule (from 2010 to 2023), is expected to cost about $17.9 billion, or about $10 million per km, and will require an average yearly investment of about $1.3 billion during implementation.

3. **ADB Sector Experience and Assistance Program**

14. As outlined in the country partnership and strategy (CPS) for 2007–2010, ADB’s strategy was to support the government’s investment to improve transport infrastructure and reduce transport costs. The proposed program had three thrusts, which were in line with the government’s SEDP for 2006–2010: (i) addressing the social equity aspects of Viet Nam’s transport needs through use of Asian Development Fund (ADF) to support the development of provincial and district roads, (ii) providing support for investment projects to address critical transport needs that are constraints to socioeconomic growth in the main development centers, and (iii) bringing subregional dimensions to the development of the transport network.

15. ADB’s comparative advantages in the road transport subsector include (i) a track record as a major sector funding agency since the early 1990s, (ii) bringing a Greater Mekong Subregion dimension to sector development, (iii) recognition by both the government and other funding agencies that ADB is a major partner, and (iv) capacity to provide ADF and ordinary

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4 ADB. 2009. *The Economics of Climate Change in Southeast Asia: A Regional Review.* Manila
capital resources loans for major projects and policy reform programs. As ADB moves into the next decade it will be incumbent upon the institution to (i) use these historical advantages, (ii) broaden its range of experience and bring value-added expertise to such issues as traffic safety and climate change, and (iii) expand its efforts to support private participation in transport programs and support good governance in the private and public sectors.

16. Expected ADB investments in the road transport subsector will be targeted to enhance transport efficiency in expressway and road transport networks, which will be realized primarily through reductions in travel time and cost. Additionally, increased road subsector efficiency will result from increased network capacity, and improved transport reliability and connectivity. Expected outputs include (i) capacity development technical assistance projects to strengthen financial arrangements, operation and maintenance, and governance in the road transport subsector; and to increase road safety capacity and climate change adaptation development on national and provincial roads; (ii) project preparatory technical assistance projects for new road and expressway projects; and (iii) loan support for the continued implementation of priority expressways and the upgrading and improvement of national and local roads.

17. In planned and ongoing interventions by ADB in the transport sector for 2011–2015, expressways are planned to account for one of the largest shares (35%) of funds, with national and provincial roads planned to account for 25%. Through these interventions, 400 km of expressways are expected to be constructed, and 2,600 km of national and provincial roads are expected to be constructed or rehabilitated.
Problem Tree for Road Transport Subsector

National Impacts

Inefficient socioeconomic development, industrialization, modernization and integration into regional and international economy

Lack of regional and international competitiveness and high logistics costs

Urban congestion and environmental and social degradation

Unsafe transport systems and transport network operations

Sector Impacts

Inefficiencies in the Transport Sector

Lack of transport efficiency in national and subregional road and expressway networks

Inefficient institutional, financial, and operational development of transport agencies and private transport industry

Lack of traffic safety and social and environmental sustainability

Core Sector Problem

Sector Problems

Outputs, Risks and Assumptions

ADB = Asian Development Bank, SOE = state-owned enterprise.
### SECTOR RESULTS FRAMEWORK

<table>
<thead>
<tr>
<th>Country Sector Outcome</th>
<th>Country Sector Outputs</th>
<th>ADB Sector Operations</th>
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<tbody>
<tr>
<td><strong>Outcomes with ADB Contributions</strong></td>
<td><strong>Indicators with Targets and Baselines</strong></td>
<td><strong>Planned and Ongoing ADB Interventions</strong></td>
</tr>
<tr>
<td>Increased efficiency in the transport of goods and people</td>
<td>Subregional and national transport networks are improved.</td>
<td>(i) Planned Key Activity Areas:</td>
</tr>
<tr>
<td></td>
<td>Transport agencies and private transport industry are developed and enhanced institutionally, financially, and operationally.</td>
<td>Expressways (35% of funds)</td>
</tr>
<tr>
<td></td>
<td>Traffic safety and social and environmental sustainability are improved.</td>
<td>National and provincial roads (25% of funds)</td>
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<td></td>
<td>Length of expressway 2,381 km by 2020. (2010 baseline: 0km)</td>
<td>Urban transit (35% of funds)</td>
</tr>
<tr>
<td></td>
<td>Expressway management is streamlined through establishment of VEMA by 2011.</td>
<td>(ii) Projects in the Pipeline with Estimated Amounts</td>
</tr>
<tr>
<td></td>
<td>Road maintenance fund is established by 2011 and a PPP project is commenced by 2015.</td>
<td>GMS expressway projects ($1.1 billion)</td>
</tr>
<tr>
<td></td>
<td>Traffic accident fatalities reduced by 23–30% by 2015 (2007 baseline: 12,800)</td>
<td>Ha Noi and HCMC MRT projects ($1.5 billion)</td>
</tr>
<tr>
<td></td>
<td>Environmental protection standards related to road transport is developed. (2010 baseline: null)</td>
<td>(iii) Ongoing Projects with Approved Amounts</td>
</tr>
<tr>
<td></td>
<td></td>
<td>GMS expressway projects ($1.1 billion)</td>
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<td>GMS railway project ($160 million)</td>
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</tbody>
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**ADB** = Asian Development Bank, **GMS** = Greater Mekong Subregion, **HCMC** = Ho Chi Minh City, **MRT** = mass rapid transit, **VEMA** = Vietnam Expressway Management Administration

Sources: Decision No.1327/QD-TTg, 24 August 2009. Approval of Vietnam Road Transportation Development Plan by 2020 and Vision toward 2030. Ha Noi; ADB. Key Indicators 2009. Manila; and Asian Development Bank estimates