



# VIETNAM'S INFRASTRUCTURE CHALLENGE

Workshop Edition

## Transport Strategy Transition, Reform, and Sustainable Management



The World Bank in Vietnam  
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## VIETNAM'S INFRASTRUCTURE CHALLENGE

As Vietnam becomes richer it faces challenges in adapting its infrastructure policies and institutions. While the old challenges of providing basic services to all remain, new challenges are emerging, such as accessing new sources of finance, refining planning processes, preparing for rapid urbanization, improving the efficiency of infrastructure service providers, developing stronger institutions to encourage private finance of infrastructure or direct private provision of infrastructure, and developing more targeted approaches to poverty alleviation.

This report on Transport Strategy – Transition, Reform, and Sustainable Management is one of six volumes dealing with *Vietnam's Infrastructure Challenge*. Other volumes deal with Infrastructure Cross Sectoral Issues, Water and Sanitation, Electricity, Telecommunications, and Urban Development. The work for these volumes was carried out between 2004 and 2006 by World Bank staff and consultants.

This workshop edition of the report has been prepared as a means of inviting feedback on its contents from the Government and other stakeholders, prior to final publication.

## *Part I*

# Overview

### Introduction

***Solid contribution to growth and poverty reduction.*** The transport sector has contributed positively to the economic growth of Vietnam over the past decade and has helped reduce poverty directly through better linkages to markets, education and health facilities and indirectly through its contribution to growth. This is evident from surveys indicating that investment location in northern Vietnam, for example, was heavily influenced by transport improvements. The impact on poverty reduction is reflected in studies showing that investing 1% of provincial GDP in transport infrastructure could reduce poverty by 0.5%-1.0% and that an investment of US\$50 million in transport in the 15 poorest provinces could reduce poverty by 6%-7%.

***Some old challenges remain; some new ones emerge.*** The rapid growth in transport infrastructure and services over the past decade has created new demands and challenges for the transport sector. Fast economic growth has contributed to high rates of urbanization, rising

traffic accident rates, new capacity constraints, and a large increase in asset preservation requirements to meet the fast expansion of transport assets. Other impediments reside in the sector's policy, planning, budgeting, regulatory, and implementation frameworks. While these institutional issues have no doubt resulted in some inefficiency in resource allocation and service delivery in the past, they have not held back the progress of the sector whose primary objective was a massive rollout of infrastructure.

The figure below summarizes the results of a recent review assessing the effectiveness of transport policies, legislation, regulations and their implementation, highlighting areas where attention is needed. Three issues stand out: the road sector, which typically receives 80%-90% of the national government funding for the transport sector, fares poorly with respect to policy and policy implementation; the urban transport policy environment needs significant improvements; and implementation regulations in general are weak, a limitation that cuts across many of the sub-sectors.

	Market entry/licensing	Competition/SOE role	Safety/environment	Planning/investment	Pricing/cost recovery		Legislation	Implementing regulations	Implementing mechanisms	Outcome/ overall performance
Road Transport Services	✓	✓	✗	n.a.	✓	□	✗	□	✗	✗
Road Infrastructure	n.a.	n.a.	✗	✗	✗	□	✗	□	✗	✗
Ports and Related Infrastructure	□	□	✓	✗	□	□	✓	□	✗	□
Railway Services & Infrastructure	□	□	□	□	□	□	✓	□	□	□
Urban Transport	□	✗	✗	✗	□	□	□	□	□	□
Inland Water Transport Services	✓	✓	□	n.a.	✓	□	✓	□	□	□
International Shipping	✓	✓	✓	n.a.	✓	□	✓	□	□	✓
Coastal Shipping	□	□	✓	n.a.	✓	□	✓	□	□	✓
Inland Waterway Infrastructure	n.a.	n.a.	□	✗	✗	□	✓	□	✗	□
International Air Transport Services	✓	✓	✓	✓	✓	□	✓	□	□	✓
Domestic Air Transport Services	□	□	✓	✓	✓	□	✓	□	□	✓
Air Transport Infrastructure	□	□	✓	✓	□	□	✓	□	□	✓
Multimodal Transport	✓	✓	n.a.	n.a.	n.a.	□	□	□	□	□

✓	Good	✓	In progress
□	Fair	□	In progress
✗	Poor	n.a.	Not applicable/significant

## TRANSPORT SECTOR GOALS

To continue to support rapid economic growth and further contribute to poverty reduction during the next stage of Vietnam’s economic development, the transport sector will need to overcome its challenges and work toward achieving five broad goals: (1) enhancing efficiency in both resource utilization and service delivery, (2) establishing a sustainable financing framework for the sector (3) facilitating sustainable urban growth, (4) managing the negative impacts of transport;

and (5) developing institutional and human capacity to respond to the sector’s evolving needs.

**1. Enhancing Efficiency in Resource Utilization and Service Delivery** will require a number of actions by GoV:

*A results-oriented integrated planning process.* There tends to be a gap between broad government strategies and detailed sectoral plans and little coordination between spatial and economic development plans. Moreover a

fragmentation of responsibilities for developing plans often results in long “wish lists” of projects many of which are not consistent, viable or funded. A results-oriented planning process at both the national and provincial levels would help align sector and national goals towards the desired outcomes. Under such a framework, MoT and other responsible agencies would define measurable outcomes reflecting sector goals and ultimately resulting in specific projects and reforms to achieve these goals.

At present, the planning process at both national and provincial levels can also be characterized by suboptimal resource allocation. There is misallocation (i) between new investment and maintenance; (ii) among modes with the inland waterways receiving a significantly smaller share of funding than is commensurate with their important role; and (iii) in the selection of investments within each sub sector.

The ongoing Medium Term Expenditure Framework (MTEF) pilots could help remedy many of the problems in the planning process by removing the rigidities in resource allocation and strengthening integrated planning. This would require the establishment of sound criteria for prioritization in the MTEF and the empowerment of the Inter-Ministerial Task Force established to oversee the implementation of the pilots.

***Investing in asset preservation.*** While government transport strategies and plans highlight maintenance as a priority, the amount of resources allocated to road maintenance indicate otherwise with at most 50% of the necessary maintenance expenditures being made at both national and local levels. The deferred maintenance coupled with the high rate of investment in new transport

infrastructure over the past five years would suggest that expenditures on maintenance will have to grow faster than those on capital investment to ensure that the country’s transport infrastructure is not run down. Simulations show that if expenditures on national road maintenance remained at their “current” levels over a 10 year period, the condition of the network would substantially deteriorate with about 34% being in poor condition including 55% of the high traffic volume network. Although a 10-year strategic plan for national road maintenance has been developed using HDM4 models, and has been approved by the Prime Minister, it is still not being used in the preparation of annual maintenance work programs. While the MTEF can provide some flexibility in shifting resources from new investment to maintenance, this will not eliminate the need for developing an asset preservation framework and for implementing the strategic plan for national road maintenance.

***Multimodal transport and modern logistics for trade led growth and efficient distribution.***

Vietnam’s economic growth requires efficient multimodal and logistics services to support both international trade and internal distribution. These services are currently at their infancy in Vietnam. Logistics costs,



assessed to be roughly similar to China, are high at about 15%-20% of GDP, double the cost in industrialized countries. A significant proportion of this cost is associated with holding inventories, a result of under developed logistics systems. Reducing the logistics cost by 10% would result in resource savings equivalent to 1.5%-2.0% of GDP.

A recently completed Multimodal Transport Regulatory Review (MTRR) in Vietnam indicates that new and revised laws and regulations provide a good facilitating environment but implementation mechanisms need to be strengthened and clarified. A common understanding between the Ministries of Transport, Trade, and Planning and Investment on the definition and coverage of logistics services as referred to in the 2005 Commerce Law is lacking. Coordination between the three ministries is necessary before the implementing regulations for the Commerce Law are finalized.

The role of MoT's Transport Department in integrated multimodal transport planning needs to be clearly defined, and the department's capacity strengthened. To help increase the efficiency of the logistics industry, MoT may wish to encourage logistics providers to establish a National Logistics Forum (NLF) financed by its members to identify the industry's needs and to consult with the government on the appropriate course of action. One of the first tasks of the NLF could be the definition and estimation of a Logistics Index to be updated annually to better monitor logistics costs. As a counterpart to the Forum, an Inter-Ministerial Logistics Committee would help liaise with the Forum as well as coordinate government policies affecting logistics and multimodal transport. The mandate of the GMS Transport Facilitation Committee could be broadened to enable it to play the role of the proposed Inter-Ministerial Committee.

***SOE reforms are key to an efficient sector.*** MoT's debt has been recently estimated at VND 19.5 trillion, about 1.5% of the country's GDP. This figure excludes the debt that has been accumulated at the provincial level. State banks have provided loan rollovers as in many cases the interest payments due are in excess of the borrowing enterprise's capitalization. The current debt situation of construction SOEs and their urgent and serious need for financing forces them to submit low "survival" bids to secure contracts, a practice which ultimately results in low quality works and delayed implementation. Moreover, current practices coupled with a lack of performance incentives do not foster a competitive, transparent or efficient operating environment.

MoT has some elements of a phased equitization plan for its SOEs in place. The objective of equitization, the methodology for enterprise selection and the details need to be clear and transparent. It is essential to account for the debt situation of the SOEs accurately and for the government to explain the basis for bailing out some SOEs, as is likely to happen, and for letting others go bankrupt. A firm timetable for this process together with strict monitoring of its implementation by an interagency taskforce from MoT and MoF (and possibly others) increases the possibility of success of the SOE equitization and reform program and the chances of achieving the desired implementation efficiencies.

***The benefits of a sound regulatory framework will not be achieved without clear and transparent implementing regulations.*** The recently completed regulatory review (MTRR) shows that the transport laws passed in the past few years provide a sound basis for the efficient operation of transport sub sectors. Nonetheless, the implementing regulations for these laws require strengthening to ensure that the

principles of competition and transparency govern all business and investment licensing matters, and that private sector participation, both domestic and foreign, is encouraged to enhance operational and managerial efficiency and quality, and increase investment.

Full efficiencies in the ports and maritime sub sector, in particular, are not being fully exploited as there is still no clear delineation between development, operations and regulation. While Cai Lan port is being operated under a concession, this was awarded to a state owned company on the basis of a negotiated contract without the benefit of competitive selection.

***Paving provincial and rural roads?*** An issue of significant financial and economic consequence is the paving of provincial and rural roads to avoid the annual financial burden of maintaining unpaved roads. The decision whether to pave the roads or not should be based on a life cycle cost analysis of the different alternatives taking into account the different topographic and climatic conditions of each location. The decision should not be influenced by the ability to secure one time State budgetary allocations from the national government. This practice, which distorts decision making, needs to be reconsidered and abandoned.



## **2. Establishing a Sustainable Financing Framework for the Sector** - Strict

expenditure controls coupled with an increase in resource mobilization for the sector are essential for adequate and sustainable funding.

### ***A fiscally-constrained programming process.***

The government of Vietnam made investment in transport infrastructure a key priority in its 2001-2005 PIP and expenditures reached 4.5% of GDP in 2002, a relatively high figure by most regional and international standards. However, 35% of total central transport expenditures were approved by the Prime Minister but not allocated funding resulting in a critical and unsustainable debt situation for many state-owned construction companies. While such expenditure levels can be justified and indeed are necessary during periods of heavy rebuilding, programming needs to be fiscally constrained within the available resource envelope.

Expenditure controls can be established by making the availability of financing a requirement for approving projects at both national and local levels and by replacing the current lax requirements for lending by some SOCBs by rigorous commercial criteria. The MTEF could play a role towards achieving these objectives by ensuring that the proposed investment outlays fall within the available resource envelope.

### ***An agenda for resource mobilization.***

Nevertheless, it is highly unlikely that the recent expenditures levels can be sustained in the long run, not only because of the unsustainable SOE debt situation but also because 37% of central transport expenditures are being financed by concessional ODA that may no longer be available by the end of the decade and that will be, to some degree, replaced by competitively priced loans.

In defining an agenda for resource mobilization, it is important to distinguish between two different levels in the financing framework:

The first level involves the ultimate payers for the infrastructure and associated services. These are typically the direct beneficiaries, and the general public paying through government taxes and other revenues. A toll road provides an example where users may pay the full cost, or only a share with the government (general public) paying the shortfall. To this extent, increasing the share that is paid by the beneficiaries of a road, (or port or bus service) would reduce the share paid by the government. Mechanisms for mobilizing resources from beneficiaries in return for improvements to transport services and infrastructure include increasing user charges (by raising existing levels or reducing the fuel subsidy and using the savings). Another avenue would be to capture a proportion of the increase in land values associated with large transport improvements.

The second level deals with the financiers of the infrastructure. Infrastructure can be financed by the government (central or local) or by the private sector. The central government has financed the vast majority of national-level infrastructure mostly through the budget but also by issuing a significant amount of bonds (30% of MoT's projects between 2001 and 2005 were financed by government bonds). Municipal finance, which includes government bonds and local development investment funds (LDIFs), is being utilized with some success in Vietnam's two largest cities. It is important to realize, however, that for most other cities and provinces, it will take several years before LDIFs can become an important contributor to the financing of infrastructure. It may be more practical and sustainable at this point to consider local development funds established at a regional level. The sustainable growth of this

source of financing requires strong governance and an arms length relationship with the Provincial Peoples Committees. For both national and municipal bonds, when financing extends beyond toll roads, or other assets that can generate sufficient revenues to cover their costs, a careful analysis of the fiscal capacity of the government is necessary.

Another important source of finance is the private sector. The contribution of private capital to the financing of transport infrastructure in Vietnam remains low. This source of financing can play a more prominent role in financing highways and expressways, and the development and upgrading of ports and airports. There are two main advantages to involving the private sector. The first is that mobilizing resources relieves some of the pressure on the scarce budgetary resources and reduces the need for additional government borrowing. The second is that the private sector is better positioned to bear certain risks. Key to tapping this source is the development of a framework for private participation. The framework needs to set the principles for efficient risk sharing, to define how contingent liabilities will be managed, and to identify appropriate institutional and regulatory structures. Within the parameters of the framework, the different models of private participation can be considered and used. It is recommended that the framework evolve gradually over time starting with a series of simple projects and building on the gained experience.

### **3. Facilitating Sustainable Urban Growth**

Hanoi and Ho Chi Minh City alone contribute more than one quarter of the country's GDP. Consequently, it is essential that Vietnam's major cities have an efficient transport system to continue to support the country's economic

growth. The predominant challenge for Vietnam's major cities in the coming decades will be facilitating spatial growth for future urbanization. Successful development of affordable and efficient, high capacity, public transport systems—bus based systems in the short term, with a role for urban rail in the longer term—that ensures high quality access to commercial areas and central business districts, will be critical to facilitate continued urban growth. An urban planning focus is essential to ensure that growth is coordinated along high density corridors and that the benefits of investments in public transport and road infrastructure are complementary. This would also help avoid the severe congestion that would result from unstructured peri-urban growth.

However (a) rigidities in the planning process, (b) the lack of metropolitan/regional institutions that can coordinate between local governments to enhance development across jurisdictional boundaries and (c) weaknesses in the regulatory capacity hamper a coordinated planning approach. Moreover, the absence of a well functioning land market, despite some progress in recent land reforms, distorts land prices and complicates the planning process. A results-based approach that provides incentives to identify incremental low-cost solutions given fiscal constraints, and a strategic review of the resource mobilization framework to identify ways in which cities can develop revenue bases that reflect the growth in the underlying economy are as important for the cities as they are at the national level.

A framework for the sustainable development and operation of public transport system needs to be developed. At present, bus routes in Hanoi, for example, are allocated to operators in an ad-hoc manner even though operators receive significant subsidies.



Subsidies are based on regular, detailed cost audits despite the limitations of such a system. A recommended alternative would be to award bus routes on the basis of fixed-term contracts established by competitive bidding.

Municipal governments in both HCMC and Hanoi subsidize both bus purchase and operations. The sustainability of these subsidies is in question. In 2003, revenues generated by public bus services in Hanoi covered less than 50% of their operating costs and the gap is expected to further widen as ridership increases. There is some potential to reduce operating costs but it will be difficult to recover operating and investment costs without increasing fares. While, at present, there is a strong political will in both Hanoi and HCMC to underwrite the promotion of public transport with public subsidy, if the subsidies continue to grow at the projected rates, it would be necessary to ensure that the deficits/subsidies can be sustained. These need to be forecasted and sources for financing the deficits identified.

**4. Managing the Negative Impacts of Transport** is essential for the sustainability of the sector. Poor traffic organization remains a critical issue contributing to accidents, congestion and consequently air pollution, despite concerted

efforts in both Hanoi and HCMC focusing on safety and traffic management.

Positive road safety management steps are being taken in Vietnam. Some performance targets have been set, a National Program on Traffic Safety (NPTS) was developed and a comprehensive program of work has been specified. Nevertheless, accidents and fatalities remain a problem, particularly the high levels of motorcycle-related accidents in Hanoi and HCMC. While the death toll of 9.4 per 10,000 vehicles in 2003 compares favorably to other countries in Asia, data collection of traffic accidents is not yet adequate and the real number of casualties is likely to be much higher. About 80% of all accidents in 2003 were caused by poor driver behavior, and about one half of road accidents were on national roads particularly those passing through populated areas and one quarter occurred on urban roads. The “urbanization” of road space in Vietnam remains a major contributing factor to high accident rates as many people live within a few meters of the road side.

Implementation is still weak and fragmented. There are gaps in the proposed NPTS and an absence of clear priorities for action based on a strategic analysis of the problem. Proposed activities and interventions lack adequate finance, proper coordination and planning. In some cases they do not adequately reflect good practice. A statute in the law that provides a waiver to motorcycle users from an obligation to wear helmets inside city limits is inconsistent with the government policy in this regard, particularly when intra cerebral hemorrhage (common to motorcycle accident victims) was considered a major cause of hospital death in Vietnam in a study carried out a few years ago. There is a need to step up the implementation of the Traffic Safety program.

There is a perception that international good practice is not completely transferable. The situation is exacerbated by the lack of a culture of traffic management. Such a culture is currently inhibited by excessive fragmentation of responsibilities between different elements of the Public Works Department (responsible for planning, designing, implementation and some elements of enforcement) and the traffic police (responsible for operations and most enforcement). Efforts to control congestion by limiting motorcycle ownership in the urban districts of Hanoi and HCMC by fiat are not equitable and have not proven to be effective.

Though Vietnam has successfully phased out lead from gasoline, both Hanoi and HCMC have air quality problems. Analysis of available data from Hanoi suggests that transport is a significant contributor to particulates (PM10 and PM2.5), Ozone formation and locally to Carbon Monoxide (CO) and old motorcycles and diesel trucks are the biggest polluters in aggregate. Though some policies are in place to inspect and control emissions from four-wheeled vehicles, motorcycle emissions are uncontrolled. To control pollution, both Ha Noi and Ho Chi Minh City need to develop a better understanding of transport’s contribution to pollution and as appropriate develop control strategies including promotion of non-motorized modes for short trips and the



development of inspection and maintenance programs.

## 5. Developing Institutional and Human Capacity to Respond to the Sector's Evolving Needs

***A long term capacity development framework to support the necessary reforms.*** The accomplishment of the transport sector's goals requires significant capacity development. To avoid ad hoc and incomplete institutional reform and capacity development initiatives that are often not very effective, a comprehensive capacity development framework with a realistic long term view for implementation needs to be prepared. This would address needs at three main levels: the enabling environment (policies and laws)-building on the findings from the recently completed regulatory review, organizational development, and human resource development.

Resettlement is considered one of the largest contributors to implementation delays in transportation projects. Through various decrees and laws, however, GoV has considerably improved its resettlement policies and continues to work on remaining issues.

***Strengthen implementation capacity.*** With some exceptions, implementation of works has often suffered from inefficiency and low quality. This can be attributed to the weak performance of PMUs, contractors and supervision consultants and the lack of a clear definition of accountability and oversight roles. There is no incentive system that would encourage efficiency and timely implementation. Performance is not assessed against well defined targets and the criteria for selection of central and provincial PMUs to manage the implementation of new projects are unclear. This issue, which has not received the necessary government attention, needs to be addressed with some urgency to avoid significant losses in resources. Even in the

presence of a sound incentive system, the current system of project management through PMUs has a fundamental weakness when it comes to long term capacity development in MoT. While timely and satisfactory project implementation is an important goal for GoV and development partners alike, building capacity in the line ministry is even more important for the sector's development and projects' sustainability. The latest version of the construction law recommends moving PMUs under the modal administrations such as VRA and VIWA. A transition plan needs to be prepared and the process started as soon as possible.

A major contributor to the low quality of infrastructure is the limited effectiveness of supervision consultants. PMUs do not typically empower them. They are often bypassed with SOE contractors reporting directly to PMUs and sometimes even to upper levels of management at MoT. To help ensure good quality of implementation, the role of the PMU as representative of the Client, the supervising engineer and the contractor should be clearly defined and adhered to.

***Better governance framework.*** Collusion in procurement of services is a concern that leads to higher construction costs and, often, low quality works. Evidence from procurement associated with World Bank transport projects suggests that the fully competitive award of contracts has not been achieved. GoV is aware of the problem and is undertaking several measures to limit collusion by increasing transparency, by providing for a complaint mechanism in the new draft law, as well as by encouraging community participation in local decision making processes.

## TWO PRIORITIES

The proposed recommendations for the sector are interlinked and the success of one component is often dependent on the success

and progress of others. Moreover, the degree of difficulty, necessary resources and time horizon for accomplishing the reforms vary from one component to another. Given the financial and, more importantly, the institutional capacity constraints, facing GoV and MoT, short run priorities need to be specified within a larger reform framework to ensure consistency in timeliness in implementation.

As such, the two urgent priorities are (a) the SOE reforms that would enhance sector efficiency and financial sustainability, and result in better quality of works, and (b) the development of an effective maintenance framework to avoid the large losses of resources that Vietnam has invested in its transport infrastructure over the past decade.

## *Part II*

# Policy and Institutional Framework<sup>1</sup>

### A. Sector Objectives

The government's objective for the sector is to develop a modern transport system that provides high quality services and efficient and affordable transport and ensures transport safety and sound environmental practices.<sup>2</sup>

### B. Key Strategy and Policy Considerations

The 2004 Transport Sector Development Strategy (TSDS) to 2020 supports Vietnam's various economic development plans, notably, the ten year (2001-2010) Socio Economic Development Strategy (SEDS) and the Comprehensive Poverty Reduction and Growth Strategy (CPRGS). SEDS identifies the upgrading of Highway No. 1 and the construction of the Ho Chi Minh Highway as two priorities and strongly endorses the development of public transport services and long term transport planning in large cities. SEDS also cites the rising rate of traffic accidents as a concern. SEDS' emphasis and priorities differ within Vietnam's 3 focal economic zones and 8 regions. The main elements of the TSDS are:

- A balanced approach to transport development capitalizing on the country's geographical shape.

- Prioritization of maintenance and upgrading of existing assets.
- Prioritization of rural transport infrastructure especially in mountainous and remote regions.
- Prioritization in new investment to the north-south backbone, important economic zones, large urban areas and key links to neighboring countries.
- Prioritization in the urban sector to mass transit.
- Increasing the local content in ship and automobile construction and repair.
- Increasing the share of domestic enterprises in the international transportation of Vietnamese goods.

TSDS lists several policies to govern the implementation of the development strategy. These include:

- Targeting domestic and foreign sources of finance, both private and public, and charging users for the construction and maintenance of infrastructure when possible.
- Encouraging private sector participation by speeding up the equitization of state-owned enterprises and separating state management from operations and business.
- Ensuring transport safety and environmental

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1. This section summarizes a few of the key aspects of the policy and institutional frameworks. The details of the frameworks are presented in Annex 1.

2. Adapted from "Vietnam's Transport Development Orientation for the Next Decades" on MOT's website: <http://www.mt.gov.vn>.

- protection in transport related business.
- Utilizing new technologies and processes in construction and operations.

## **C. Governing Sectoral Policies and Plans; and Laws and Regulations**

### ***Road Infrastructure and Transport Services***

Prime Ministerial Decision (PMD) 162/2002 which sets out the government's policy for the national, provincial, urban and rural roads contains some general statements on the aim to enhance maintenance capacity, but the focus is on new infrastructure needs, particularly for national roads. The Decision states that all national and provincial roads will be sealed by 2005 and 2010 respectively, lists over 1,400 kms of 4/6 lane expressways to be built by 2010 and that 90% of all rural roads will be all-weather roads by 2010. The policy statement contains relatively little about sources of finance. It foresees the use of tolls and an additional fuel tax and identifies a number of steps to attract further ODA and FDI. The Decision states the intention to consider the formation of a Road Maintenance Fund, which was opposed by the Ministry of Finance as it appeared broadly defined in scope as a Transport Sector Fund.

### ***Urban Transport***

Developing policy for urban transport is the responsibility of the cities subject to central government approval for major plans and investments. Urban transport policies are devised to support cities accommodate the significant increases in population particularly in HCMC and Hanoi which are forecast to triple their populations between 2000 and 2020. PMD 162/2002 sets some targets for urban roads for Ha Noi, Ho Chi Minh City and medium size cities for the short, medium and long term. For Vietnam's two largest cities, the strategic foci are to promote and develop public transport,

and to develop road infrastructure to alleviate congestion, and open up new areas for urbanization.

### ***Maritime and Shipping***

The government's strategy is to rehabilitate existing key facilities, focus on the construction of deepwater ports at the focal economic zones to serve vessels over 30,000 DWT while also developing small scale satellite ports to serve the local economy. Two of the government's key projects are Van Phong, a transshipment port in Khanh Hoa in central Vietnam and Cai Mep, a deep sea port in Vung Tau to serve southern Vietnam. The rehabilitation and construction of a total of 114 ports in 8 port complexes is planned by 2010. As a matter of government policy, the construction of new ports or berths that would compete with existing national ports is prohibited. The



Government also plans to develop its fleet of container vessels and tankers, and ship building facilities. A new maritime code was approved by the National Assembly in 2005 and came into effect in January 2006.

### ***Inland Waterways***

The government's objectives for the sector include the modernization of inland waterway navigation to meet international standards and the building of inland waterway vessels. A master plan for the development of Vietnam's inland waterway system through 2020 lists landing stages and ports that will be upgraded and equipped with modern loading equipment (targeting at least one port/landing stage per province, mostly in the South) and identifies several waterway channels for improvement and upgrading. The sector is governed by the 2005 Law on inland waterway navigation. The implementing regulations have not been finalized yet.

### ***Railways***

Prime Ministerial Decision 34/2003/QĐ-TTg issued in March 2003 established the state-owned Vietnamese Railway Corporation (VRC) to operate the railways. Decree 34/2003/ND-CP issued in April 2003 placed the policy and regulatory functions within the Vietnam Railway Administration (VNRA), a modal administration under MoT. VNRA is responsible for the development of the rail sector and also oversees the performance of VNC. The new railway law that was passed by parliament in June 2005 provides a framework for separating infrastructure and operations, and for the possible operation of trains by third

parties. The implementing regulations have not been finalized yet.

### ***Civil Aviation***

PMD No. 206/2004/QĐ-Ttg identifies the upgrading and expansion of existing international and domestic airports, and the building of new ones as objectives for the sector. Specific airports throughout the country are mentioned in the Decision. The construction of Long Thanh International airport in Dong Nai province to replace Tan Son Nhat airport in Ho Chi Minh City at the estimated cost of US \$3 billion for the first phase (2006-2010) is the largest airport project currently under consideration.

### ***Multi Modal Transport***

MOT stresses the goal of organizing "optimum transport conditions on the entire network by properly distributing modes of transport and using advanced technologies, especially multi-modal transport technology in cargo handling".<sup>3</sup> Government Decree No. 125/2003/ND-CP of October 2003 stipulates the scope and regulations for international multi-modal activities carried out by national and foreign entities. Certain articles of the Commerce Law also define rules for commercial activities relating to logistics services; and a number of decisions define customs procedures relating to the movement of goods by international multi modal transporters, as well as to vessel movement.

Table A1 in Annex 1 provides the main legal and regulatory provisions governing the transport sector in Vietnam.

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3. "Vietnam's Transport Development Orientation for the Next Decades" on MOT's website: <http://www.mt.gov.vn>

## **D. Planning and Programming**

The Ministry of Transport (MoT) has the responsibility for planning, managing and maintaining national transport infrastructure, and for assisting local governments in project selection. MoT prepares long term transport strategies, 5 year plans for inclusion in the Public Investment Program and one year plans for inclusion in the annual State Budget. While

transport strategies generally transcend local government boundaries, the 5-year and annual plans prepared by MoT are limited to national infrastructure.

The details for planning and programming are presented in Annex 1. Figure A1 and Table A2 in the annex respectively present key government institutions related to the transport sector; and the key players involved in the transport sector and the roles they play.

### Part III

## Sector Structure and Ownership<sup>4</sup>

### *Increasing Demand for Transport<sup>5</sup>*

The demand for transport grew slightly faster than GDP between 1999 and 2005. Annual growth in freight and passenger demand measured in ton/passenger km was 10% over this period (see Table 1). Road remains a dominant mode, accounting for 65% of tons moved but coastal shipping accounts for 76%

of all ton-km due to its dominance in long-distance movements. Reflecting Vietnam's large growth in trade, the annual throughput of sea ports doubled from 56 million tons in 1998 to 114 million tons in 2003. Cargo through southern ports in 2000 exceeded the forecast made two years earlier in the National Transport Development Strategy (VITRANSS) by 50%.

**Table 1.**  
**Domestic Transportation Volume 1999-2005**

Mode Goods Transport	1999				2000				2005				Increase in ton-km (%)
	1000 tons	%	Mil ton-km	%	1000 tons	%	Mil ton-km	%	1000 tons	%	Mil ton-km	%	
Railways	5,033	3.6	1,397	3.1	8,133	4.2	2,664	4.2	8,838	2.7	2,948	3.6	13
Roads	83,354	60	5,701	13	116,759	61	7,684	12	211,556	65	11,262	13.9	12
Waterways	35,826	26	3,589	8	46,056	24	4,590	7.3	69,933	22	4,785	5.9	5
Coastal ways	15,910	11	34,240	76	21,042	11	47,616	76	33,798	10	61,872	76.3	10
Aviation	42	0	102	0.2	90	0	257	0.4	104	0	229	0.3	14
<b>Total</b>	140,166	100	45,028	100	192,080	100	62,810	100	324,229	100	81,096	100	10
Passenger Transport	1999				2000				2005				Annual Increase in pass- km (%)
	1000 pass.	%	Mil pass- km	%	1000 pass.	%	Mil pass- km	%	1000 pass.	%	Mil pass- km	%	
Railways	9,252	1.4	2,721	9.3	11,564	1.4	4,069	10	12,778	1.0	4,582	8.6	9
Road	554,523	84	19,671	67	727,286	85	25,827	65	1,076,467	85	34,436	64.6	10
Waterways	89,745	14	2,702	9.2	110,255	13	2,781	7	169,336	13	3,420	6.4	4
Coastal ways	800	0.1	84	0.3	870	0.1	70	0.2	2,523	0.2	189	0.4	14
Aviation	2,731	0.4	4,116	14	4,503	0.5	7,021	18	6,339	0.5	10,670	20.0	17
<b>Total</b>	657,050	100	29,293	100	854,477	100	39,767	100	1,267,443	100	53,297	100	10

*Source: Vietnam, Managing Public Expenditure for Poverty Reduction and Growth, Public Expenditure Review and Integrated Fiduciary Assessment, Volume II Sectoral Issues. General Statistic Office*

4. This section provides a summary of the sector structure. For more details see Annex 2.

5. This section is adapted from "Vietnam, Managing Public Expenditure for Poverty Reduction and Growth, Public Expenditure Review and Integrated Fiduciary Assessment", Volume II Sectoral Issues, Page 29.

**Table 2.**  
**Network Size and Ownership Structure for Infrastructure and Service Providers**

Sector	Scale	Construction		Operations
		Management	Implementation	
<b>Roads</b>				
National	17,300 km	MoT's PMUs	SOEs under MoT's Ciencias, provincial SOEs, private sector companies.	Trucking services provided by SOEs and private sector companies.
Provincial	17,449 km	Provincial PMUs;	Provincial/District SOEs and	
District	36,372 km	MoT's PMUs for	private sector construction	
Commune	131,455 km	ODA supported	companies	
Total		projects.		Commune labor used for maintenance of commune roads
<b>Urban Transport</b>				
	Hanoi: 691 buses, capacity: 40,500 (2004) HCM: 2961 buses (June 2005)	PMUs under TUPWS and cities.	SOEs attached to MoT, TUPWS and cities.	Bus services are provided by TRANSERCO, a state owned operator under Hanoi's People's Committee, and by private operators in HCMC (the largest two operators are Saigon Bus, an SOE and Saigon Star, a joint venture). HPC is about to introduce private operators.
<b>Railways</b>	2,632 km 300 locos	Railway PMU implements investment projects	SOEs under VRC.	Vietnam Railways Corporation (VRC) operates two passenger companies and one freight company
<b>Inland Waterways</b>	8,000 km under national mgmt; 1,800 km under local mgmt; 83,000 boats (3.7 mil dwt)	MoT's PMU-W and VIWA's PMU	SOEs attached to MOT and provincial governments	<ul style="list-style-type: none"> <li>Large barges are owned and operated by both SOEs and the private sector.</li> <li>Small country boats are private sector owned and operated.</li> </ul>
<b>Ports and Shipping</b>	80 ports 928 vessels (1.8 mil dwt)	PMUs implement new investment projects	SOEs under the Waterway Construction Corporations and the CIENCOS.	<ul style="list-style-type: none"> <li>The majority of ports and landing stages operated by provinces; a few key river ports operated by VIWA.</li> <li>VINALINES operates the major ports (Hai Phong, Danang, Saigon, Can Tho).</li> <li>Shipping and freight forwarding services offered by SOEs, private companies and joint ventures with foreign companies.</li> </ul>

Rail plays a less significant role, although in terms of ton-km its share increased from 3% to 4%, taking market share from both roads and waterways, and registering the second highest growth rate between 1999 and 2003. Inland waterways have seen their market share fall over the period, partly because of improved alternatives but also because of lack of investment in that sub-sector. Although starting from a low market share, air transport has also seen its share for both passengers and goods increase significantly between 1999 and 2005. Cargo moved by air seems to be traveling relatively shorter distances as ton-km dropped slightly between 2003 and 2005 despite an increase in total tonnage during that period.

### *Transport Infrastructure and Services*

Transport infrastructure in Vietnam continues to be nearly exclusively provided, owned, financed, built and operated by the public sector, either directly through the government or by way of quasi-independent SOEs. Whether the responsibility for the infrastructure lies with the national or local government typically depends on the level of government that financed and built the infrastructure. Private investment in the sector has been very low accounting for less than 2% of total capital expenditures on transport during the last decade.<sup>6</sup>

Transport services include a mixture of private and public operators depending on the sub sector. All rail services in the country are currently provided under public ownership. Most ports remain vertically integrated public operations in which the public sector owns and operates infrastructure and terminals. Many of the larger trucking and barge enterprises are also state owned. However, for the trucking and barging services there are also large and vibrant private sectors.

Table 2 presents a breakdown of transport assets by level of management, as well as the ownership structure for infrastructure and service providers.

The implementation of national transportation construction projects in all sub-sectors is managed by **Project Management Units (PMUs)**. Construction of national projects is typically carried out by SOEs attached to MOT and provincial governments as well as private sector companies. MOT has over 200 SOEs—most of which are grouped in 12 corporations (including the 5 **Civil Engineering Construction Corporations-CIENCOs**). The corporations act as holding companies only in an administrative sense but do not own their member SOEs. The primary activity of over 100 of these SOEs is construction. While in principle SOEs are independent business entities, in practice they are typically assigned tasks by MOT. Local level projects are carried out by provincial and district SOEs and private companies. All companies have to compete for their assignments under general bidding (or limited bidding) guidelines. It is believed that SOEs are awarded the majority of the tasks and often sub contract to private firms.

Private sector companies compete with **Transport Engineering Companies (TECs)** under TUPWS to undertake transport construction works in large cities. Small to medium maintenance jobs on national roads are awarded directly to **Regional Road Maintenance Companies (RRMCs)** within VRA's RRMUs. For large maintenance works, RRMCs compete against other SOEs. Local roads are maintained by provincial and district SOEs as well as private companies. Commune labor is used for maintenance of commune roads. TECs undertake maintenance works in cities.

Annex 2 provides more details on ownership structure for the sector.

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6. Contractual commitments between 1994 and 2003 totaled US \$125 million (US \$100 for ports, US \$15 million for an airport and US \$10 million for a toll road). Source: PPI database. These figures record investments promised at the time of contracting.

## Part IV

# Expenditures and Financing

### *High rate of growth in transport expenditures*

Table 3 shows that real expenditures on transport increased 21% per annum between 1994 and 2002. This both reflects the strong commitment of the Government to improve the transport system to support economic growth and is consistent with its policy to prioritize investments in transport infrastructure. During this period, transport expenditures grew three times as fast as GDP reaching 4.5% of GDP in 2002 and averaging 3.2% over that period.<sup>7</sup> The increase in transport expenditures is also evident in their rising share in total government expenditures from 7.8% in 1994 to 17.6% in 2002. While the average growth rate for the 1994-2002 period was 21%, there was tremendous fluctuation in the annual rates varying from a low of 6% in 2000 to a high of 50% the very next year. The large increase in 2001 transport spending is the result of the emphasis on transport infrastructure in the 2001-2005 Public Investment Program.

### *Local government expenditures growing fast*

The share of local governments in total

government transport expenditures increased from a low of 31% in 1998 to a high of 44% in 2002 (see Table 3) although these figures most likely underestimate local government shares.<sup>8</sup> The increase is consistent with the government's commitment to decentralize decision making in the sector and to emphasize development of rural access. Between 1994 and 2002, real expenditures on transport by local governments increased by 23% per annum, slightly higher than the rate at which national government expenditures grew (20% per annum). Reported expenditures on transport by local governments do not capture the whole picture as a recently completed Public Expenditure Review (PER) in Phu Tho and Vinh Long indicated that private contributions in the two provinces added another 25% and 7.5% respectively to reported local government expenditures on transport.<sup>9</sup>

### *Growth in recurrent expenditures not keeping up with capital expenditures*

Both capital and recurrent transport expenditures have experienced real growth over the past decade. Real capital expenditures grew more than three times as fast as recurrent expenditures

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7. There is a large discrepancy between expenditure figures sourced from MOT and those sourced from MOF. MOF's figures which reflect the formal State Budget are significantly lower than those of MoT indicating that MoT's expenditures are financed outside the scope of the formal budget. This issue is discussed later under "Sources of Financing".

8 The underestimation is due to the facts that Table 3 has been constructed using a hybrid data set: central transport expenditures from MoT and local transport expenditures from MoF and that MoF figures are significantly lower than those of MoT. When MoF figures are used for both central and local expenditures, the local government share increases to over 50%.

9. See section on financing local transport expenditures below for a further discussion of this issue.

**Table 3**

**Overview of Transport Sector Expenditures**  
**Billion of real 1994 Vietnamese Dong**

	1994	1995	1996	1997	1998	1999	2000	2001	2002	Avg*
<b>Total Transport Expenditures</b>	3,558	N.A	N.A	6,726	7,362	8,992	9,569	14,360	16,510	<b>9,582</b>
- Central Expenditures	2,163	2,857	2,828	4,583	5,047	5,679	6,005	8,325	9,318	<b>5,200</b>
- Local Expenditures	1,395	N.A	N.A	2,143	2,314	3,314	3,564	6,034	7,192	<b>3,708</b>
- Capital Expenditures	2,538	N.A	N.A	5,550	6,168	7,885	8,338	12,834	14,898	<b>8,316</b>
- Recurrent Expenditures	1,020	N.A	N.A	1,175	1,193	1,108	1,231	1,526	1,612	<b>1,266</b>
	<b>Percentage Growth</b>									
	<b>94-97 (annualized)</b>									
Total Transport Expenditures		24%			9%	22%	6%	50%	15%	<b>21%</b>
- Central Expenditures		28%			10%	13%	6%	39%	12%	<b>20%</b>
- Local Expenditures		15%			8%	43%	8%	69%	19%	<b>23%</b>
- Capital Expenditures		30%			11%	28%	6%	54%	16%	<b>25%</b>
- Recurrent Expenditures		5%			2%	-7%	11%	24%	6%	<b>6%</b>
	<b>Percent of GDP</b>									
	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>Avg*</b>
<b>Total Transport Expenditures</b>	2.0%	N.A	N.A	2.7%	2.8%	3.2%	3.0%	4.2%	4.5%	<b>3.2%</b>
- Central Expenditures	1.2%	1.5%	1.3%	1.9%	1.9%	2.0%	1.9%	2.4%	2.5%	<b>1.8%</b>
- Local Expenditures	0.8%	N.A	N.A	0.9%	0.9%	1.2%	1.1%	1.7%	1.9%	<b>1.2%</b>
- Capital Expenditures	1.4%	N.A	N.A	2.3%	2.3%	2.8%	2.6%	3.7%	4.0%	<b>2.7%</b>
- Recurrent Expenditures	0.6%	N.A	N.A	0.5%	0.5%	0.4%	0.4%	0.4%	0.4%	<b>0.5%</b>
	<b>Percent of Transport Expenditures</b>									
	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>Avg*</b>
- Central Expenditures	61%	N.A	N.A	68%	69%	63%	63%	58%	56%	<b>62.5%</b>
- Local Expenditures	39%	N.A	N.A	32%	31%	37%	37%	42%	44%	<b>37.5%</b>
- Capital Expenditures	71%	N.A	N.A	83%	84%	88%	87%	89%	90%	<b>85%</b>
- Recurrent Expenditures	29%	N.A	N.A	17%	16%	12%	13%	11%	10%	<b>15%</b>

\* Averages for transport expenditures expressed in VND and as percentages of GDP and total public expenditures (in the last column) do not take the values for 1995 and 1996 into consideration as they were not available.

\*\*Annualized average growth rate based on values in 1994 and 2002.

N.A.: Not available

Sources: 94-98 data from "Vietnam, Managing Public Resources Better, Public Expenditures Review 2000"; other central expenditure data from MoF; other local expenditure data from MoF; GDP data from World Bank Development Data Platform database: website <http://ddp.worldbank.org/ddp/home.do>

averaging 23% per annum between 1994 and 2002 compared to 7% for recurrent expenditures (see Table A8 in Annex 3). The difference is more pronounced for central government expenditures where capital expenditures grew at an average annual rate more than six times that of recurrent expenditures (25% versus 4%). While recurrent local expenditures grew at a reasonable real rate of 13%, their growth lagged behind capital expenditures that grew at an average rate of 24% during the same period.

Figure 1 shows the declining share of recurrent expenditures in overall transport spending by national and local governments between 1994 and 2002. One should note, however, that the figures are averages and that there is likely to be large variations among provinces.

**Majority of spending is on roads: the sub sectoral expenditure distribution**

Government expenditures on the road sub-sector far exceed those on all other transport sub

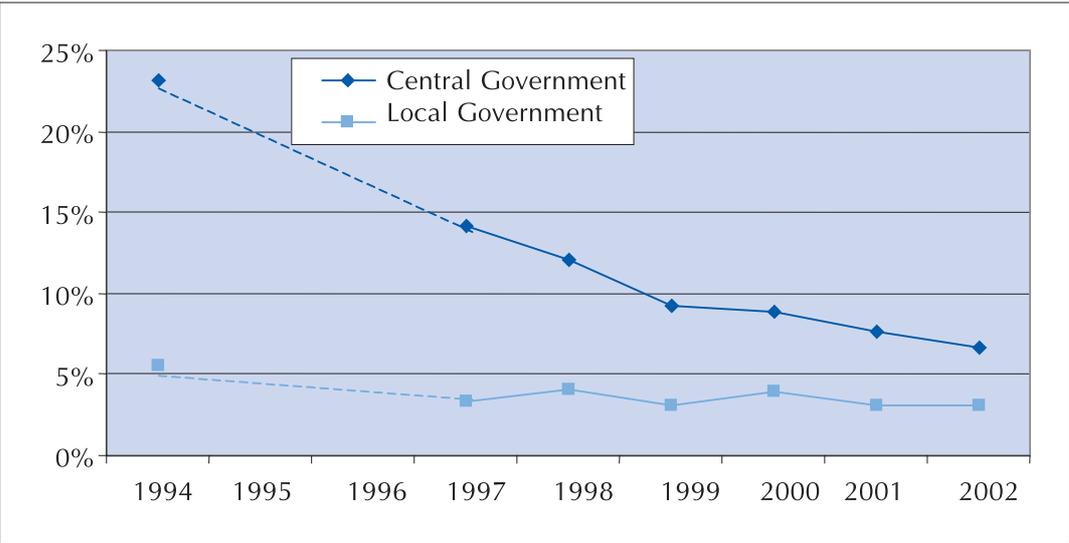
sectors combined averaging about 83% between 1994 and 2002. The share of the road sector has increased from 76% of the total in 94 to 88% in 2002 (see Table 4). The increase has been largely at the expense of the share of the rail sector which dropped from 13% in 1994 to 6% in 2002. The share of the maritime sector also dropped from slightly 5% in 1994 to 2% in 2002. The decreasing shares of the maritime and rail sectors can be attributed to the fact these sub sectors generate their own direct revenues which typically cover a certain percentage of their expenditures.

**Sources of Financing**

**Financing Central Government Transport Expenditures**

The 2005 PER shows that, between 1999 and 2002 the state budget has funded about 65% of total commitments in the sector through the annual budgeting process (see Table 5). The balance of 35% has been approved by the Prime

**Figure 1: Recurrent Expenditures as a Share of Total Transport Expenditures**



Data not available for 1995 and 1996.  
 Source: Own calculations based on 94-98 data from "Vietnam, Managing Public Resources Better, and Public Expenditures Review 2000"; other central expenditure data from MoT; other local expenditure data from MoF.

**Table 4.**  
**Government Expenditures on Transport**

Roads	76%	84%	83%	84%	88%	83%
IWW	1.4%	1.4%	1.9%	1.7%	1.6%	1.6%
Rail	13%	5%	5%	6%	6%	7%
Maritime	5.3%	4.4%	7.1%	4.2%	2.0%	5%
Others	3.9%	5.2%	3.1%	3.9%	2.8%	4%

**Sources:** 94-98 data from “Vietnam, Managing Public Resources Better, Public Expenditures Review 2000”, 99-02 “Vietnam, Managing Public Expenditures for Poverty Reduction and Growth: Public Expenditures Review and Integrated Fiduciary Assessment 2005”.

Minister but not allocated funding in the annual budget process. These outstanding commitments totaled VND 14.4 trillion between 1999 and 2002. The 2000 PER showed that between 1997 and 1998, MoT’s reported expenditures were 40% and 65% higher respectively than MoF’s allocations through the budgetary process. Over this period MoT has relied on its attached companies to undertake the work that had not been allocated funding on the assumption that they would receive the additional approved funds at a later date. This has placed a significant debt burden on the contractors and the state banks that have provided them credit.

Almec (2005) estimates that between 2001 and 2005, a total of VND 64,145 billion was invested in national and local projects under MoT’s control.<sup>10</sup> The bulk of the financing came from ODA (42%), followed by State bonds (30%). Deducting the ODA share from the State Budget, the state financed about 20% out of its own resources. Loans from state owned commercial banks (SOCBs) funded an additional 3% of projects while BOT financing amounted to 5% of the total investment. Figure 2 shows that financing sources outside the State Budget (inclusive of the ODA) accounted for 42% of the total.

However, there is a lack of clarity with

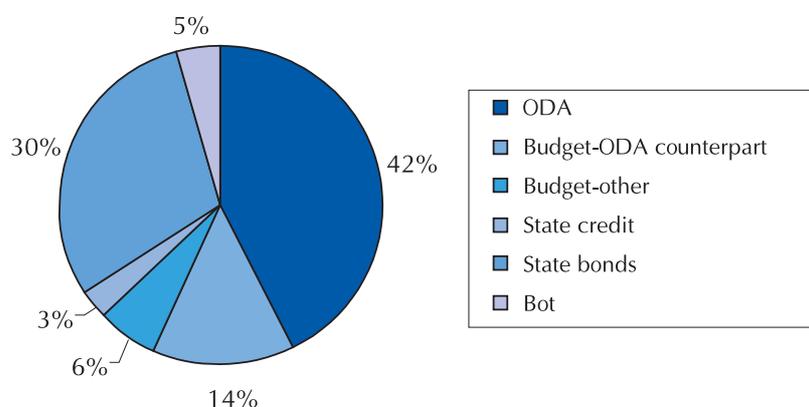
**Table 5.**  
**Table 5: Central Level Expenditure and Funding Sources**  
**(Billion VND- unless otherwise indicated)**

	1999	2000	2001	2002	Total	% of total exp.
Total Expenditure	8,080	8,397	11,593	13,494	41,564	
Total budget from MOF:	5,901	6,391	6,582	8,305	27,179	65.4
State Budget	2,373	2,797	2,293	4,504	11,967	28.8
ODA	3,528	3,594	4,289	3,801	15,212	36.6
Total outstanding commitments	2,179	2,006	5,011	5,189	14,385	34.6

**Source:** Vietnam, Managing Public Expenditures for Poverty Reduction and Growth: Public Expenditures Review and Integrated Fiduciary Assessment 2005”.

10. Source: Ministry of Transport and Department for International Development, “Strategic Review of Transport Donor’s Support to the Government of Vietnam’s Socio-Economic Development Plan (SEDP) for 2006-2010”, June 2005.

**Figure 2: Sources of Financing of Transport Expenditures under Mot's Control\***



\* This includes both national and local projects financed by ODA.  
Source: Almec (2005)

respect to sources of financing and considerable difficulty in reconciling available data. For example, if the majority of transport expenditures financed outside the normal budgetary process was sourced from bonds issued by the central government as indicated in Almec (2005), transport and construction SOEs would not be facing a serious, and increasing, debt problem. In addition, it is not known how BOT investments were financed and to what extent the Development Assistance Fund (DAF) was used in financing transport expenditures.

### Financing Local Government Transport Expenditures

Data is lacking on the sources of finance for local governments. What is clear is that some provinces use their revenues and residents' contributions in addition to state budgetary allocations to finance transport infrastructure. A detailed study of provincial public expenditures in Phu Tho and Vinh Long indicated that state budgetary allocations represented 40% and 33% only of their respective total expenditures on transport. People's

contributions were approximately 7% of the total for Vinh Long and 20% for Phu Tho (see Table 6). While there is likely to be some double counting of expenditures by ministries and targeted programs in the local government estimates, the figures indicate that actual expenditures are significantly higher than those provided by MoF

### Future Expenditure Requirements

Various estimates have been made of future investment requirements in the transport sector through 2010 and 2020. Annual projections vary from a low of VND 24 trillion to a high of VND 99 trillion up to 2010. The lower figure is sourced from the comprehensive VITRANSS study undertaken in year 2000 to provide a basis for a transport master plan through 2010; and the higher figure was more recently estimated. It has been sourced from the Vietnam Transport Strategy to 2020 which was submitted by MoT to the Prime Minister on December 31, 2002.

**Table 6.**  
**Financing Transport Expenditures in Phu Tho and Vinh Long**

MoF (State Budget)	40%	33%
Local Government financing outside State Budget	40%	60%
Private contributions	20%	7%
<b>Total</b>	<b>100%</b>	<b>100%</b>

*Source:* Vietnam, Managing Public Expenditures for Poverty Reduction and Growth: Public Expenditures Review and Integrated Fiduciary Assessment 2005".

Almec (2005) compiles the latest available figures and reaches the value of VND 72 trillion per annum for 2006-2010. Table 7 shows the proposed transport investment as per the 2020 Transport Strategy. The projected annual transport investment between 2002 and 2020 is even higher (than 2002-2010 annual average) at VND 118 trillion (US\$7.5 billion) per year, with almost 60% of the total in rail and urban transport. To place these figures in perspective, the 2002 transport expenditures were VND 24 trillion.

Using actual GDP figures for 2002-2005 (estimated for 2005) and assuming a real growth in Vietnam's GDP of 7% per annum between 2005 and 2010, the estimated requirement for government expenditures on transport as proposed in the 2020 Transport Strategy is

about 12% of the cumulative projected GDP. If the most recent figures in Almec (2005) are used, transport expenditures would be slightly less than 8% of GDP.<sup>11</sup> These expenditure levels are clearly too high and cannot be achieved without significantly neglecting other equally vital sectors of the economy. Most likely these represent "wish lists" which are to be trimmed down later.

A more reasonable and sustainable level of transport expenditures would be 3.5% - 4.0% of GDP, roughly half of what has been recently compiled by Almec. This level is higher than what Vietnam averaged between 1994 and 2002 (3.2%) but lower than the 2001-2 expenditure levels. It would yield a range of VND 164 trillion to VND 210 trillion, an annual average of VND 33 trillion to VND 42 trillion.

**Table 7:**  
**Proposed Investment in Transport Infrastructure (Billion of Current Vietnamese Dong)**

	2002-2010 period	2011-2020 period	Annual average 2002-2010	Annual average 2002-2020
Road:	245,990	328,530	30,749	31,918
In which: Expressway	56,570	158,530	7,071	11,950
National Highway	139,420	125,000	17,428	14,690
Provincial Road	50,000	45,000	6,250	5,278
Railway:	218,661	393,576	27,333	34,013
In which: Express Railway	204,000	361,500	25,500	31,417
Normal Railway	14,661	32,076	1,833	2,596
Maritime	20,387	65,000	2,548	4,744
Inland Waterways	4,673	4,507	584	510
Civil Aviation	17,880	36,330	2,235	3,012
Urban Transport (Hanoi & HCMC)	195,886	423,595	24,486	34,416
In which: Road	129,385	221,448	16,173	19,491
Railway	56,501	193,147	7,063	13,869
Supporting public trans.	10,000	9,000	1,250	1,056
Rural Transport	86,500	77,850	10,813	9,131
Total	789,977	1,329,388	98,747	117,744

**Source:** Submission by MoT to Prime Minister, December 2002.

11. Almec 2005, "Strategic Review of Transport Donors' Support to Vietnam's 2006-2010 SEDP".

### *Composition of Spending within Proposed Envelope*

The Prime Ministerial Decision outlining the Transport Sector Development Strategy to 2020 identifies the maintenance of existing assets as one of several priorities. Given the typically high socioeconomic returns on maintenance, the large and rapidly increasing transport capital stock, and the fact that maintenance expenditures underperformed the 2001-05 plan, maintenance ought to be the top priority for the transport sector in 2006-10 SEDP. Using the same target for maintenance expenditures as set in the 2001-5 SEDP and adding the shortfall in maintenance spending during that period indicates a requirement of about VND 22 trillion. A second priority, from a practical standpoint, is the completion of ongoing projects. Almec (2005) estimates the requirements to complete ongoing national, and ODA-financed, projects in 2006-10 at VND 75 trillion. This would leave a total of

**Table 8.**  
**Proposed Spending Composition for 2006-10**  
**(Trillion of VND)**

	<b>GDP</b>	<b>GDP</b>
Proposed Expenditure Envelope for Transport	164	210
Maintenance (national and local)		22
Ongoing national projects		75
Ongoing local projects and all new projects	67	113

VND 67 trillion to VND 113 trillion for both the completion of any ongoing local projects as well as for new projects (see Table 8).

### *Sustainable Financing for Transport Expenditures*

Two of the challenges facing the sector are the prioritization of expenditures within a smaller budget envelope and the determination of a more balanced sustainable financing structure. These issues are addressed in Sections VI and VII.



## Part V

# Sector Performance

### A. Contribution to Overall Growth and Poverty Reduction

The transport sector has contributed positively to the economic growth of Vietnam over the past decade and has helped reduce poverty directly through better linkages to markets, education and health facilities and indirectly through its contribution to growth. Of the various studies that have documented the contribution of transport and infrastructure in general to growth and poverty alleviation in Vietnam, Grips Development Forum (2003) shows that developing large-scale transport infrastructure in Vietnam helped in opening up new business opportunities and promoting income diversification and off-farm employment. The study also showed that such infrastructure facilitated the spread of economic linkages between growth centers and their surrounding rural areas, proving the vital importance of connecting remote areas to trunk routes with feeder roads to achieve poverty-reducing growth.

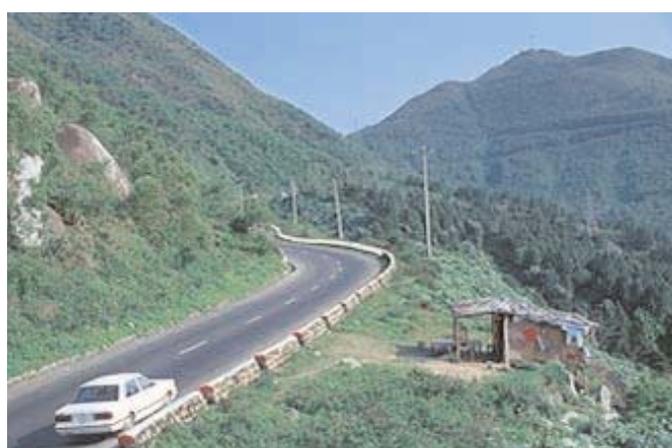
A survey carried out in the course of the study indicated that 90% of the investments in the Ha Noi-Hai Phong corridor would not have taken place had it not been for the improvements in the national highway connecting the two

cities (NH 5) providing a reliable link to Hai Phong port. The large scale improvements succeeded in creating income earning opportunities for the poor as well. In analyzing the linkages between infrastructure investment and poverty reduction, Larsen et al (2004) found that spending 1% of provincial GDP in Vietnam on transport investment will reduce poverty by 0.5%-1% and that a US\$50 million transport investment in the 15 poorest provinces would reduce poverty by 6%-7%.<sup>12</sup>

### B. Quality

#### National Roads

The percentage of paved national roads is a useful indicator of the quality of a country's



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12. Larsen, Pham and Rama (2004), "The Impact of Infrastructure Development on Rural Poverty Reduction in Vietnam".

most important road network.<sup>13</sup> Eighty four percent of Vietnam’s national roads are currently paved up from 61% in 1997. The current percentage of paved national roads is reasonable by regional standards (see Table 9). The condition of the network has also improved with the percentage in good condition increasing from 37% in 1999 to 45% (good and average 66%) in 2002. The improvement in the quality of the network appears to be largely driven by new construction rather than by the maintenance of the existing capital stock because expenditures on periodic and routine maintenance of national roads between 1998 and 2002 were less than half the of the maintenance needs as estimated by VRA in its Ten-Year Strategic Maintenance Plan.<sup>14</sup>

### Local Roads

It is generally difficult to obtain accurate information about the condition of provincial,

district and commune roads and it is highly likely that there are large inter-provincial variations in the condition of local road networks. Nevertheless, provincial fieldwork, and evidence from on-going projects indicate that provincial roads in general are in poor condition. This is corroborated by the fact that, similar to national roads, local government expenditures on local road maintenance do not cover even half of the requirements for an average-condition road network. Rural roads are no exception. About one quarter of the 83,000 km network is believed to be in good or fair condition and 58% of the provincial roads providing connectivity to the main network are in poor condition.

### Rail Infrastructure

Communication equipment is outdated and only 40% of the railway stations are supplied with semi-automatic signals. The quality of the rail and bridges are poor and many lines do not meet modern technical standards. Most of the investment in the sector is in strengthening bridges and keeping the network from deteriorating further. As a result train operating speeds are low at 40 km/h for passenger trains and 22 km/h for freight trains.

## C. Transport Safety

The most serious implication of the rapid growth in the transport sector has been a large increase in the number of accidents by all modes, particularly road transport.

**Table 9.**  
**Percentage of National Roads that are Paved in Select Asian Countries**

Country	Length (kms)	% Paved
Philippines <sup>1</sup> (2004)	28,266	70
Philippines <sup>2</sup> (1981)	23,835	44
Vietnam <sup>3</sup> (2004)	17,295	84
Vietnam <sup>4</sup> (1997)	15,100	61
Thailand <sup>5</sup>	51,544	98
Myanmar <sup>5</sup>	28,790	80

**Sources:**

1. Philippines 2003, DPWH website: [http://www.dpwh.gov.ph/infrastructure/stat\\_JUNE182000.htm](http://www.dpwh.gov.ph/infrastructure/stat_JUNE182000.htm); 2. National Transport Planning Project, 1981; 3. Vietnam Road Authority; 4. VITRANSS; 5. ASEAN Statistical Yearbook 2004

13. The percentage of all (rather than national) paved roads is sometimes used as a measure of quality but this can be misleading and has to be interpreted with caution. For low traffic volumes, well-maintained gravel roads can be the desired standard and quality..

14. World Bank, 2003. "Project Appraisal Document for the Road Network Improvement Project", page 4.

## Road Accidents

Traffic accidents increased dramatically from 1999 to 2002, but have shown a decrease from 2002 to 2003 (see Table 10). Implementation of Decree 13 adopted by the Government to improve traffic safety through education, awareness campaigns, driving tests, vehicle examination, monitoring and enforcement of traffic laws and improvement of black spots has been the main reason for the improvement.

**Table 10.**  
**Road Accidents**

Year	of accidents	% increase	of fatalities	% increase	Number Injured	% increase
1999	21,538	3.8	7,095	11.0	24,179	5.2
2000	23,327	8.3	7,924	11.7	25,693	6.3
2001	25,831	10.7	10,866	37.1	29,449	14.6
2002	27,993	8.4	13,186	21.4	30,999	5.3
2003	20,774	-27.2	11,864	-8.1	20,704	-33.8
2004	17,663	-15	12,230	3.1	15,417	-25.5
2005	14,643	-17.1	11,507	-5.9	12,030	-22.0

Source: NTSC, 2006.

**Table 11.**  
**Road Fatality Rates in Select Countries**

Country	100,000 people	vehicles
Vietnam (2005)	13.6	6.6
Vietnam	14.1	9.4
Philippines*	0.9/5	2.9/16.0
Bangladesh	1.7	44
India	6.3	20
Pakistan	3.2	17
China	8.2	67.2
Indonesia	4.6	4.5
Malaysia	25.9	12.2

Sources: NTSC 2004 and 2006 for Vietnam; all other countries: Estimating Global Road Fatalities, Dept. for International Development (2000), International Road Federation;

\* Official statistic/estimate adjusting for under-reporting

While the death toll of 9.4 per 10,000 vehicles in 2003 compares favorably to other countries in Asia, (see Table 11), data collection of traffic accidents is not yet adequate and the real number of casualties is likely to be much higher.

According to the National Transportation Safety Council (NTSC) of Vietnam, 80% of all accidents in 2003 were caused by poor driver behavior including 33% for speeding, 17% for dangerous overtaking, 16% for driver fatigue and 6.5% for drunken driving. The condition of

roads and vehicles were a minor cause of accidents. About one half of road accidents were on national roads particularly those passing through populated areas and one quarter occurred on urban roads. The "urbanization" of road space in Vietnam is a major contributing factor to high accident rates as many people live within a few meters of the road side.

Urban road safety in particular is a problem. While statistics on accidents resulting in non-serious injuries are considered unreliable due to substantial underreporting, it appears that there are 800/900 road fatalities per annum in HCMC and 400/500 in Hanoi, 70% of which are cyclists or motorcyclists.

## Accidents on other modes

Reported traffic accidents on other modes of transport did not increase significantly between 2000 and 2004. In

2004, there were 1044 accidents including 350 fatalities resulting from the use of railways, inland waterways and coastal shipping. These figures were up by about 10% from 2000, an annual increase of 3%, significantly less than annual growth in non-road passenger and ton kms during this period.

## D. Efficiency

### *National Road Network Efficiency*

Between 1999 and 2002, the 4-lane national road network almost doubled from 2% to 3.9% of the total network, the 2/3-lane network increased from 36% to 66%. The remainder of the network is narrower. Bridges are still a weak link in the system, with 30% of the 4,100 bridges restricted to low loads and 20% narrow. Improvements in the network capacity and connectivity have led to truck speeds increasing from 40km/h to 50km/h on average and bus speeds increasing from 50km/hr to 60km/h and reaching 70-80km/h on some routes.

### *Railway Operating Efficiency*

Despite a network which is small, old and has received negligible investment for upgrading, VRC has performed reasonably well. Vietnam does not have the concentrated flows of bulk raw materials or the long-distances which give rise to heavy rail freight flows. However, its eight lines serve high density passenger corridors. Taking freight and passenger traffic together, traffic density is about 2.3 million

traffic units/route-km per annum, which is relatively low compared to other countries in the region (see Table 12).

The average passenger train load in Vietnam is around 370 passengers which is relatively high, but average freight load of 225 tons is low, as a result of low axle-weight infrastructure, short crossing loops and possible sub-optimal freight operating plans.

VRC is overstaffed. Labor productivity of 124,000 traffic units/employee is low, even by regional standards. This compares with 548,000 units in Thailand and 610,000 units in Indonesia (see Table 12).

**Table 12.**  
**Rail Network Utilization**

Country	(Units per route - Km) millions	Annual Traffic (Units per employee) thousands
Vietnam	2.3	124
Thailand	3.2	158
Indonesia	4.0	610
China	27.7	1061
European Union	3.6	691



### Efficiency of Utilization of Country Boats

While there are tens of thousands of small “country” and ferry boats, their utilization is very low with each vessel only operating around 223 km per month. According to VIWA much of this low utilization can be attributed to poor loading and unloading facilities along the rivers and canals which result in slow turn around of vessels.

### Port Efficiency

Although still lower than in more modern ports of the region, port efficiency has increased and port costs have come down. According to Vinalines, throughput on container berths ranges from 20 to 25 units per hour in Saigon port and 30 units in the new port of Cai Lan in Quang Ninh province and general cargo throughput is 1,500 tons/gang/day. These compare very favorably with performance in other ports of the region. An international comparison reveals that the tariff at Saigon port

is quite competitive with other feeder ports in ASEAN and China (see Figure 3).

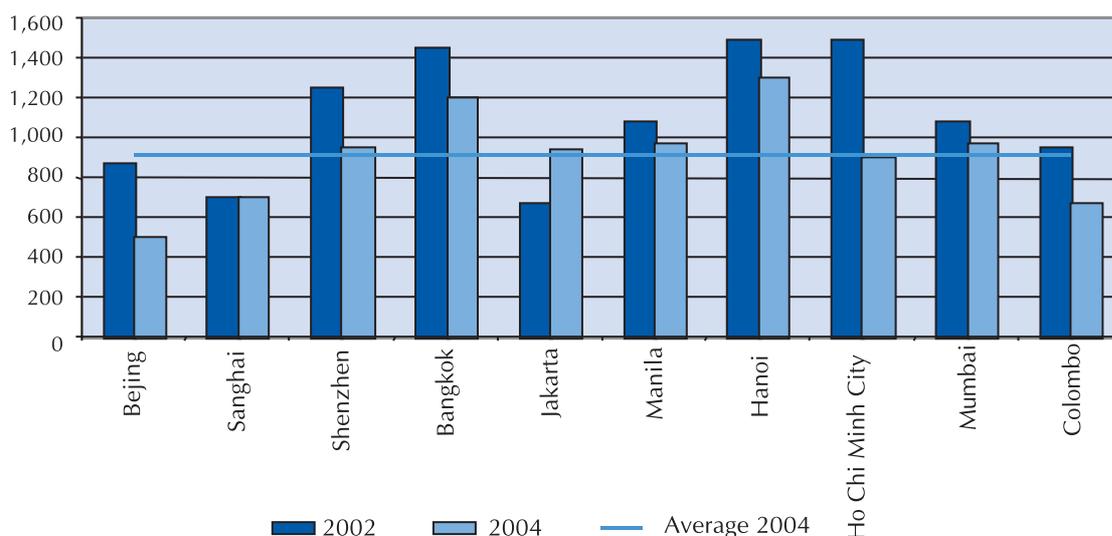
## E. Access

### Rural Access

The number of communes lacking access to district centers was reduced by more than half, from over 600 in 1999 to 269 in 2005. This represents slightly over 2% of Vietnam’s 10,602 communes. Between 1999 and 2003, the national level of rural access has improved from 73% of the population being within 2 km of an all weather road to 76%, which is much higher than for other countries at similar income levels (Figure 4 - left panel). This represents improved access for close to an additional 2.5 million people. Given the evidence of the strong negative relationship between poverty and access (Figure 4 – right panel), this increased access is likely to have contributed to the impressive poverty reduction in Vietnam.

**Figure 3: 40 ft Container Transport Costs from factory, via nearest port, to Japan**

(port charge for a 1,100 TEU includes: navigation, berthage, wharfage and stevedoring)



Source: 12<sup>th</sup> and 14<sup>th</sup> surveys of Investment Related Cost Comparison in Major Cities and Regions in Asia, JETRO, 2002 and 2004.

## Urban mobility

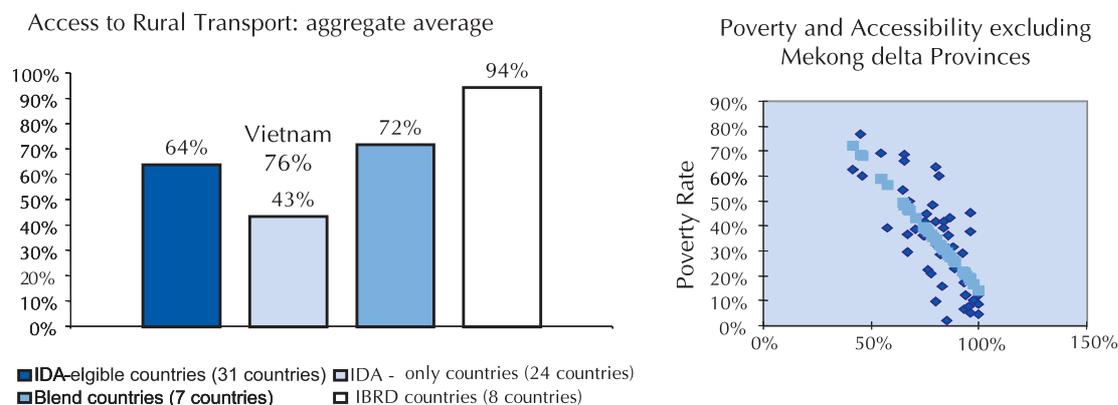
The dominance of motorcycles is perceived as serving the urban population well. For example, the HCMC Transport Study of 1998 showed average speeds for motorcycles of 18-22 km/h in inner areas compared to 13-26 km/h for cars. The level of urban personal mobility, even for the poor, appears to be greater than that in many richer countries. However, this situation is likely to change given the increasing congestion and number of accidents associated with the mix of two and four wheel and motorized and non-motorized vehicles as discussed earlier. In a recently conducted survey of 20,000 households in Ha Noi, over fifty percent considered congestion to be worse than it was five years ago.<sup>15</sup>

## F. Affordability

Trucking costs are comparable to those in Thailand and 40% lower than those in the Philippines. Similarly, intercity bus fares are 25% and 37% lower than those in Thailand and the Philippines respectively. However, there is evidence from recent evaluations of National Highway 1, and surveys of bus operators, that savings in operating costs are not being passed on to customers in the form of lower prices (GRIPS Development Forum, Nov 2003).

In Ho Chi Minh City, public transport remains very unreliable and unattractive. For an average trip length and income the journey to work would cost up to 9% of income which is high by Asian norms (up to 5%).

**Figure 4: Measures of Rural Access**



15. HAIDEP, 2005, "Hanoi Urban Environment Fact Book, Opinions of 20,000 households".

## Part VI

# Main Issues

Vietnam's transport strategies over the past decade have served the country well and have contributed to remarkable economic growth and poverty reduction. During that decade, the growth in transport infrastructure and use outpaced GDP growth. The rapid growth in transport infrastructure and services over the past decade has created new demands and challenges for the transport sector. Fast economic growth has contributed to high rates of urbanization, rising traffic accident rates, new capacity constraints, and a large increase in asset preservation requirements to meet the fast expansion of transport assets. Other impediments reside in the sector's policy, planning, budgeting, regulatory, and implementation frameworks. While these institutional issues have no doubt resulted in some inefficiency in resource allocation and service delivery in the past, they have not held back the progress of the sector whose primary objective was a massive rollout of infrastructure.

Figure 5 summarizes the results of a recent review assessing the effectiveness of transport policies, legislation, regulations and their implementation, highlighting areas where attention is needed. Three issues stand out: the road sector, which typically receives 80%-90% of the national government funding for the transport sector, fares poorly with respect to policy and policy implementation; the urban transport policy environment needs significant

improvements; and implementation regulations in general are weak, a limitation that cuts across many of the sub-sectors.

These weaknesses can be reflected in the form of five main challenges to the sector: (1) how to increase efficiency in both resource utilization and service delivery, (2) how to achieve fiscally-constrained and sustainable financing, (3) how to facilitate growth for future urbanization, (4) how to mitigate the negative impacts of transport and (5) how to develop institutional and human resource capacity to meet the sector's needs. While there are clear linkages between these issues, they can all be attributed to a large degree to the policy and planning frameworks. These provide an overall umbrella that governs regulatory choices, institutional frameworks, planning and programming processes, project implementation mechanisms and service delivery options. For



the purposes of discussion, however, the issues have been structured under the five challenges. Figure 6 shows the organization of the presentation in this section.

## 1. Efficiency in Resource Utilization and Service Delivery

- Gaps in the planning framework; and the fragmented nature of the planning process

There tends to be a gap between broad government strategies and detailed sectoral plans, as well as a fragmentation in the responsibilities for developing plans. In addition, economic development and spatial plans are often not well integrated. Consequently, the planned investments listed in the various plans may not be always consistent, viable or have the required financing.

GoV develops long term national strategies for economic growth and poverty reduction,

**Figure 5.**  
**Transport Sector Assessment**

	Market entry/licensing	Competition/SOE role	Safety/environment	Planning/investment	Pricing/cost recovery	Legislation	Implementing regulations	Implementing mechanisms	Outcome/overall performance
Road Transport Services	✓	✓	✗	n.a.	✓	□	✗	□	✗
Road Infrastructure	n.a.	n.a.	✗	✗	✗	□	✗	□	✗
Ports and Related Infrastructure	□	□	✓	✗	□	□	✓	□	✗
Railway Services & Infrastructure	□	□	□	□	□	□	✓	□	□
Urban Transport	□	✗	✗	✗	□	□	□	□	□
Inland Water Transport Services	✓	✓	□	n.a.	✓	□	✓	□	□
International Shipping	✓	✓	✓	n.a.	✓	□	✓	□	✓
Coastal Shipping	□	□	✓	n.a.	✓	□	✓	□	✓
Inland Waterway Infrastructure	n.a.	n.a.	□	✗	✗	□	✓	□	✗
International Air Transport Services	✓	✓	✓	✓	✓	□	✓	□	✓
Domestic Air Transport Services	□	□	✓	✓	✓	□	✓	□	✓
Air Transport Infrastructure	□	□	✓	✓	□	□	✓	□	✓
Multimodal Transport	✓	✓	n.a.	n.a.	n.a.	□	□	□	□

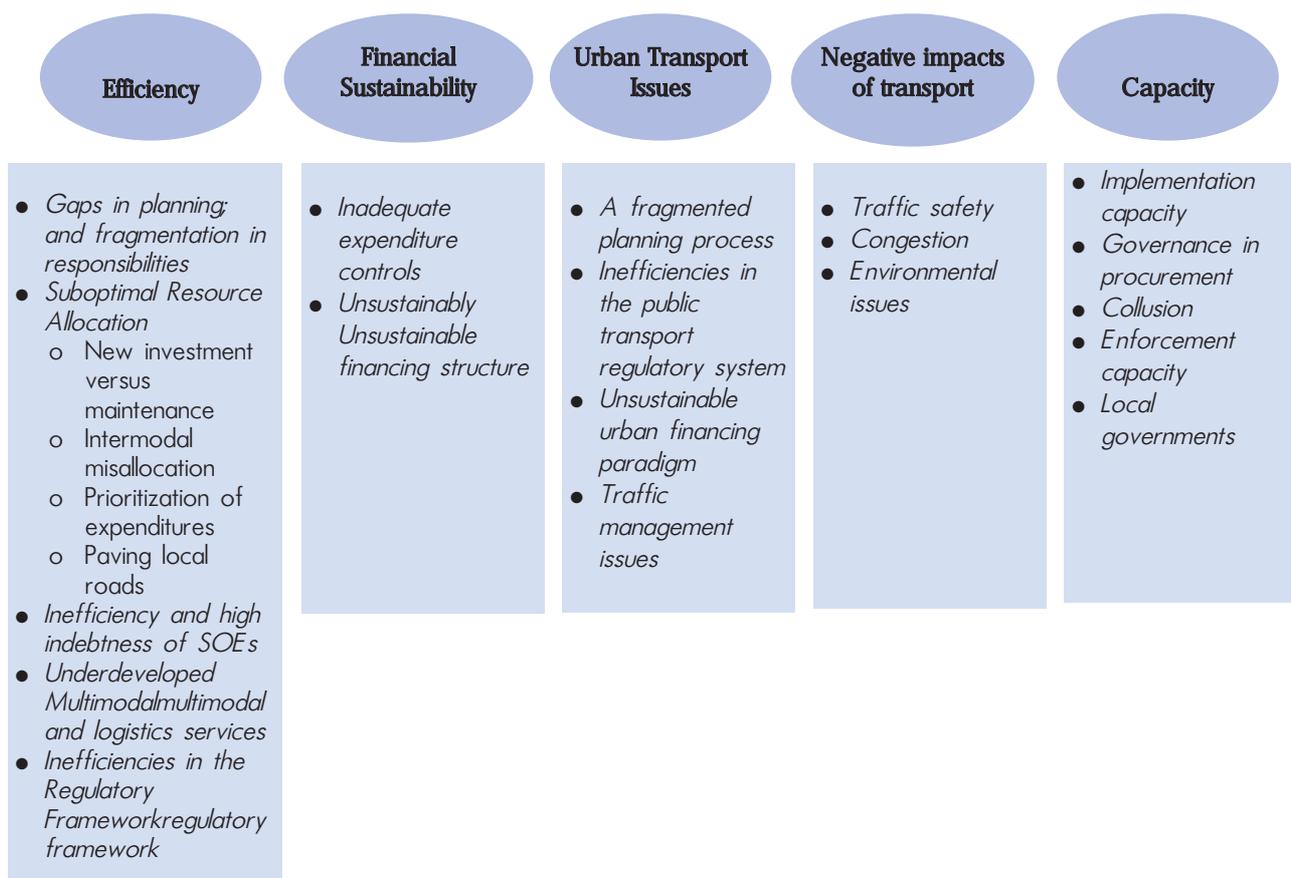
✓	Good	✓	In progress
□	Fair	□	In progress
✗	Poor	n.a.	Not applicable/significant

notably the Comprehensive Poverty Reduction and Growth Strategy (CPRGS) and the 5-year Strategy for Socio-Economic Development. These outline national, regional and sectoral development objectives in terms of modernization, growth and contribution to GDP. Based on these strategies, line ministries prepare their respective strategies and plans to help achieve the country's developmental goals. MoT's plans typically include detailed lists of investments in all its sub sectors. A missing link between the high level strategy document and the detailed lists of investments in the plans is how these investments will contribute towards

the achievement of Vietnam's development objectives and, at a more practical level, how will these investments be realized.

An illustration from the ports sector demonstrates the missing step in the planning framework. To support the government's development strategy to pursue export led growth, MoT prepared a detailed master plan to upgrade and develop over one hundred ports. However, some of the key questions that are not addressed adequately are what role the large number of ports would play, what alternatives have been examined, how improvements and new construction are going to be financed, and

**Figure 6: Structure of Discussion**



whether policy, regulatory, or institutional reforms will be necessary for the sub sector to be able to meet its targets.

The current planning framework also involves the development of a large number of plans some of which overlap in geographical coverage, scope and transport sub sector. MoT's Transport Development and Strategy Institute (TDSI) prepares long and medium term national transport strategies and plans; MoT's sectoral departments develop national modal strategies and plans; and Provincial Departments of Transport (PDoTs) prepare provincial transport plans. Moreover, plans are developed for each of the nine economic regions as well as for each of the three focal economic zones. At present, it appears that these national plans are not well integrated or consistent with one another or with provincial and city transport plans.

Fragmentation in planning also extends to local governments. While subject to dual subordination, decentralization has afforded local governments considerable autonomy in decision making. Provincial and city government transport authorities prepare their plans that are then approved by the People's Committees and Councils and are then submitted to MPI. These transport authorities request and receive recommendations on their plans from MoT but are not obliged to follow them. At present there is no coordinating mechanism to ensure consistency between national and local plans, and the adherence of local plans to broad planning guidelines.

- *Suboptimal Resource Allocation*

Suboptimal resource allocation is prevalent throughout the planning process at both the national and local levels. There is misallocation (i) between new investment and maintenance—resulting in a serious asset preservation problem; (ii) among modes; and (iii) in the selection of investments within each

sub sector. At the local level, a particular concern is the rising tendency to pave roads to avoid the annual expenditures associated with unpaved roads.

New investment versus maintenance: Underinvesting in Asset Preservation—The principle of dual budgeting, in which planning and budgeting decisions are split, creates a “disconnect” between planning for new investment and maintenance. With the exceptions of VRC, Vinalines and VAC that generate revenues and hence have some control over their expenditures, the approvals of the capital and recurrent expenditures are granted by two different government offices and it is not possible for MoT to reallocate funds among the two uses. Dual budgeting practices, typically result in inadequate budgets for maintenance, and reduce the effectiveness of the planning process.

National roads provide a clear case where planning for new investment and planning for maintenance are two independent processes. In principle, VRA is responsible for both planning the development of the national highway system and managing its maintenance but this does not appear to be the case with VRA's responsibility largely limited to maintenance and to only one half of the network. While government transport strategies and plans highlight maintenance as a priority, the amount of resources allocated to road maintenance indicate otherwise with at most 50% of the necessary maintenance expenditures being made. This deferred maintenance coupled with the high rate of investment in new transport infrastructure over the past five years would suggest that expenditures on maintenance will have to grow faster than those on capital investment to ensure that the country's transport infrastructure is not run down. Moreover, the process of setting priorities for road maintenance needs improvement. The basis for allocation at present is technical

engineering criteria; socio economic efficiency is ignored. Although a 10-year strategic plan for national road maintenance has been developed using HDM4 models, and has been approved by the Prime Minister, it is still not being used in the preparation of annual maintenance work programs.



Evidence indicates that expenditures on local road maintenance is about half of what is required, and over 75% of the 83,000 km rural road network is in poor condition. The lack of reliable data makes it difficult to systematically identify variations across provinces, districts and communes to assess the nature and extent of the problems and to better allocate the state's resources.

The importance of jointly planning and budgeting capital and maintenance allocations stems from a) the need to better plan future maintenance requirements commensurate with the increase in the capital stock and b) to ensure to the extent possible that Vietnam is reaping the highest possible socio economic returns from its investment in the transport sector. As an example of the high returns that

maintenance projects typically generate, the first year annual net preservation program under the World Bank-supported Road Network Improvement Project (RNIP) is projected to have a 50% rate of return compared to the 38% and 25% on two highway projects completed under Bank financing in 2002.<sup>16</sup> It is also important to keep in mind that while the returns on investment in new infrastructure tend to decrease over time as more and more transport projects are undertaken and key bottlenecks relieved, the same is not true for maintenance. Maintenance restores the infrastructure to a good condition at a fraction of a cost of reconstructing it.

Intermodal misallocation—The basis for allocation across sub sectors is not clear. Expenditures

on waterways, in particular, have fallen well below the expenditure levels proposed in the PIP. While it cannot be argued that socioeconomic efficiency criteria formed the basis of the allocation in the plan, the proposed expenditure levels for waterways seem plausible given the volumes carried on the waterways and their importance in the Mekong and Red River Deltas where they account for about 70% of ton-Kms moved. Expenditure in the sector allows for routine maintenance of the navigation system, small-scale dredging and some upgrading of river ports. There is very little capital improvement works except for two projects supported by ODA funds.

The impacts of underinvestment in a particular sub sector could also extend beyond the direct impact on the demand and levels of

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<sup>16</sup> While one should not form an opinion on the basis of a sample of two projects, particularly when financed by the World Bank (as the selection would neither be random nor representative), the significantly higher returns on maintenance are generally the case.

service on that mode to inefficiencies in multi modal transport. The utilization of the waterways would further increase if better linkages to coastal shipping could be accommodated through efficient investments in IWW and intermodal facilities.

Prioritization of expenditures—The scarcity of funds dictates that resources be allocated to the use that generates the highest socio-economic returns irrespective of whether the project in question is a new port or the maintenance of a national road. Aside from the issue of suboptimal intermodal allocation and inadequate prioritization between maintenance and new investments discussed above, there are also inefficiencies in the identification of new investments as well as for setting maintenance priorities.

The medium and long term investment plans contain lists of transport projects that are perceived to provide ideal connectivity and access. Typically only a fraction of these projects are implemented due to resource scarcity and some of the projects that get implemented were not in the plan. The basis for the selection of the projects that end up being implemented is not clear. However, there are indications that the efficiency of capital use in Vietnam has been declining over the past decade. The rise in the Incremental Capital Output Ratio (ICOR) for Vietnam over the past decade is much higher than would be suggested by an increase in the capital intensity in the country's production processes and would imply that Vietnam is not realizing the highest socioeconomic returns from its investment, a large proportion of which is infrastructure and

transport.<sup>17</sup> Even though, ICOR has not been estimated for the transport sector, the lack of clear and consistent selection criteria would suggest that there is room for improving project selection efficiency.

Another contributor to the inadequate prioritization is the weaknesses in many of the feasibility studies. One of the common shortcomings in Vietnam (and many other countries) is an excessive focus on a proposed project's technical aspects with little, often inadequate, attention paid to the demand and market side.

Paving local roads—Suboptimal resource allocation is also a concern at the local level particularly with respect to the decision to pave roads. The decision to pave a road or not should be based on economic efficiency criteria that reflect special climactic, geographic and other technical factors.<sup>18</sup> However, there seems to be a bias towards paving roads using ad hoc allocations from the State Budget to avoid the annual costs of maintenance associated with unpaved roads. In principle, this strategy will reduce the maintenance burden in the short run



17. Section I, Chapter 1 on Cross Sectoral Issues.

18. Intech Associates et al in "Rural Road Gravel Assessment Programme", for example, show that gravel roads are not ideal for all situations and that, under certain conditions of rainfall and flooding, they can suffer unsustainable deterioration.

but in the medium and long term provinces will face a deteriorating network and significant costs associated with periodic maintenance. A life cycle cost analysis that would include the resource costs of initial paving and periodic maintenance is more likely to indicate that costs outweigh any resource savings in the maintenance of unpaved roads.

The bias results primarily from the fact that while a longer term view is necessary for realizing the benefits and resource savings associated with the decision not to pave a particular road, the tenure of elected provincial officials tends to be much shorter. It is also easier for such a bias to exist in the absence of a well informed public who can assess the benefits and costs of the various options. Finally, if a provincial government can secure ad hoc State Budgetary allocations from the Central Government once in a while to finance periodic maintenance (or upgrading) of a paved road. Such allocations from the Central government could easily tip the decision in favor of paving many local roads.

- *Inefficiency and high indebtedness of construction SOEs*

Over 100 of MoT's 226 SOE's are involved in construction activities. MoT's debt has been recently estimated at VND 19.5 trillion (*Source: Economics Times Dec. 2005*), about 1.5% of the country's GDP. This figure excludes the debt that has been accumulated at the provincial level. State banks have provided loan rollovers as in many cases the interest payments due are in excess of borrowing enterprise's capitalization. The current debt situation of construction SOEs and their urgent and serious need for financing forces them to submit low "survival" bids to secure contracts, a practice which ultimately results in low quality works and delayed implementation. This practice may relieve insolvency for short periods but is unlikely to prevent bankruptcy. Moreover,

current practices coupled with a lack of performance incentives do not foster a competitive, transparent or efficient operating environment.

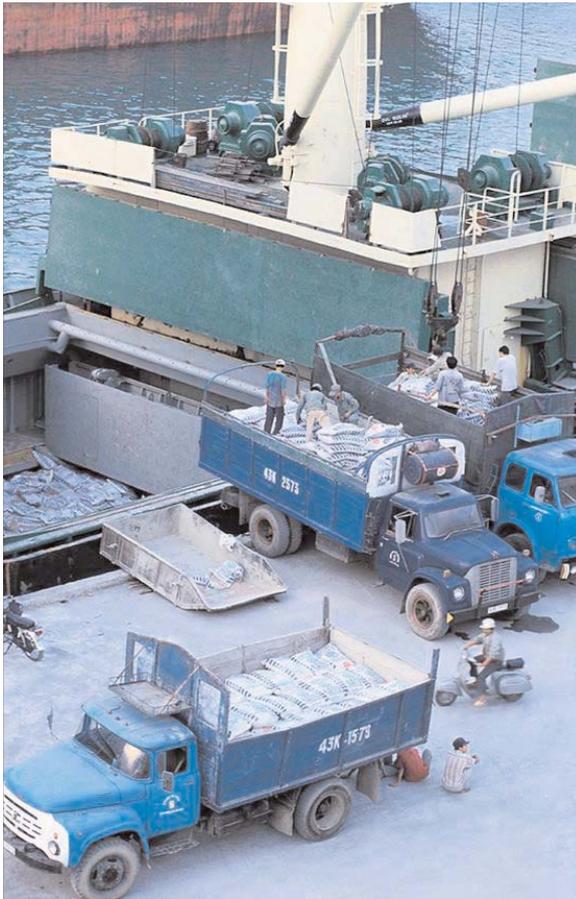
In February 2006, MoT announced 101 of these enterprises were equitized. Neither is the methodology for selection of the enterprises to be equitized nor are the other details of the process known.

- *Underdeveloped multimodal and logistics services*

Vietnam's economic growth requires efficient multimodal and logistics services to support both international trade and internal distribution. These services are currently at their infancy in Vietnam. Logistics costs, assessed to be roughly similar to China, are high at about 15%-20% of GDP, double the cost in industrialized countries. A significant proportion of this cost is associated with holding inventories, a result of under developed logistics systems.

A recently completed Multimodal Transport Regulatory Review (MTRR) in Vietnam indicates that new and revised laws and regulations provide a good facilitating environment but implementation mechanisms need to be strengthened and clarified. A common understanding between the Ministries of Transport, Trade, and Planning and Investment on the definition and coverage of logistics services as referred to in the 2005 Commerce Law is lacking.

The fragmentation in planning also reduces the potential effectiveness of multimodal transport. Despite the 2003 law on international multimodal transport, plans are still prepared with a single-mode focus with little attention to multimodal planning. This is understandable given that plans are prepared by modal administrations under MoT with little coordination among them on strategic multimodal connectivity and efficiency. Not only will the strategic advantages in seamless



transfers between coastal shipping, inland waterways, roads and rail not be exploited but the full returns to an investment in a sub sector may not be realized. For example, the benefits of developing ports to handle 40 foot containers, as planned, will not be fully realized if roads cannot handle the corresponding weights and containers will have to be unstuffed and restuffed at ports.

- *Inefficiencies in the regulatory framework*

The recently completed regulatory review (MTRR) shows that the transport laws passed in the past few years provide a sound basis for the efficient operation of transport sub sectors. Nonetheless, the implementing regulations for these laws require strengthening to ensure that the principles of competition and transparency

govern all business and investment licensing matters, and that private sector participation, both domestic and foreign, is encouraged to enhance operational and managerial efficiency and quality, and investment.

Full efficiencies in the ports and maritime sub sector, in particular, are not being fully exploited as there is still no clear delineation between development, operations and regulation. While Cai Lan port is being operated under a concession, this was awarded to a state owned company on the basis of a negotiated contract without the benefit of competitive selection. Competition in services within a port is still rare.

## 2. Financial Sustainability of the Sector

- *Inadequate expenditure controls*

GoV made investment in transport infrastructure a key priority in its 2001-2005 PIP. Consequently expenditures in the sector exceeded 4% of GDP for the first time in at least a decade reaching 4.2% and 4.5% of GDP in 2001 and 2002 respectively. These expenditure levels are relatively high by both regional and international standards but can be justified and indeed are necessary during periods of heavy rebuilding but it is highly unlikely that they can be sustained in the long run.

Of concern, however, is that 35% of total expenditures were approved by the Prime Minister but not allocated funding. This in itself may not be a problem as the PIP acknowledges that the State Budget will not suffice to implement the identified projects and encourages government entities to pursue other sources including subsidized state debt as long as the borrowing entity will have the capacity to repay the debt.<sup>19</sup> The shortfall has been

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19. MPI, the Public Investment Program.

financed largely by State credit and State bonds sold primarily to SOCB and other large institutional investors. The bonds typically have 5-10 year maturities and are used in part to finance off-budget expenditures. The government's intention is to use these bonds to raise VND 63 trillion (US\$ 4 billion) by 2010 to finance infrastructure projects including the north-south Ho Chi Minh Highway, roads along the borders with China and Cambodia, and irrigation projects in the disaster-prone central provinces.

The formal reason for keeping these bonds off-budget is to comply with the State Budget Law's limit on the budget deficit. However, this practice reduces fiscal transparency. Moreover, given the low direct revenue generation of most of the transport sector, debt repayment or bond redemption is clearly an issue. So far, the issue of debt is being addressed, with little success, through one-off payments from MoF in an attempt to control the large, and escalating, debt of the construction sector.

- *Unsustainable financing structure*

The current financing paradigm is not sustainable. MoT's debt to SOCB was recently reported at VND 8 trillion, about 1.5% of GDP.<sup>20</sup> These figures do not include the debt that has been built up at the provincial level where spending beyond formal budgetary allocations and weak controls were also common. In a recent analysis of expenditure systems in Vinh Long and Phu Tho, it was found that transport expenditures reported by PDoTs were 3 and 2.5 times respectively MoF reported figures.

Even if expenditure levels dropped from 4.5% to a sustainable 3%-3.5% of GDP, it is

highly unlikely that they would be sustained. This is not only because of the unsustainable SOE debt situation but also because 37% of central transport expenditures between 1999 and 2000 were financed by concessional ODA that may no longer be available by the end of the decade and that will be, to some degree, replaced by competitively priced loans.

Vietnam's user charges for the road sub sector include surcharges on diesel and gasoline, license and inspection fees and toll revenues. Table 13 shows the values of these user charges for 2001. While these revenues are more than sufficient to cover road maintenance expenditures, all these revenues are already part of the State Budget. Consequently, the quest to rely more on user charges to create fiscal space would require increasing existing rates and tolling more roads where possible.

**Table 13.**  
**Revenues from Road User Charges (2001)**

	VND Billion
Fuel Surcharge	2,537
License/inspection fees	2,583
Toll Charges	551
Total	5,671

*Source:* MoF

- *Preliminary findings of the Medium Term Expenditure Framework (MTEF)*

Recognizing the problems in the planning and budgeting processes and the large degree of independence between them, GoV started last year a reform process in the transport sector in the form of a pilot MTEF.<sup>21</sup> MTEFs provide a

20. Draft 2006-2008 MTEF submission, 5 September 2005

21. Recommendations to pilot MTEFs in several sectors and provinces was made in 2000 but implementation started in 2003. Four pilot sectors have been identified (education, health, transport and rural development) as well as four pilot provinces (Binh Duong, Ha Noi, Ha Tay and Vinh Long). Implementation for the transport sector starting started a few months ago.

series of scenarios for sectoral or provincial government spending and allocation over a period of 3-5 years. They are prepared within the context of a sustainable medium term fiscal envelope for each sector/province. In principle, the scenarios for capital and recurrent expenditures would be prepared in an integrated way removing the current “disconnect” between planning for new investment and maintenance, and possibly removing rigidities in moving budgetary allocations between the two spending categories. Of great significance, this approach if successful would shift resources to maintenance which has not received the priority it is warranted.

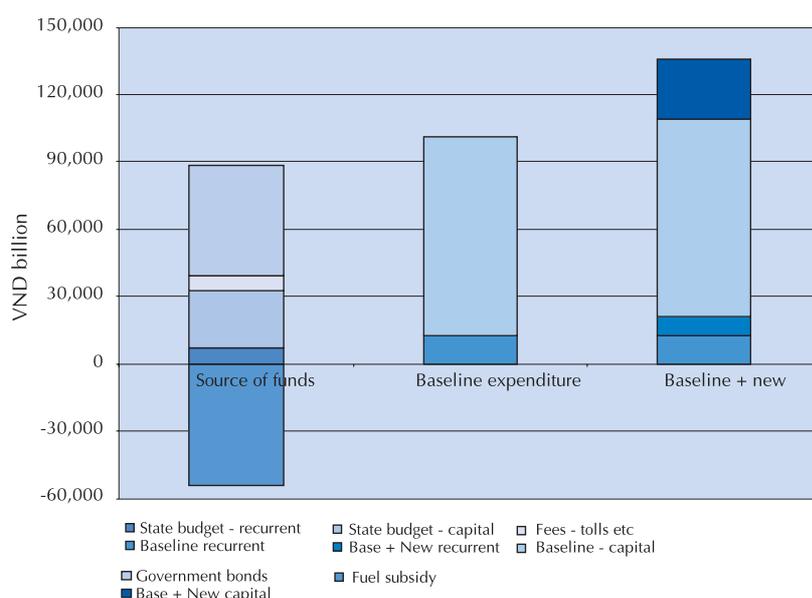
The early results of the MTEF highlight the importance of the linkages between policy, planning and budgets. Figure 7 sets out the medium term financial plan for the Ministry of Transport (excluding the provinces) between 2005 and 2008. It shows the likely sources of funds, the baseline expenditure for the sector (for ongoing projects) and the planned level of investment as set out by MoT.

It is of particular concern that the baseline expenditure for the period, which reflects commitments for ongoing construction projects and the existing level of maintenance, exceeds the available sources of finance by 14%. When the new initiatives (including ODA funded projects) are included the financing gap jumps to over 50%.

Projected sources of financing will still rely heavily on the state budget and state bonds and it is not clear whether there is a transition during the 3 year period to reduce the reliance on the state. Bonds are expected to finance 55% of the total, and road user charges and fees are expected to represent about 7% of total. If the ceiling remains as defined in the MTEF, 90% of the state capital’s budget will be for ODA funded projects. It is worth noting that the fuel subsidy, if maintained at its current level, will be equivalent to 2% of GDP.

Preliminary results of the MTEF indicate that the level of recurrent finance continues to be eroded as a proportion of total expenditure, representing about 8% of the total.

**Figure 7. Projected Levels and Sources of Finance and Expenditures for MoT—2005-2008**



### 3. Urban Transport Issues

From an urban transport perspective, the predominant challenge for Vietnam’s major cities in the coming decades will be facilitating spatial growth for future urbanization. As clear from the sector assessment summarized in Figure 5, the main impediments to a more efficient performance of the sector lie in the governing policy and planning frameworks. Traffic accidents, congestion and pollution, major concerns in urban areas

are addressed under the negative impacts of transport (sub section # 4).

- *A fragmented planning process*

Cities face many of the problems in planning that were discussed above. Responsibilities are excessively fragmented: both Hanoi and HCMC have different agencies planning and implementing rail and bus systems with minimal coordination. Existing transport master plans for the major cities include very expensive investment 'wish-lists' formulated without budget constraints. A strong focus that ensures that growth is coordinated along high density corridors and that the benefits of investments in public transport and road infrastructure are complementary is lacking. Presently, unstructured peri-urban growth runs the risk of causing severe congestion (which would inhibit growth after a point). Rigidities in the planning process and the lack of metropolitan/regional institutions that can coordinate between local governments to minimize the incentives for jurisdictional boundaries to distort development hamper a coordinated planning approach. The absence of a well functioning land market, despite some progress in recent land reforms, distorts land prices and complicates the planning process.

- *Inefficiencies in the public transport regulatory system*

The capacity/authority of public regulatory agencies in Ha Noi and Ho Chi Minh City needs to be strengthened. Routes are allocated to operators in an ad-hoc manner even though operators receive significant subsidies. Subsidies are based on regular, detailed cost audits. Such a system has significant and well known limitations: (i) there is asymmetry of information in that the operator always knows much more than the regulator and has no incentive to reveal true costs; (ii) operators have

no incentives to increase efficiency and reduce their costs; and (iii) monitoring costs are very high for government.

- *Unsustainable urban financing paradigm*

According to 2020 Transport Strategy (see Table 7), 30% of the planned investment in transport are for Ha Noi and Ho Chi Minh City. While these targets are high and unlikely to be met, current sources for financing urban infrastructure need to be augmented. Local governments have expressed an interest in privately owned and operated BoT type systems and presently, negotiations are underway with private/bilateral financiers in both Hanoi and HCMC to finance (and in some cases operate) urban rail links. A particular challenge in developing effective strategies to govern the role of the private sector is the efficient allocation of risk in a manner that facilitates investments while limiting the city's exposure and protecting public interests.

At present, municipal governments in both HCMC and Hanoi subsidize bus service, both bus purchase and operations. In 2003, revenues generated by public bus services in Hanoi covered less than 50% of their operating costs. These figures are expected to increase as ridership increases. Analysis of bus operating data suggest that while there exist some potential to reduce operating costs (primarily by increasing bus utilization rates and with small increases in labor productivity rates), it will be difficult for the bus systems to recover operating and investment costs without increasing fares.

- *Traffic management issues*

Poor traffic organization remains a critical issue contributing to accidents, congestion and consequently air pollution, despite concerted efforts in both Hanoi and HCMC focusing on safety and traffic management. There is a

perception that international good practice is not completely transferable. The situation is exacerbated by the lack of a culture of traffic management. Such a culture is currently inhibited by excessive fragmentation of responsibilities between different elements of the Public Works Department (responsible for planning, designing, implementation and some elements of enforcement) and the traffic police (responsible for operations and most enforcement).

A major weakness in traffic management concerns the urban poor and disadvantaged. There are inadequate facilities for pedestrians, cyclists, and the disabled. Pedestrian movements in major cities are inhibited by an inadequately maintained sidewalk system, with widespread commerce and parking obstructing pedestrian movement as well as very poor management of pedestrian movements at intersections. These concerns are exacerbated in the case of people with disabilities; whose livelihoods are seriously imperiled by non-inclusively designed and inadequately managed pedestrian facilities. Though close to 25% of vehicular trips in Hanoi and HCMC and more in other cities are made on cycles, little



attention is paid to cyclists needs and bicycle security is a serious problem. Even though Hanoi has developed a network of cycle-only lanes, there is no enforcement and those lanes are extensively used by cars for parking.

#### 4. Mitigating the Negative Impacts of Transport

Poor traffic organization remains a critical issue contributing to accidents, congestion and consequently air pollution.

- *Transport Safety*<sup>22</sup>

Positive road safety management steps are being made in Vietnam. Some performance targets have been set. Coordination arrangements have been put in place, with the establishment of the NTSC. A National Program on Traffic Safety (NPTS) was developed and a comprehensive program of work has been specified. Nevertheless, accidents and fatalities remain a problem, particularly the high levels of motorcycle-related accidents problem in Hanoi and HCMC.

Moreover, and despite the positive steps taken, a picture still emerges of ineffective performance management, weak implementation arrangements and fragmented intervention. Ministries, development partners, businesses, and non-governmental organizations are engaged in road safety issues and much work has been done but this has not yet translated into a cohesive strategy or a set of well-coordinated actions.

There are gaps in the proposed NPTS and an absence of clear priorities for action based on a strategic analysis of the problem.

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22. The source for this section is Annex 5 of the June 12-30, 2003 Aide Memoire, "World Bank Transport Safety Strategy Review".



Proposed activities and interventions lack adequate finance, proper coordination and planning. In some cases they do not adequately reflect good practice. There is also a serious lack of capacity, resources and skills within the agencies responsible for program delivery and responsibilities and accountabilities within and across agencies and levels of government remain unclear.

A statute in the law that provides a waiver from an obligation to wear helmets inside city limits is inconsistent with the government policy in this regard, particularly when intra cerebral hemorrhage (common to motorcycle accident victims) was considered a major cause of hospital death in Vietnam.<sup>23</sup>

- *Congestion*

Efforts to control the rapidly increasing congestion in Hanoi and HCMC have focused on limiting motorcycle ownership in the urban districts by fiat. Such controls are neither equitable nor effective as the rules have been

easily circumvented by registering vehicles outside the restricted districts.

- *Environmental concerns*

Though Vietnam has successfully phased out lead from gasoline, both Hanoi and HCMC have air quality problems. Analysis of available data from Hanoi suggests that transport is a significant contributor to particulates (PM10 and PM2.5), Ozone formation and locally to Carbon Monoxide (CO) and old motorcycles and diesel trucks are the biggest polluters in aggregate. Though some policies are in place to inspect and control emissions from four-wheeled vehicles, motorcycle emissions are uncontrolled.

## 5. Institutional and Human Resource Capacity

Modernizing the transport sector to be able to respond to new demands and challenges requires significant capacity development at both the institutional and human resource levels.

- *Implementation capacity*

Project management and implementation. In principle, the mandate of a PMU is to safeguard project performance objectives. PMUs serve as focal points of accountability and responsibility reporting to governments and to development partners providing financial support to the project. It is also hoped that in building the capacity of PMUs, there would be spillovers that would enhance implementation capacity in MoT and its agencies. PMUs have not been consistently successful in discharging of their responsibilities in project management and there has been little, if any, capacity

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23. Viet Nam – Growing healthy: a review of Viet Nam 's health sector, World Bank. 2001

development at the central level, a finding in no way unique to Vietnam.

Moreover, the criteria for selection of central- and provincial-level PMUs to manage the implementation of new projects are unclear. Performance of PMUs is not assessed against well defined variables and there is no incentive system that would encourage efficiency and timely implementation. Ability and competence levels vary largely among the different PMUs, a fact that can clearly affect both implementation and project quality. There is no systematic way for sharing good (and bad) experiences among PMUs. As a result, knowledge accumulation is slow and it is not uncommon for different PMUs to get caught up in the same implementation delay.

For state corporations in transport (VRC, Vinalines, Vinashin and VAC), the larger issue is commercialization. In the absence of a commercial orientation or an incentive framework, the corporations PMUs will have no incentive to increase efficiency and raise quality.

Absence of clear accountability and oversight roles. The quality of construction varies but is often low. While several factors contribute to this outcome, one of the main reasons is the limited effectiveness of supervision consultants. PMUs do not typically empower supervision consultants, who are often bypassed with contractors reporting directly to PMUs and sometimes even to upper levels of management at MoT. Accountability and oversight roles are not clearly defined. The weak capacity of supervision consultants further contributes to the low quality. Moreover, the current debt situation of construction SOEs and their urgent and serious need for financing results in low bids to secure contracts, a practice which ultimately results in low quality and delayed implementation as discussed above.

SOEs under State Corporations and the

Ciencos implement a significant share of MoT's transport projects. As the Ciencos are attached to MoT, PMUs and supervision consultants can often exert no influence over contractors. In addition, even if supervision consultants were empowered, their level of effort is restricted by established "cost norms" that would not enable them to carry out their responsibilities adequately, further contributing to the poor quality of completed infrastructure.

Lengthy approval process: Project approval processes are lengthy, tedious and not always clearly defined. The objective of some of the required steps is unclear and the duration of an approval process tends not to be known with certainty. This adds an element of inefficiency through uncertainty and increased cost, and could also limit the pool of bidders interested in implementing transportation projects in Vietnam. As an example of the complexity of the process, the engineering designs of road projects often have to be approved by the implementing PMU, VRA, MoT, PDoT, MARD, VNRA, and the Road and Railway Traffic police department. While each of these agencies may be safeguarding some particular interest, it is not clear, that all have the capacity to approve designs nor is it obvious that they should be approving such designs. Delays in approval often lead to the expiration of the validity of the designs which results in renegotiation of the scope of works, modification in designs and costly variation orders.

- *Governance capacity*

Procurement within the sector suffers from collusion at many levels of the process. This contributes to both the inefficiency of implementation as well as to the low quality of construction. Evidence from procurement associated with World Bank transport projects suggests that the fully competitive award of contracts has not been achieved yet. For example, evidence from ex-post procurement

reviews highlights a trend towards collusion of bidders and the artificial restriction of competition. State control of prices also limits truly competitive bidding. In some of the more extreme examples the range of bid prices are so close to each other that it is very unlikely that a competitive process has taken place

GoV is aware of the problem and is undertaking several measures to limit collusion. These include measures to increase transparency such as the publishing of all requests for proposals in MPI's gazette and on its website. A draft procurement law that provides a complaint mechanism is being discussed. Finally, Decree 80 requires community participation in, and supervision of, local decision making processes.

- *Resettlement issues*

Resettlement is considered one of the largest contributors to implementation delays in transportation projects, particularly donor supported projects.<sup>24</sup> In addition to the lack of sufficient resources, the often inadequate capacity of staff implementing resettlement policies, the lack of awareness of project affected people of resettlement policies and the general lack of transparency often lead to inequity in resettlement, complicate the process and delay implementation. The difference in resettlement regulations between GoV and donors often results in further delays in resettlement.

Through various decrees and laws, GoV has considerably improved its resettlement policies. Some of the key issues that remain are with respect to consultations with communities to be resettled, independent monitoring of the implementation of resettlement plans and compensation for illegal occupants.

- *Enforcement capacity*

Weak compliance with regulations very often renders them ineffective and hinders the development and efficient operation of the sector. The trucking industry, for example, which has been deregulated with no entry to barriers (except for joint venture requirement for foreign firms) and freely negotiated tariffs remains in a low-quality-of-service equilibrium, in large part due to the lack of effective enforcement of technical (quality and safety) regulations and insufficient demand for high quality services. A large proportion of the trucking fleet is old, and non-compliant with technical regulations on vehicle quality and condition. Commensurate with the quality of trucks, tariff rates are low. These rates in turn inhibit investment in the industry and discourage modernization and the provision of higher quality services. While the demand for such services is developing as Vietnam continues to expand into more sophisticated manufactures where timely and reliable delivery are important, enforcing regulations will help speed up the development of the sector to modern standards.

Enforcement of regulations is also an issue that can affect the seafood industry, an important and growing sector in Vietnam. Refrigerated trucks have often been reported to be of low quality and have discouraged some international shippers from exporting seafood. While, this has not impacted the rapid growth in seafood exports, it clearly could if the issue is not promptly addressed.

The problem of vehicle overloading is not unique to Vietnam and is quite common in many developing countries. Two reasons for overloading are ineffective and weak

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24. Vice Prime Minister Vu Khoan stated at the opening ceremony of the Donors Advisory Conference held in Hanoi on June 19-20, 2003 that resettlement is the most difficult issue for projects and not the lack of funds, and that disbursement of ODA funds was slow due to resettlement.



enforcement and lack of sufficient (functioning) weigh bridges. Attempts over the years to deal with overloading by strengthening enforcement and by adding new weigh bridges have not borne much fruit. Given the prevalence of overloading and the poor track record in controlling it, it may be practical to start considering second best solutions that acknowledge the existence of overloading. Comparing the costs imposed on MoT and road users as a result of truck overloading to the cost of designing and building the roads to higher standards that can withstand higher axle loads (while observing road safety codes) would help determine whether it may be advisable to design the roads for higher axle loads or not.

- *Weak information systems at the local level*

The lack of basic reliable information systems at the local government level coupled with the fact that provincial governments are not required to report their transport expenditures to MoT make it difficult to assess actual expenditures and conditions of local transport infrastructure. The issue is all the more important to the national government because local governments receive about half of the state budgetary allocation to transport. Information systems are necessary to help provincial governments plan their network needs and enables the central government to better target its resources. At present, it is common to rely to a significant degree on community contributions and community labor in undertaking the maintenance of commune and village road networks. The sustainability of this strategy is likely in the more prosperous areas but quite unlikely in the remote areas which tend to be poorer and more sparsely populated. Having better information could, among other things, help shift (more) resources from the central government towards the poorer provinces reducing the maintenance burden on these communities.

## Part VII

# An Agenda for the Next Decade

The main challenges facing the transport sector as identified in the previous section are (1) to increase efficiency in both resource utilization and service delivery, (2) to achieve fiscally-constrained and sustainable financing, (3) to facilitate growth for future urbanization, (4) to mitigate the negative impacts of transport and (5) to develop institutional and human resource capacity to meet the sector's needs. Recommendations in this section follow the same structure and are summarized at the end of this section in Table 13. They are divided in the table on the basis of the implementation horizon into short term recommendations (to be completed within 3 years) and medium to long term recommendations (to be completed in 4 - 10 years).

### 1. Enhance Efficiency in Resource Utilization and Service Delivery

*Develop a results framework mapping measurable outcomes to sector goals*

When developing the overall strategic direction for the transport sector, it is important to align sector and national goals at both national and provincial levels towards desired outcomes. Under such a framework, MoT and other responsible agencies would define measurable outcomes reflecting sector goals and ultimately resulting in specific projects and reforms to achieve these goals. Finally, to determine the success in achieving these goals, it is necessary to define measurable

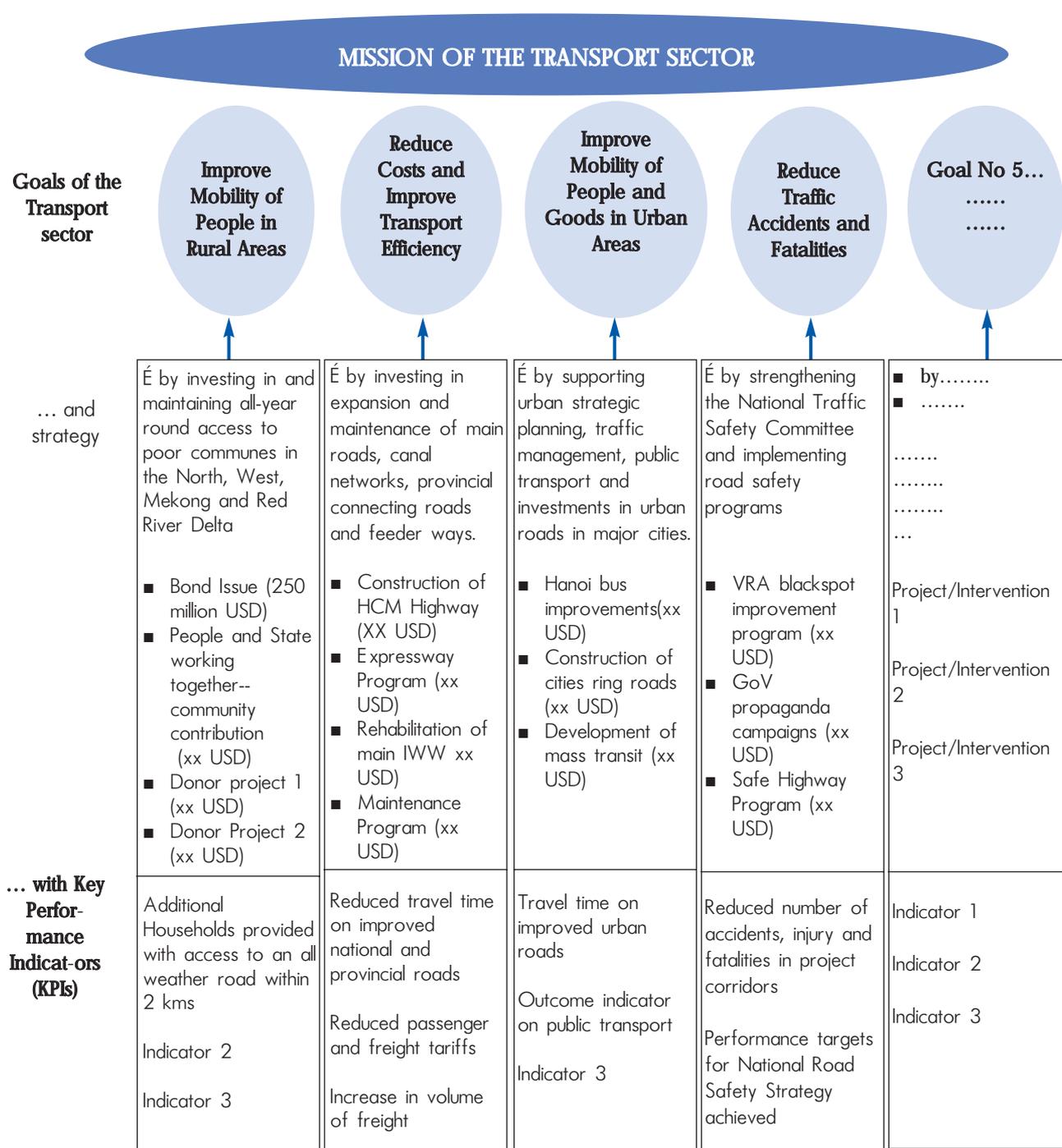
performance indicators. Figure 8 provides a stylized and partial framework for the strategic direction of the transport sector. It is intended to demonstrate the links between the indicators and the goals of the sector. By developing such a framework, GoV can clearly establish which interventions to use in targeting each of the sector's goals as well as the cost and sources of finance associated with each goal.

Goal number 2, for example, in Figure 7 is to reduce costs and increase efficiency by investing in the expansion and maintenance of roads and waterways. The interventions to achieve this goal in this stylized example are the construction of the Ho Chi Minh Highway, an expressway program, a maintenance program and the rehabilitation of the main inland waterways. Even if all these interventions were successfully undertaken, one can not be certain that the specific goal was accomplished. To ascertain that efficiency has improved and cost of freight has dropped, it would be necessary to measure travel time and freight tariffs, the key performance indicators for this goal.

*Rationalize the transport planning process*

To ensure consistency between economic and spatial development plans and among the different transport plans, it is proposed that each of the modal administrations attached to MoT develop prioritized plans in collaboration with TDSI and the Transport Department (TD) of MoT. Prioritization in developing transport plans needs to start early in the process within

**Figure 7. Stylized Strategic Direction of Transport Sector and Key Performance Indicators**



Source: Adapted from Vietnam Country Portfolio Review prepared by R. Nanjia and V. Gyllerup

the administrations and with strong TDSI and TD involvement. These plans will form the basis for long term national transport plans. To harmonize the different plans Regional transport plans whether for one of the nine geographical regions or one of the three focal economic zones would be a subset of the national plan.

The credibility of the formulated plans is also essential to attract private sector investors. With uncertainty regarding future plans, many investors lack the confidence to finance toll roads or ports for example, two potential areas for private sector participation. Prioritized and resource-constrained plans can reduce uncertainty but remain flexible as plans evolve over time.

At the local level, decentralization has vested provincial and city governments with considerable autonomy in decision making, indeed a desirable achievement but some harmonization in planning is still necessary. Providing MoT a formal role in the review of local development plans ensures their integration and consistency with national programs and adherence to the planning guidelines. The proposed oversight role for MoT is also important in ensuring that decisions at the local level are based on socio economic efficiency criteria and are less politicized particularly in light of the inevitable mismatch between the tenure of local elected officials and the significantly longer life of transport infrastructure.

*Leverage the ongoing development of the MTEF as a reform tool to address the weaknesses in planning and to improve resource allocation*

MTEFs address the fragmentation in decision making through the establishment of a Working Group with representatives of MoT, MoF and MPI. The Working Group in turn reports to an Inter-Ministerial Task Force consisting of members of the same three

ministries. The empowerment of the Task Force and its support by senior government members is essential for the successful implementation of MTEFs and for their potential replication throughout the country.

Given that the MTEF for the transport sector is still at a relatively early stage, this is a good opportunity to ensure that as many as possible of the elements necessary to overcome the existing weaknesses of the current planning system are in place and to link the implementation of MTEF to other planning reforms.

MTEF can provide the missing link in the planning process. At the outset, it is important to define where MTEFs fall in the planning framework and what linkages they will have to the SEDPs and PIPs. The various alternatives need to be considered with perhaps different sectors experimenting with different roles for the MTEF. This planning tool can be used to remedy the weakness in the current planning system stemming from a direct progression from broadly stated developmental goals and strategies to long lists of detailed investments with little attention to budgetary constraints and financing, the contribution of these investments to the development goals, and to possible alternatives.

Apply MTEF at the sectoral, not the modal, level. To ensure that as many as possible of the benefits of the MTEF are realized, it is important that it is developed at the sectoral level and that it covers all transport sub sectors. However, if deemed necessary due to limited capacity, an initial focus of the MTEF in transport can be the road sector. Given the large share of resources dedicated to roads, significant benefits could be derived from an efficient allocation to this sub sector. Nevertheless, capacity would have to be built rapidly to move to a sector wide application to avoid the inefficiency of independent modal planning.

Establish and apply sound criteria for

spending in the MTEF. A prerequisite for a successful MTEF is the establishment of sound criteria for rationalizing expenditures. At present, little use is made of rigorous socioeconomic efficiency criteria in appraising expenditures. Little benefit will come out of the MTEF if such criteria are not established and strictly adhered to. The natural leader for establishing these criteria and overseeing their application is MPI. The process requires participation by the ministries piloting the MTEF perhaps as a first stage, and a later expansion to other line ministries. Developing and implementing these institutional changes requires strong political support complemented by ample and continuous capacity building over several years.

The ongoing pilot MTEFs in four provinces can play an important role in improving the planning, budgeting and resource allocation processes. These exercises need to be observed carefully to see how they can be improved and replicated in the rest of the country. If implemented satisfactorily, the MTEF would help provincial governments determine the allocation between maintenance and upgrading on a sound basis as well as reduce the burden of financing that is currently faced by some small local communities.

An issue of significant financial and economic consequence is the paving of provincial and rural roads to avoid the annual financial burden of maintaining unpaved roads. The decision whether to pave the roads or not should be based on a life cycle cost analysis of the different alternatives taking into account the different topographic and climatic conditions of each location. The decision should not be influenced by the ability to secure one time State budgetary allocations from the national government. This practice, which distorts decision making, needs to be reconsidered and abandoned.

Require a balanced analysis of proposed

transport investments. A common practice by engineering firms when preparing feasibility studies for projects, some of which are unsolicited, is to provide too much detail on the technical aspects of the project with little, often poor, analysis of the demand and the economic impacts. A balanced approach that also ensures high quality analysis of the projects' economic and social benefits is necessary to minimize suboptimal allocation of resources. Moreover, subjecting unsolicited proposals to the same rigorous standards of appraisal would enhance efficiency in resource allocation.

#### *Invest in asset preservation*

While the MTEF can provide some flexibility in shifting resources from new investment to maintenance, this will not eliminate the need for developing an asset preservation framework and for implementing the strategic plan for national road maintenance. The 10-year strategic plan for national road maintenance that has been developed using HDM4 models and has been approved by the Prime Minister should be relied on in the preparation of annual maintenance work programs.

#### *Enhance the capacity for multimodal transport and logistics planning and implementation*

Following the recommendations of the MTRR, implementation regulations need to be strengthened and clarified. A common understanding between the Ministries of Transport, Trade, and Planning and Investment on the definition and coverage of logistics services as referred to in the 2005 Commerce Law needs to be developed before the implementing regulations for the Commerce Law are finalized.

The role of MoT's Transport Department in integrated multimodal transport planning needs to be clearly defined, and the department's capacity strengthened. To help increase the efficiency of the logistics industry,

MoT may wish to encourage logistics providers to establish a National Logistics Forum (NLF) financed by its members to identify the industry's needs and to consult with the government on the appropriate course of action. One of the first tasks of the NLF could be the definition and estimation of a Logistics Index to be updated annually to better monitor logistics costs. As a counterpart to the Forum, an Inter-Ministerial Logistics Committee would help liaise with the Forum as well as coordinate government policies affecting logistics and multimodal transport. The mandate of the GMS Transport Facilitation Committee could be broadened to enable it to play the role of the proposed Inter-Ministerial Committee.

#### *Articulate then implement SOE reforms and equitization plans*

MoT has some elements of a phased equitization plan for its SOEs in place. The objective of equitization, the methodology for enterprise selection and the details need to be clear and transparent. It is essential to account for the debt situation of the SOEs accurately and for the government to explain the basis for bailing out some SOEs, as is likely to happen, and for letting others go bankrupt. If the plan is to start with smaller SOEs, the reasons and implications need to be articulated. A firm timetable for this process together with strict monitoring of its implementation by an interagency taskforce from MoT and MoF (and possibly others) increases the possibility of success of the SOE equitization and reform program and the chances of achieving the desired implementation efficiencies.

#### *Modernize and strengthen the regulatory framework*

The recently completed regulatory review (MTRR) shows that the transport laws passed in the past few years provide a sound basis for the efficient operation of the transport sub sectors. Nonetheless, the implementing regulations for

these laws require strengthening to ensure that the principles of competition and transparency govern all business and investment licensing matters, and that private sector participation, both domestic and foreign, is encouraged to enhance operational and managerial efficiency and quality, and increase investment.

Full efficiencies in the ports and maritime sub sector, in particular, are not being fully exploited. There needs to be clear separation between the regulatory and operating functions and more competition between stevedoring providers in, and between, ports. Perhaps more importantly concessions for managing and developing ports need to be based on competitive and transparent selection. The replication of sole sourcing in the award of concession contracts as in the case of Cai Lan port will not ensure efficiency in investment and operations. While it is possible to argue on the basis of certain indicators that indeed some of Vietnam's key ports are competitive and compare favorably to well run ports in the region, this is despite of existing regulations and not a result of an efficient regulatory framework for port development.

While GoV's motivation for the modernization of its transport regulatory framework is to enhance the efficiency of the sector and the overall economy, the government can use its imminent joining of the WTO to commit to undertake the changes faster to realize the desired efficiencies.

## **2. Financial Sustainability of the sector**

#### *Tighten expenditure controls*

Stronger links between planning and budgeting need to be instituted to avoid the worsening of the existing debt situation of national and provincial state owned construction enterprises. Making the

availability of financing a requirement for approving projects at both national and local levels will serve as a control on spending. The current lax requirements for lending by some SOCBs need to be replaced by rigorous commercial criteria with the debt capacity of the enterprise and the project carefully examined. This will limit the availability of financing to projects and enterprises that can repay the debt. The ongoing MTEF in transport and in four provinces (as pilots) serves as an important instrument in this regard but needs to be complemented by government regulations placing tighter controls on the ability of SOEs to borrow from SOCBs and on SOCBs to lend.

#### *Develop a sustainable financing structure*

The main objective is not to increase current spending levels as a share of GDP which are at fairly high levels but to develop a sustainable financing paradigm for the sector with less reliance on the State Budget. In identifying such a paradigm, it is important to distinguish between two different levels in the financing framework. The first level involves the ultimate payers for the infrastructure and associated services and the second one deals with the financiers of the infrastructure.

#### *Paying for infrastructure and services*

The ultimate payers are typically the direct beneficiaries and the general public paying through government taxes and other revenues. A toll road provides an example where users may pay the full cost, or only a share with the government (general public) paying the shortfall. To this extent, increasing the share that is paid by the beneficiaries of a road, (or port or bus service) would reduce the share paid by the government. Mechanisms for mobilizing resources from beneficiaries in

return for improvements to transport services and infrastructure include increasing user charges (by raising existing levels or reducing the fuel subsidy and using the savings). Another avenue would be to capture a proportion of the increase in land values associated with large transport improvements. These are discussed below.

- Consider increasing user charges by raising their existing levels and/or by reducing the fuel subsidy and using savings towards maintenance

Increasing user charges is appealing and there has been some evidence that road users, for example, are more willing to pay for the use of the road if their payments are directly linked to the maintenance of the road network. Presently, all user charges however, are part of the State Budget. Consequently generating more financial resources through user charges requires raising existing rates. One possibility is to increase the fuel levy by a certain percentage to be earmarked for maintenance of roads and inland waterways. This would provide an additional source, even though through the State Budget, but may have more political support than an unlinked price increase particularly if the high rates of return and savings associated with maintenance are publicized. An ongoing World Bank project on road rehabilitation estimates that, on average, each dollar spent on periodic maintenance is expected to generate about 6 dollars over and above the normal rate of return in the economy.<sup>25</sup>

An alternative to raising user charges is to reduce the fuel subsidy and use a proportion of the savings for the maintenance of transport infrastructure. This approach may also

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<sup>25</sup> Project Appraisal Document for the Road Network Improvement project, November 24, 2003. The Net Present Value of a US \$21.3 million investment at a discount rate of 12% was estimated to be US \$132.3 million.

encounter less opposition in that the savings are being invested in the improvement of road conditions, and transport infrastructure in general, and could ultimately reduce the cost of transportation. An analysis of the impacts of reducing the fuel subsidy which has indeed reached high levels needs to be carried out. A proportion of the savings from the reduction in an economy wide fuel subsidy could be better targeted towards needy groups. Concerns about inflation would need to be carefully assessed. While prices will increase once the subsidy is removed, this will be a one time change in the price level. Moreover, freight costs would be expected to come down once the savings are invested in maintenance.

It is proposed that the increase in user charges and/or savings in fuel subsidies would only finance a proportion of maintenance. The balance would continue to be financed from the existing sources in the State Budget. This would have the advantage of linking a user charge to clear improvements without distorting the decision making process.

- Capture a proportion of the increase in the value of the land resulting from transport improvements

Transport projects, particularly large scale ones, often result in an increase in the value of surrounding land. The government can capture a proportion of the increase in land value associated with a transport project by buying a certain area of the land at the pre-improvement rate and later selling the acquired plots at the appreciated rate. Japan and Hong Kong, among others, have used this scheme to finance transport infrastructure. In addition, a proportion of the increase in property tax revenues associated with a project can be used towards financing the project. GoV may wish to consider developing a framework to help finance transport infrastructure using these schemes.

### *Financing infrastructure*

Infrastructure can be financed by the government (central or local) or by the private sector. Both sources need to be fully explored.

- Develop a framework for private sector participation in infrastructure finance

The contribution of private capital to the financing of transport infrastructure in Vietnam remains low. This source of financing can play a more prominent role in financing highways and expressways, and the development and upgrading of ports and airports, among other types of investment. Key to tapping this source is the development of a framework for private participation. The framework would set the principles for efficient risk sharing, define how contingent liabilities will be managed, and identify appropriate institutional and regulatory structures. Within the parameters of the framework, the different models of private participation can be considered and used. It is recommended that the framework evolve gradually over time using a series of simple projects and building on the gained experience.

The risk/reward tradeoff. Some level of government support or guarantee of traffic levels and/or revenues is not uncommon particularly with respect to toll road financing. Long term concessions for port development and management following the land lord model where the state owns the land, or the port if developed, and the private sector receives a long term concession for managing (and sometimes developing) the port has become one of the more common structures for operating ports. While traffic through the port and potential competition are important issues, there have been fewer cases of state guarantees of traffic than there have been in toll roads.

Figure 8 shows that the government's financial exposure can vary significantly depending on the level and type of support it offers to private investors in toll road

arrangements.<sup>26</sup> In developing a framework for private participation in toll roads, the government needs to define the extent to which it is willing to provide guarantees, if at all, on traffic/revenues, and the rewards commensurate with the risk exposure. At a fundamental level, a government guarantee of traffic or revenues does not seem like a wise idea. Traffic risk is a commercial/demand risk that a private entrepreneur would elect to bear for the right payoff. Evidence, however, indicates that governments have provided and continue to provide some form of guarantee of traffic levels.

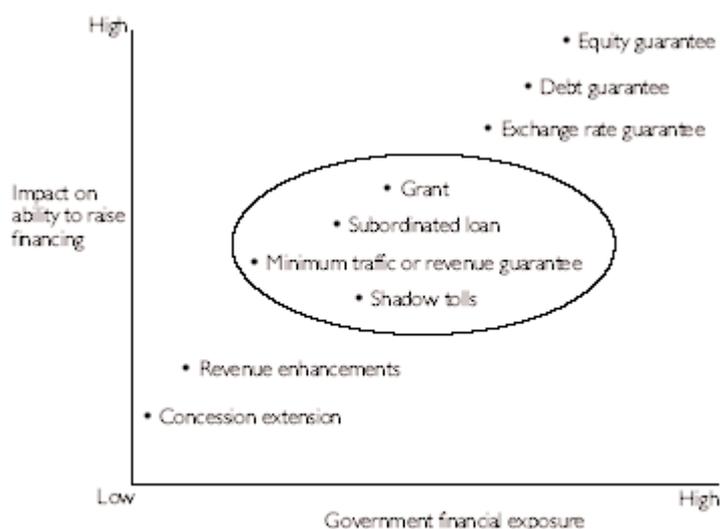
The Korean government, for example, employed a certain model according to which it guaranteed a certain level of traffic per annum, typically a percentage less than the forecast. If

this level was not met, the government would compensate the concessionaire. If the forecasted level was exceeded the government would receive a share of the additional toll revenues, hence receiving its reward for undertaking the risk. A different model would be to ensure that the returns earned by the concessionaire are lower than what would they would have been if there had been no guarantees. Other forms of support, short of guarantees, are extending the tenure of the concession to allow the concessionaire to earn his agreed upon return, providing concessionaires with subordinated loans if revenues fall below certain levels (as in the case of Mexico and Hungary), and designing revenue bound rather than time bound concession contracts (as in the case of Chile).<sup>27</sup> None of these schemes is perfect and

the pros and cons need to be considered when developing the toll road framework.

Managing contingent liabilities. Any form of traffic or revenue guarantee provided by the government creates a contingent liability. Without developing a framework for managing risk, for accounting for these possible liabilities and for paying them if they materialize, the government of Vietnam could end up exposing itself to significant financial risk. While it has not been uncommon for many departments and ministries of finance to provide the guarantees and be concerned about the contingent liabilities once they occur, there have been

**Figure 8: Government Support and Exposure in Toll Road Arrangements**



Source: "Private Financing of Toll Roads" G Fisher and S. Babbar

26 . While there are many risks associated with toll roads, the focus below is on traffic/revenue risk, an important risk to which there is no general consensus on how it should be borne.

27. Revenue bound contracts are defined in terms of achieving a certain level of revenues measured in present value terms irrespective of the time frame.

other more prudent approaches. One approach is for the Ministry of Finance to compute the expected annual payout on contingent liabilities undertaken on behalf of projects of each line ministry and subtract the expected payouts from the annual budgetary allocation for the concerned ministry. These payouts are credited back to the line ministry ex post in the event that the contingent liability does not materialize. Under this model, each line ministry is responsible for any contingent liabilities it creates.

Institutional and regulatory structures. The Vietnam Expressway Corporation (VEC) has been recently established to develop, finance, and manage expressways. MoT is at present in consultation with a number of development partners to define the responsibilities of VEC. One of the expected roles of VEC is letting concession contracts. Concessionaires, whether private, public or joint ventures, would build the roads, operate and maintain them. It is essential that concessionaries be selected through a competitive and transparent process. Most toll roads are regulated by contracts which clearly define pricing and adjusting mechanisms rather than by a regulator.

- Develop a framework for the use of national government bonds

Thirty percent of MoT's projects between 2001 and 2005 were financed by government bonds. Before issuing any further bonds for financing infrastructure, it would be advisable for the government to develop a framework that sets conditions for bond issuance for transport infrastructure. One of the major considerations for issuing bonds is whether the asset to be financed will generate revenues or not. In principle, toll roads, lend themselves to financing using the receipts from bond sales. Whether the government finances the toll road on its own or in partnership with the private

sector, bonds could be used to finance the government's share. This is only applicable to limited access roads and expressways where tolling is both practical and traffic volumes adequate to provide sufficient revenues to meet interest and principal repayment. Once the toll roads have reached a level of maturity in terms of traffic and debt repayment, they will generate a surplus cash flow beyond the associated bond servicing requirements. The surplus can be then used toward the development of new roads.

- Develop a framework for municipal finance

At present, municipal finance is utilized with some success in Vietnam's two largest cities. This source can continue to make significant contributions to infrastructure finance in large cities. However, it is unlikely that sub national borrowing can be relied on in many other cities or provinces as a significant source of local government revenue in the short term. This is due primarily to the high cost of infrastructure, relative to income levels and size of towns and provinces.

A sound framework for municipal finance is necessary for the development of this market. It will enable large cities to continue to mobilize local funds in a sustainable and prudent manner, and will help other provinces and cities develop their capacity to be able to realize this source of financing. Likely sources of municipal financing are bonds and local development investment funds (LDIFs).

Similar to the case of national government bonds, municipal bonds can be used to finance toll roads where the toll revenues provide sufficient assurance of payment. Using these instruments to finance non-toll roads requires a more careful analysis of the fiscal capacity of the local government.

LDIFs are emerging as an important source of sub national finance for infrastructure investment in Ha Noi and Ho Chi Minh City. It

is important to realize, however, that for most other cities and provinces, it will take several years before LDIFs can become an important contributor to the financing of transport infrastructure. It may be more practical and sustainable at this point to consider local development funds established at a regional level. The sustainable growth of this source of financing requires strong governance and an arms length relationship with the Provincial Peoples Committees. The strength of these funds would be in their ability to issue corporate bonds on a commercial basis and on the soundness of their investments. This, in turn, requires robust legal and regulatory frameworks as well as institutional and personal capacity development. It is imperative that all projects financed by LDIFs be subject to rigorous appraisal and the practice of exempting certain projects from analysis based on the source of financing be reconsidered and stopped as this clearly undermines the efficiency and transparency of the investment process.

GoV has recently disembarked on a study to assess the existing conditions for existing LDIFs and to outline general options for moving forward. The recommended next steps are to carry out a more detailed institutional analysis of existing LDIFs, their processes and procedures to fully assess their capacity, as well as a detailed financial analysis of LDIF accounts to better understand the financial picture and to help develop consistent standards of financial management.

### 3. Facilitating Sustainable Urban Growth

*Strengthen the planning and regulatory processes*

- Develop metropolitan/regional institutions

Effective planning for urban transport can be successful only if strongly linked to the urban

planning process. To ensure this link, there is a need to develop metropolitan/regional institutions to coordinate between local governments and drive a flexible planning process. These institutions also need to strengthen their implementation and monitoring capabilities to manage urban growth effectively.

- Develop efficient, high capacity, public transport systems

The limitations on the role that will be played by motorcycles as trip lengths grow, and the fact that private automobiles will continue to play a minor role in the coming two decades point to the need for another mode of transport. Successful development of efficient, high capacity, public transport systems—bus based systems in the short term, with a role for urban rail in the longer term—that ensure high quality access to commercial areas and central business districts, will be critical to facilitate continued urban growth. To overcome the fragmentation in planning, it is critical that all elements of the public transport system are coordinated, integrated and present the ‘customer’ a seamless experience. Unified responsibilities would help in prioritizing expenditures and would demonstrate that some investments (such as urban metro systems), however beneficial, may need to be deferred to the future.

- Continue the land reform process

Though the current land law is a step in the right direction in recognizing market values of land, there are still various issues that need to be addressed with respect to the process of land takes for public infrastructure. Additional reforms are still needed to normalize urban land titles and to tie compensation levels to market valuations of land so that the land-take process can be streamlined in an equitable and transparent manner.

- Continue the reform process in public bus transport

It is recommended that bus routes be awarded on the basis of fixed-term contracts established by competitive bidding. International experience suggests that minimizing the financial burden associated with a particular level-of-service and fare level can be effectively achieved this way and is preferred to the current ad hoc manner of awarding routes and subsidies based on detailed cost audits. Further, it is important that the public regulatory agency retains control of planning, and revenue management functions across all modes of public transport to remove one of the oversight biases. The capacity of regulatory agency needs to be developed to meet its new responsibilities.

*Develop a sustainable financing paradigm for public transport*

In 2003, revenues covered less than half the cost of providing bus services. While, at present, there is a strong political will in both Hanoi and HCMC to underwrite the promotion of public transport with public subsidy, if the subsidies continue to grow at the rate ridership has grown and is forecast to continue to grow, it would be necessary to ensure that the deficits/subsidies can be sustained. These need to be forecasted and sources of financing the deficits identified.

*Adapt international traffic management practices and develop new ones.*

Traffic organization will improve with the implementation of the proposed national transport safety strategy. Other interventions with a more direct focus on traffic management are also necessary. While indeed international good practices are not fully transferable, the standard tools of international traffic management such as roundabouts and junction channelization can be modified for a

predominantly motorcycle traffic stream and be effectively used in the Vietnam. The use of these tools together with traffic lights, medians, and an enhanced focus on a properly maintained secondary road system will significantly enhance the efficiency of traffic flows. There is also a need to create a culture of traffic management based on pilots and a willingness to experiment. A requisite for creating such a culture is better coordination between the Departments of Public Works and the Traffic Police.

#### **4. Managing the Negative Impacts of Transport**

*Implement transport safety plan*

A transport safety strategy for Vietnam was developed in mid 2003 building on the road safety priorities identified in the National Program for Traffic Safety. The aim of the strategy was to more sharply focus the specification, the targeting and delivery of proposed interventions as well as support a broader range of initiatives within an integrated safety management framework.

The implementation of the strategy is planned in three phases: an 'establishment' phase, a 'growth' phase and a 'consolidation' phase. Each 5-year phase is intended to create the knowledge and experience necessary to move efficiently and effectively to the next phase. For example, it is unrealistic to set ambitious national, city and provincial performance targets until the data analysis tools have been built and some quality data have been collected. Likewise, it is unrealistic to identify and establish sustainable funding mechanisms before cost-effective approaches have been identified and robust business planning processes and related financial management systems have been established.

The emphasis at present, is the first phase which aims to educate and enforce a substantial

shift from low levels of road user compliance with existing safety standards and rules to considerably higher levels of compliance, while at the same time making a start on the work that aims in the medium to long term to improve safety standards and rules and extend their application, further improve compliance within a robust performance management framework and to consolidate implementation arrangements. Among the urgent and necessary short term measures is the need to amend the statute in the law that provides a waiver from the obligation to wear helmets inside city limits. Detailed actions are presented in the Transport Safety Strategy Review.<sup>28</sup>

#### *Develop a policy for managing congestion*

Policies to limit congestion have not borne much fruit. There is a need in both Ha Noi and Ho Chi Minh City to develop a comprehensive policy on managing congestion that includes consideration of restrictions on ownership and use of both motorcycles and cars, a parking policy, promotion of non-motorized modes for short trips and more effective traffic management. Though car ownership is low (in part because of high auto taxes levied by the Central Government, and some municipal regulations such as a requirement in Hanoi to demonstrate availability of parking before an auto can be registered) there is an urgent need to focus on auto use restrictions. Motorization levels are rising, and even a small increase in auto traffic will significantly increase congestion. In the longer term, the cities need to consider market-based methods to manage private vehicle ownership (auctioning titles) and use (congestion charges, parking charges). In this context, the development of a current vehicle registration system for all vehicles including motorcycles which requires users to update their registration regularly (annually,

every two years) will be key to enforcement efforts. Such a system is a basic tool that will also be a cornerstone of any attempts to manage traffic compliance, safety and air quality.

#### *Develop pollution control strategies*

To control pollution, both Ha Noi and Ho Chi Minh City need to develop a better understanding of transport's contribution to pollution and as appropriate develop control strategies including promotion of non-motorized modes for short trips and the development of inspection and maintenance programs.

## **5. Institutional and Human Resource Capacity**

#### *Develop a long term capacity development framework*

The accomplishment of the transport sector's goals requires significant capacity development. To avoid ad hoc and incomplete institutional reform and capacity development initiatives that are often not very effective, a comprehensive capacity development framework with a realistic long term view for implementation needs to be prepared. This would address needs at three main levels: the enabling environment (policies and laws)-building on the findings from the recently completed regulatory review, organizational development, and human resource development.

#### *Strengthen implementation capacity*

- Consider alternative project management structures and design sound incentive systems

Project management systems vary from individual PMUs managing individual projects to a central authority responsible for all projects.

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28. Annex 5 of the June 12-30, 2003 Aide Memoire, "World Bank Transport Safety Strategy Review".

The legal status and independence of PMUs can also vary from stand alone PMUs to ones attached or better integrated with central implanting agencies or ministries. Irrespective of the management systems used for project management, an incentive system needs to be designed to ensure that the desired objectives are satisfactorily accomplished. Performance is to be assessed against clearly defined targets, with rewards for good performance and strict penalties for poor performance.

Even in the presence of a sound incentive system, the current system of project management through PMUs has a fundamental weakness when it comes to long term capacity development in MoT. While timely and satisfactory project implementation is an important goal for GoV and development partners alike, building capacity in the line ministry is even more important for the sector's development and projects' sustainability. The latest version of the construction law recommends moving PMUs under the modal administrations such as VRA and VIWA. It is the recommendation of this report that this process is started as soon as possible.

Implementation through a central level agency or ministry has a clear advantage when it comes to building long term capacity. This is also consistent with the need to strengthen the overall planning of the sector where one body is responsible for management of the network. But the focus on the management of a particular project might not be as strong. The Bank's experience in Latin America indicates that the advantages of implementation through central (or integrated) units far exceed those of

autonomous units in terms of ownership, learning and sustainability.<sup>29</sup> Lao PDR provides a good example from the region for implementation through a central agency.<sup>30</sup>

- Define clearly the roles and responsibilities of PMUs, contractors and supervision consultants; and enforce contracts

To avoid the dilution of the roles of supervision consultants, and often PMUs, in ensuring good quality and timely implementation, responsibilities of the different players have to be clearly defined contractually and contracts need to be enforced. Unless MoT can maintain an arms length from its implementing SOEs, indeed a difficult task, the quality of implementation will continue to be in question and supervision consultants will have little value added. This is a further argument for the equitization of MoT's SOEs. Figure 10 provides the main roles for the client, engineer and contractor during contract implementation. If quality is to be maintained these roles have to be undertaken independently of each other.

- Simplify the Approval Process

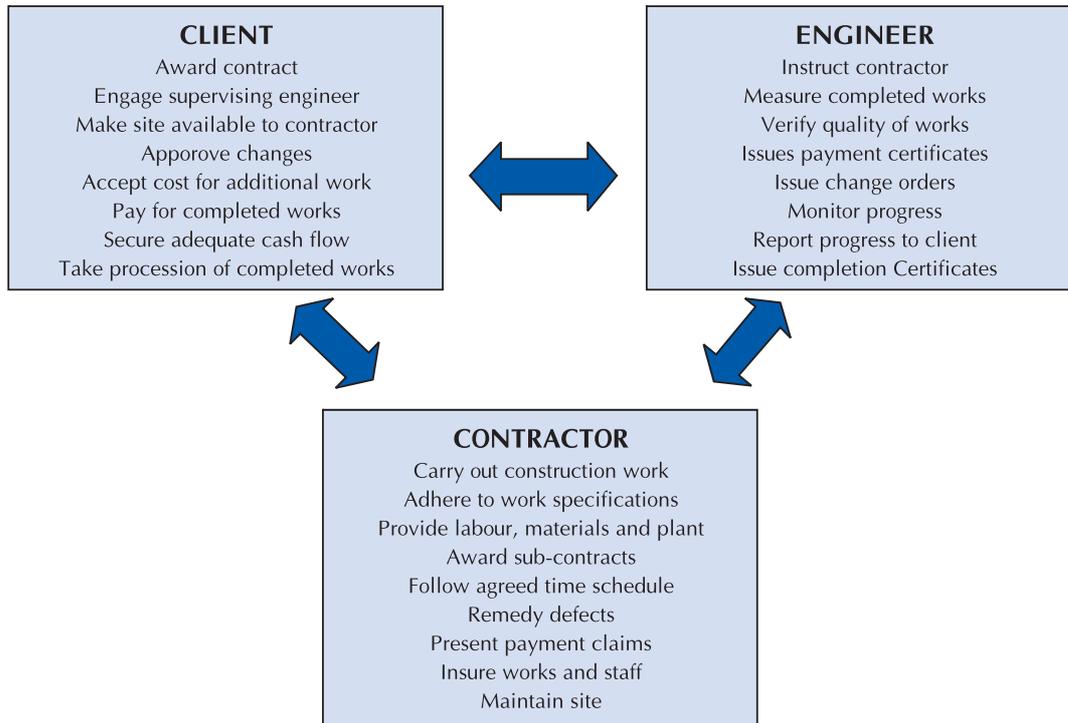
The first step in simplifying the approval process is to carry out an audit of the required approvals. The purpose for each approval and the time it usually takes to secure it are then to be examined with the objective of eliminating and combining approvals, and shortening durations where possible. Once the process is simplified and durations for approvals defined, MoT can widely publish the new rules using the different media channels including the internet to ensure wide circulation and transparency.

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29. Thematic Review on Project Implementation Units, An Analysis of Ongoing and Completed Projects in Latin America and the Caribbean, By Daniel Boyce and Afef Haddad, March 2001.

30. Development partners worked with the government to promote the "One Country-One System" principle where unique management systems are endorsed and used by all. Implementation, which was handled by four separate project implementation units (PIUs) – one for each donor – was shifted to the Ministry's Department of Roads.

**Figure 10: Roles of Client, Engineer and Contractor**



Source: ILO-ASIST

Simplifying the system of approvals, shortening the duration needed to secure them, removing uncertainty and openly publishing the new rules are likely to have many benefits. Not only will this improve the project planning process and enhance the business environment, it will also reduce the probability of expiration in the validity of bids submitted due to the present lengthy approval processes.

*Speed up the implementation of measures to strengthen governance*

The measures taken by GoV to curb collusion in procurement need to be both sped up and augmented by other policies. There will be a need to develop the capacity of the relevant procurement authorities to strengthen their ability to identify collusion between contractors. Transparency can be further increased by making access to bidding documents freely available. Having a representative from the

community sit on the bid evaluation panel is another way to reduce collusion. Without an effective sanction mechanism, it is unlikely that the complaints mechanism in the draft law will curb collusion. A centralized database needs to be established to support the black listing approach followed by GoV. At present, firms blacklisted due to collusion in one province can still be awarded contracts in other provinces due to a lack of such a database.

*Develop the capacity of the Vietnam Road Administration*

Even though VRA was established to manage the development and maintenance of the national road network, this has not been the case and the responsibilities are fragmented between VRA and other departments within MoT. To raise the efficiency and effectiveness of planning in the road sector, VRA needs to be empowered and the capacity of its staff

developed. As VRA has received, and continues to receive capacity building under different projects and programs, some of which are supported by development partners, MoT and VRA need to coordinate the different efforts to ensure direct, sound and practical linkages to the management systems and reforms being implemented.

#### *Harmonize the different resettlement policies*

Vietnam's resettlement policies have come much more in line with those of the development partners recently. But some differences remain. The complexity and confusion that emanate from the need to adopt different resettlement policies depending on whether the project is receiving financing from the Bank, other development partners or only from the government needs to be reconsidered following the "one country, one system" principle. All development partners and GoV need to work together on converging on a common set of resettlement policies. Recently, the World Bank has sanctioned the piloting of country systems under certain conditions of equivalence of policies. Throughout this ongoing process of evolving resettlement policies, it is important that sufficient attention be devoted to capacity building particularly at the local level to ensure awareness of the different policies until one set of policies is adopted.

#### *Strengthen enforcement and compliance*

It is important that Vietnam develop and implement a system for vehicle inspection that ensures that standards are adhered to. The implementation can be phased starting with cities and regions where the problem is perceived to be severe. The initial focus can also be limited to trucks. Implementation in other geographical regions and for other modes can then follow.

Traditional approaches to enforcement of

truck loads in many developing countries have not been very successful. This would warrant experimenting with new approaches, some of which accept the fact that truck overloading will exist. A combination of measures addressing both the supply and demand side of the issue can be considered. There is a need to assess the tradeoff between building the road to a higher standard (to withstand higher axle loads) and building it to normal standards and rehabilitating it upon damage. By carrying out a detailed analysis using field surveys and the HDM models that have been recently operationalized by VRA, it would be possible to determine the standard of pavement that would lead to the least cost to society under different scenarios of overloading. The analysis can be expanded to include the impact of different loads on the cost of freight as well. The results could be tested at a small scale in specific regions.

Irrespective of the permissible axle loads, some level of enforcement is necessary. More effective control could be achieved by involving road users in the management of the vehicle inspection stations and by focusing inspection on key roads for freight movement where overloading is typically common. A pilot project for controlling truck overloading using performance pay schemes in managing the weigh stations together with the government is producing positive results in Sumatra, Indonesia but has not been in operation long enough to prove sustainable.

#### *Develop capacity at the local level*

Better decision making at the local level requires further capacity development. For the effective preservation of local transport networks, it is necessary to develop a simple information database of existing assets and their conditions as a first step towards efficient management. The existence of this information would increase the awareness of the central

government of the needs of the different provinces. Developing the capacity of local governments to better manage their assets needs to be a priority. MoT is the ideal candidate to play a central role in building the capacity of local governments in this area. In addition, and apart from building capacity of local governments, there is a need to provide

some basic training to the general public at the local level to help them understand the basis for resource allocation.

In developing the capacity of the Provincial Transport Authorities (PTA), it is important to ensure that these efforts are well coordinated and integrated with overall capacity building efforts at the provincial government level.

## Annex 1

### Policy and Institutional Framework

#### A. Sector Objectives

The government's objective for the sector is to develop a modern transport system that provides high quality services and efficient and affordable transport and ensures transport safety and sound environmental practices.<sup>31</sup>

#### B. Key Strategy and Policy Considerations

Prime Ministerial Decision (PMD) No. 206/2004/QĐ-TTg dated December 10, 2004 outlines the Transport Sector Development Strategy (TSDS) to 2020. TSDS has been developed to support Vietnam's various economic development plans, notably, the ten year (2001-2010) Socio Economic Development Strategy (SEDS) and the Comprehensive Poverty Reduction and Growth Strategy (CPRGS). In addition to general recommendations on developing transport infrastructure and services, SEDS specifically mentions the upgrading of Highway No. 1, the construction of the Ho Chi Minh Highway and the development of roads leading to the borders of neighboring countries in the Greater Mekong Sub-region as priorities. SEDS strongly endorses the development of public transport services and long term transport planning in large cities and cites the rising rate of traffic accidents as a concern.

Vietnam has found success in its trade-led

growth agenda and its medium and long term socio economic development plans continue to support this strategy devoting particular attention to the three economic focal zones in the north, center and south. These zones, particularly, the northern and southern focal ones are perceived as economic engines of growth that can pull surrounding regions out of poverty and help propel the entire country forward. Socio economic development plans are also developed for Vietnam's eight regions: northeast, northwest, Red River delta, north-central, central-coast, central highlands, south east and the Mekong delta.

Naturally, the emphasis and priorities vary among the regions depending on the main economic activities in the region and the comparative advantage of each transport mode. For the northern, Red River delta and southeastern regions, the socioeconomic strategies emphasize the up-gradation of seaports, airports and main national highways and corridors leading to the ports and borders as well as transport corridors linking Hanoi to its neighboring provinces and feeder routes connecting to these corridors. For the three central regions, the priorities are deep sea ports and road connectivity to the central highlands as well as to Lao PDR and Cambodia. For the Mekong delta, the emphasis is on upgrading and completing the road and inland waterway networks. National roads connecting provincial towns, inter-district and rural networks, river

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31. Adapted from "Vietnam's Transport Development Orientation for the Next Decades" on MOT's website: <http://www.mt.gov.vn>.

ports and the upgrading of bamboo bridges are among the plans' key priorities.

TSDS articulates policies, sets priorities and defines some targets for transport infrastructure, services, and industry. Some of the strategy and policy statements are general while others are sub sector specific. The latter are presented in the discussion of the respective sub sectors below. The main elements of the strategy are:

- A balanced approach to transport development taking into account the country's geographical shape.
- Prioritization of maintenance and upgradation of existing assets.
- Prioritization of rural transport infrastructure especially in mountainous and remote regions.
- Prioritization in new investment to the north-south backbone, important economic zones, large urban areas and key links to neighboring countries.
- Prioritization in the urban sector to mass transit.
- Increasing the local content in ship and automobile construction and repair.
- Increasing the share of domestic enterprises in the international transportation of Vietnamese goods.

TSDS lists several policies that are to govern the implementation of the development strategy. These include:

- Targeting domestic and foreign sources of finance, both private and public, and charging users for the construction and maintenance of infrastructure whenever possible.
- Encouraging private sector participation by speeding up the equitization of state-owned enterprises and separating state

management from operations and business.

- Ensuring transport safety and environmental protection in all transport related business.
- Utilizing new technologies and processes in construction and operations.

## C. Governing Sectoral Policies and Plans; and Laws and Regulations

### *Road Infrastructure and Transport Services*

The road sector is the only transport sector whose policy has been articulated in a Prime Ministerial Decision (PMD). PMD 162/2002 sets out the government's policy for the national, provincial, urban and rural roads.<sup>32</sup> While the Decision contains some general statements on the aim to enhance maintenance capacity, the focus of this policy document is on new infrastructure needs, particularly for national roads. The Decision presents the Government's plan to cap ownership of motorcycles in Vietnam to 13 million in 2005 and to restrict annual growth using economic and technical measures to less than 10% beyond 2005. Little attention is given to road safety in the document.

The Decision states that all **national** roads will be sealed by 2005. It identifies the national roads that will be upgraded or constructed within each of Vietnam's three main economic zones and the north-south backbone. It also lists over 1,400 kms of 4/6 lane expressways to be built by 2010.

The Decision sets the standards to which certain classes of **provincial** roads will be raised and states that 60% of provincial roads will be sealed by 2005 and 100% by 2010. Decision 162/2002 has also set the targets of 60% all weather **rural** roads by 2005 to increase to 90% by 2010. Eighty percent of all rural roads will

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32. Prime Minister Decision No. 162/2002/QD-TTg "Approving the Planning and Development of Vietnam's land-road communications and transport sector till 2010 and Orientations till 2020", November 2002.

have a hard surface by 2005, of which 30% will be concretized.

The policy statement contains relatively little about sources of finance. It foresees the use of tolls and an additional fuel tax and identifies a number of steps to attract further ODA and FDI. The Decision states the intention to consider the formation of a Road Maintenance Fund. This has been a strong objective of MoT, but an attempt to include provision for such a fund in the Road Law was rejected by the Ministry of Finance as it appeared broadly defined in scope as a Transport Sector Fund.

The major law governing the road sector is law No. 26/2001/QH10 which was passed by the Xth National Assembly of the Socialist Republic of Vietnam, at its 9th session in 2001. Although known as the Law on Road Traffic, the scope of the law is broad as it covers both infrastructure provision and road use. The Law on Road Traffic establishes traffic and road safety rules, defines six classes of roads (national highways, provincial roads, district roads, commune roads, thoroughfares, and special-use roads) and the responsibilities for their financing and administration.

Government Decree No.186/2004/ND-CP was passed in 2004 to define issues that were only broadly addressed in the law. Among others, the Decree established technical standards for the definition of the different road classes, identified some principles for infrastructure planning and project approval and defined regulations to govern BOT schemes for roads, land acquisition and environmental assessment.

### ***Urban Transport***

Developing policy for urban transport is the responsibility of the cities although the central government retains great influence through its role as the approving authority for major plans and major investments. Both HCMC and Hanoi are forecast to triple their official populations in

the 2000-2020 periods. Urban transport policies are devised to support cities accommodate the significant increases in population. PMD 162/2002 sets some targets for urban roads for Ha Noi, Ho Chi Minh City and medium size cities for the short, medium and long term. For Vietnam's two largest cities, the strategic foci are to promote and develop public transport, and to develop road infrastructure to alleviate congestion, and as appropriate open up new areas for urbanization.

Following with the SEDS, in the past few years both Hanoi and HCMC have made concerted efforts to promote public transport as a key element of their urban transport strategies. In 1998, the Prime Minister issued Decision No.108/1998/Qd-TTG on the general planning of Hanoi up to 2020. The plan foresees the development at the periphery of the city, mostly to the west of Hanoi. It sets targets for the use of space by transport projects at 25% of urban land and 25 square meters per person. The plan also sets the goals of a 30% mode share for public transport in 2010 and a 50% share for 2020. It provides guidelines for bus planning (scheduling, planning of terminals, spacing of stations, etc) and gives priority to the construction of an urban railway system. Over the course of a series of decisions (No. 34/2003 NQ/HD, and No. 72/2004/QD-UB following No. 71/2004/QD-TTg of the Prime Minister), Hanoi PC established priorities to promote public transport and to reform the public bus sector. The City is also planning a mass transit system that includes BRT corridors and various rail systems (including a light-rail system and suburban rail lines).

HCMC PC's plans are likewise articulated by Decisions No. 02/2001/CT-UB, No. 45/2002/QD-UB and 2002 Official letters No. 89/UB-DT and No. 1637/UB-DT which lay out a pilot 'model bus scheme' to encourage bus use. The city's master plan focuses on bus system development through 2010 and

significant investments in urban rail by 2020 and has set the goal of raising the public transport mode share to 20% by 2010, a 6-fold increase over 2005 ridership levels. Both Hanoi and HCMC are also taking a series of complementary steps to limit the ownership and use of motorcycles.

### *Maritime and Shipping*

A number of documents articulate the government's policy on port development. The most important are the policy on maritime transport development (2003 Decision No. 1195/2003/QD-TTg), the seaports network development master plan to 2010 (1999 Prime Ministerial Decision No. 202/1999/QD-TTg) and a document issued by the Vietnam National Maritime Bureau (Vinamarine).<sup>33</sup> The strategy is to rehabilitate existing key facilities, focus on the construction of deepwater ports at the focal economic zones to serve vessels over 30,000 DWT while also developing small scale satellite ports to serve the local economy. Two of the government's key projects are Van Phong, a transshipment port in Khanh Hoa in central Vietnam and Cai Mep, a deep sea port in Vung Tau to serve southern Vietnam. The rehabilitation and construction of a total of 114 ports in 8 port complexes is planned by 2010. As a matter of government policy, the construction of new ports or berths that would compete with existing national ports is prohibited.

In addition to port development, the Government plans to develop its fleet of container vessels and tankers, and ship building facilities. Vinamarine has set a target of a 30%-40% Vietnamese share of the international maritime shipping of Vietnamese goods by 2010.

Until the end of 2005, maritime operations will be governed by the 1990 Maritime Code of Vietnam. It was revised and approved by the National Assembly in May 2005 and comes into effect in January 2006. Ninety percent of the articles in the 1990 Code have been revised. The implementation of the Maritime Code is supported by several legal documents. Among the key documents are Government Decrees No. 10/2001/ND-CP of 2001 addressing maritime service provision, No. 40/1998/ND-CP on the conditions for granting shipping business permits, No 160/2003/ND-CP on opening and closing of seaports, maritime safety, and procedures for investment and construction of seaports. The Code regulates the sea-going ships' registration and ownership, seaports and port authority, cargo and related matters.

### *Inland Waterways*

Prime Ministerial Decision No.16/2000/QD-TTg ratifies the master plan for the development of Vietnam's inland waterway system through 2020. The plan lists landing stages and ports that will be upgraded and equipped with modern loading equipment (targeting at least one port/landing stage per province, mostly in the South) and identifies several waterway channels for improvement and upgrading. The government's objectives listed in the plan also include the modernization of inland waterway navigation to meet international standards and the building of inland waterway vessels. The Decision requires MoT to submit to the Prime Minister proposals on possible sources of finance and policies for mobilizing capital.

The sector is governed by the recently passed Law No. 23/2004/QH 11 on Inland Waterway

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33. "The Development of Vietnam's Sea Port System till the year 2010" Document is on the MoT's website: <http://www.mt.gov.vn>.

Navigation. The law addresses both the use and development of the waterways. Issues covered under use include conditions to ensure safety for people, infrastructure and vessels. The law provides guidelines for the planning, management, construction and maintenance of infrastructure. The implementing regulations have not been finalized yet.

### ***Railways***

Prime Ministerial Decision 34/2003/QĐ-TTg issued in March 2003 established the state-owned Vietnamese Railway Corporation (VRC) to operate the railways. Decree 34/2003/ND-CP issued in April 2003 placed the policy and regulatory functions within the Vietnam Railway Administration (VNRA), a modal administration under MoT. VNRA is responsible for the development of the rail sector and also oversees the performance of VNC. A new law (NA No.35/2005/QH11) was passed by parliament in June 2005. The law provides a framework for separating infrastructure and operations, and for the possible operation of trains by third parties. The implementing regulations have not been finalized yet.

### ***Civil Aviation***

PMD No. 206/2004/QĐ-Ttg outlines the upgrading and expansion of existing international and domestic airports, and the building of new ones as objectives for the sub sector. Specific airports throughout the country are mentioned in the Decision. The construction of Long Thanh International airport in Dong Nai province to replace Tan Son Nhat airport in Ho Chi Minh City at the estimated cost of US \$3 billion for the first phase

(2006-2010) is the largest airport project currently under consideration.

The Law on Civil Aviation passed in December 1991 and amended in June 1995 together with a number of other decisions and decrees govern the aviation sector in Vietnam. They regulate (i) aircraft registration and ownership; (ii) use and management of airports and landing areas; (iii) aircrew; (iv) navigational issues; and (v) other activities and functions such as cargo movements, fare setting, and liability. The amended law clarifies the role of state management in civil aviation including airports and landing areas. Under this amendment, the airport authority, which used to be the Airport Department under the Ministry of Transport, Communication and Post, was recast as a Specialized Agency for State Management of Civil Aviation (also known as the Civil Aviation Administration of Vietnam-CAAV) reporting directly to the Council of Ministers.

### ***Multi Modal Transport***

MOT stresses the goal of organizing “optimum transport conditions on the entire network by properly distributing modes of transport and using advanced technologies, especially multi-modal transport technology in cargo handling”.<sup>34</sup> Government Decree No. 125/2003/ND-CP of October 2003 stipulates the scope and regulations for international multi-modal activities carried out by national and foreign entities. Certain articles of the Commerce Law also define rules for commercial activities relating to logistics services; and a number of decisions define customs procedures relating to the movement of goods by international multi modal transporters, as well as to vessel movement.

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34. “Vietnam’s Transport Development Orientation for the Next Decades” on MOT’s website: <http://www.mt.gov.vn>

Table A1 provides the main legal and regulatory provisions governing the transport sector in Vietnam.

#### **D. Planning and Programming**

**The Ministry of Transport (MoT)** has the responsibility for planning, managing and maintaining national transport infrastructure, and for assisting local governments in project selection. MoT prepares long term transport

strategies, 5 year plans for inclusion in the Public Investment Program and one year plans for inclusion in the annual State Budget. While transport strategies generally transcend local government boundaries, the 5-year and annual plans prepared by MoT are limited to national infrastructure. Figure A1 present's key government institutions related to the transport sector and Table A2 presents the key players involved in the transport sector and the roles they play.

**Table A1:****Main Legal and Regulatory Provisions Governing the Transport Sector**

Sector	Legal Provision	Purpose
Transport	<p><b>Transport Sector Development Strategy To 2020</b> (PMD No. <i>206/2004/QĐ-TTg</i>)</p> <p><b>Responsibilities of Ministry of Communication and Transport</b> (Gov. Decree No. <i>34/2003/ND-CP</i>)</p>	<p>Articulates Vietnam's transport policies, set priorities and defines some targets for transport infrastructure, services and industries.</p> <p>Specifies functions, responsibilities, and organization of Ministry of Communication and Transport.</p>
Roads	<p><b>Road Transport Plans To 2010 and Orientation to 2020</b> (PMD No. <i>162/2002/QĐ-TTg</i>)</p> <p><b>Road and Traffic Law</b> (NA Order No. <i>26/2001/QH10</i>)</p> <p><b>Management of Road Infrastructure</b> (Gov. Decree No. <i>186/2004/ND-CP</i>)</p> <p><b>Establishment of Vietnam Investment and Expressway Development Corporation (VEC)</b> (MoT Decision No. 3033/QĐ-BGTVT, October 2004)</p> <p><b>Vehicle inspection - nationwide</b> (Ministry of Transport Decision No. 4134/2001/QĐ-BGTVT)</p>	<p>Sets out government policy for national, provincial, urban and rural roads.</p> <p>Establishes traffic and road safety rules, defines six classes of roads and the responsibilities for their financing and administration.</p> <p>Establishes technical standards for the definition of the different road classes; and defines procedures for infrastructure planning and project approval.</p> <p>Specifies the broad responsibilities for VEC. Organizational and operational charter of the company to be established by the Board of Directors.</p> <p>Defines rules and procedures for 4-wheel motor vehicles to undergo regular vehicle inspection for technical safety and environment protection</p>
Inland waterways	<p><b>Inland Waterway Development Master Plan to 2020</b> (Prime Minister Decision No. <i>16/2000/QĐ-TTg</i>)</p> <p><b>Law on Inland Waterway Navigation</b> (NA Order No. <i>23/2004/QH11</i>)</p>	<p>Lists landing stages, ports and waterways to be upgraded; outlines targets for the development of a fleet of inland waterway vessels.</p> <p>Regulates inland waterway activities, infrastructure, vessels, and safety.</p>
Railways	<p><b>Establishment of Vietnam Railway Corporation -VRC</b> (PMD No. <i>34/2003/QĐ-TTg</i>)</p> <p><b>Establishment of Vietnam Railway Administration -VNRA</b> (Decree No. 34/2003/ND-CP)</p> <p><b>Railway Law</b> (NA Order No. 35/2005/QH11)</p>	<p>Establishes the corporation as the operator of rail services.</p> <p>Places policy, development and regulatory functions in VNRA.</p> <p>Regulates railway activities, including investment, construction, and management of infrastructure, management of vehicles and participants on train operations, railway traffic, safety.</p>
Urban Transport	<p><b>General Planning for Hanoi to 2020</b> (PMD No. 108/1998/QĐ-TTg)</p>	<p>Provides guidelines and targets for public transport development and operations; and for land use by transport infrastructure.</p>

**Table A1:**  
**Main Legal and Regulatory Provisions Governing the Transport Sector (continue)**

	<p><b>Bus regulation in Hanoi</b>  (Decisions No. 34/2003/NQ-UB, and No. 72/2004/QD-UB following PMD No. 71/2004/QD-TTg)</p>	<p>Promotes public transport. Sets provisions allowing private sector participation in the provision of public bus services; sets the principles for developing a bus transport master plan and the role of the state in managing public transport.</p>
Ho Chi Minh City	<p><b>HOUTRANS (official status not yet clear)</b>  <b>Public Transport in HCMC</b>  (Decisions No. 02/2001/CT-UB, No. 45/2002/QD-UB and Official letters No. 89/UB-DT and No. 1637/UB-DT)  <b>Urban traffic congestion prevention program in HCMC</b>  Decision No. 72/2005/QD-TTG</p>	<p>Master plan that lays out investment strategy including a focus on bus development until 2010.  Plan to promote public transport. Describes 'Model Bus' scheme on pilot routes with increased frequencies new (government subsidized) buses and associated improvements in infrastructure.  5 point program on urban traffic congestion prevention. Includes technical measures, education and enforcement, traffic management, construction of new infrastructure projects; and enhancing public transport while restraining private vehicle ownership and use.</p>
Maritime and Shipping	<p><b>Policy on Maritime Transportation Development</b> (PMD No. 195/2003/QD-TTg)  <b>Seaports Network Development Master Plan to 2010</b> (PMD No. 202/1999/QD-Ttg)  <b>Maritime Code</b> (National Assembly Order in 1990; revised in May 2005)  <b>Maritime Business Conditions</b> (OG Decrees No. 10/2001/ND-CP)  <b>Private Shipping Enterprises</b> (OG Decree No. 40/1998/ND-CP)  <b>Management of Maritime Activities</b> (Decree No. 160/2003/ND-CP)</p>	<p>Sets goals for the country's maritime transport development plan through 2010 with orientation towards 2020.  Specifies the improvement and upgrading of existing seaports in eight port groups; and the development of related infrastructure and navigation services.  Regulates sea-going ships' registration and ownership, seaports and port authority, cargo and related matters.  Regulates maritime business activities and conditions.  Regulates licensing conditions and procedures for private shipping enterprises.  Regulates opening and closing of seaports, and maritime safety; sets procedures for investment and construction of seaports</p>
Civil Aviation	<p><b>Law on Civil Aviation</b> (NA Order in 1991; amended in 95)</p>	<p>Provides for the technical and economic regulation of airports, aircraft and navigation.</p>
Multi modal transport	<p><b>International Multimodal Transportation</b> (Gov Decree No. 125/2003/ND-CP and Circular No 10/2004/TT-BGTVT)  <b>Law on Commerce</b> (NA order No. 10/2005/XX)  <b>Custom Procedures on Goods</b> (Decision No. 125/2004/QD-BTC)  <b>Custom Procedures on seagoing vessels</b> (Decision No. 57/2003/QD-BTC)  <b>Electronic Data Interchange (EDI)</b> (Decision No. 149/2005/QD-BTC)</p>	<p>Stipulate scope and regulations for international multimodal activities.  Defines rules relating to logistics services  Defines the procedures on goods carried by international multi-modal transport  Defines the procedures on seagoing vessels entering, departing and transiting Vietnam  Standardizes custom procedures for use with EDI (using pilot projects in Ho Chi Minh City and Hai Phong)</p>

**Table A2:**  
**Policy, Regulatory and Oversight Responsibilities**

Sector	Ministry/Administration	Responsibility
Transport	<p><b>Ministry of Transport (MoT)</b></p> <p><b>Transport Development Strategy Institute (TDSI) -under MoT</b></p> <p><b>Department of Planning and Investment (DPI) -under MoT</b></p>	<p>Through its different modal administrations and departments, its mandate is:</p> <ul style="list-style-type: none"> <li>• Planning, managing and maintaining national infrastructure through its different departments and administrations.</li> <li>• Assisting local governments in developing transport plans and selecting transport projects</li> <li>• Managing public bus transport plans by approving cities master plans</li> <li>• Develops long and medium term transport sector strategies and plans (in collaboration with <b>modal administrations</b>)</li> <li>• Integrates investment plans prepared by modal administrations for submission to MPI for inclusion in the PIP and to MOF for inclusion in the State Budget.</li> </ul>
National roads	<p><b>Vietnam Expressway Corporation (VEC) -under MoT</b></p> <p><b>Vietnam Road Administration (VRA)—under MoT</b> VRA operates through 4 <b>Regional Road Management Units (RRMUs)</b> Designated <b>Provincial Departments of Transport (PDoTs).</b></p>	<p>Mandated by MoT</p> <ul style="list-style-type: none"> <li>• develop, finance, manage and maintain expressways</li> <li>• collect toll revenues</li> <li>• invest in off road construction and services (such as rest areas)</li> <li>• Plans and manages the development of the national road network.</li> <li>• Maintains the national road network</li> <li>• Mandated by MoT/VRA to manage half of the national road network</li> </ul>
Local roads: (Provincial, District and Commune)	<p><b>VRA</b></p> <p><b>Provincial Departments of Transport (PDoTs),</b></p> <p><b>Provincial People’s Committees (PPC)</b></p> <p><b>District Departments of Transport (DDoTs), and Communes Peoples’ Committees (CPC )</b></p>	<ul style="list-style-type: none"> <li>• Performs a central planning and advisory role for the local road network.</li> <li>• Develop provincial, district and commune transport strategies</li> <li>• Plan and manage the construction of provincial road networks.</li> <li>• Maintain provincial road networks.</li> <li>• Support district and commune governments in planning the maintenance of their networks</li> <li>• Approve provincial transport strategies and plans.</li> <li>• Approve district and commune transport plans.</li> </ul>

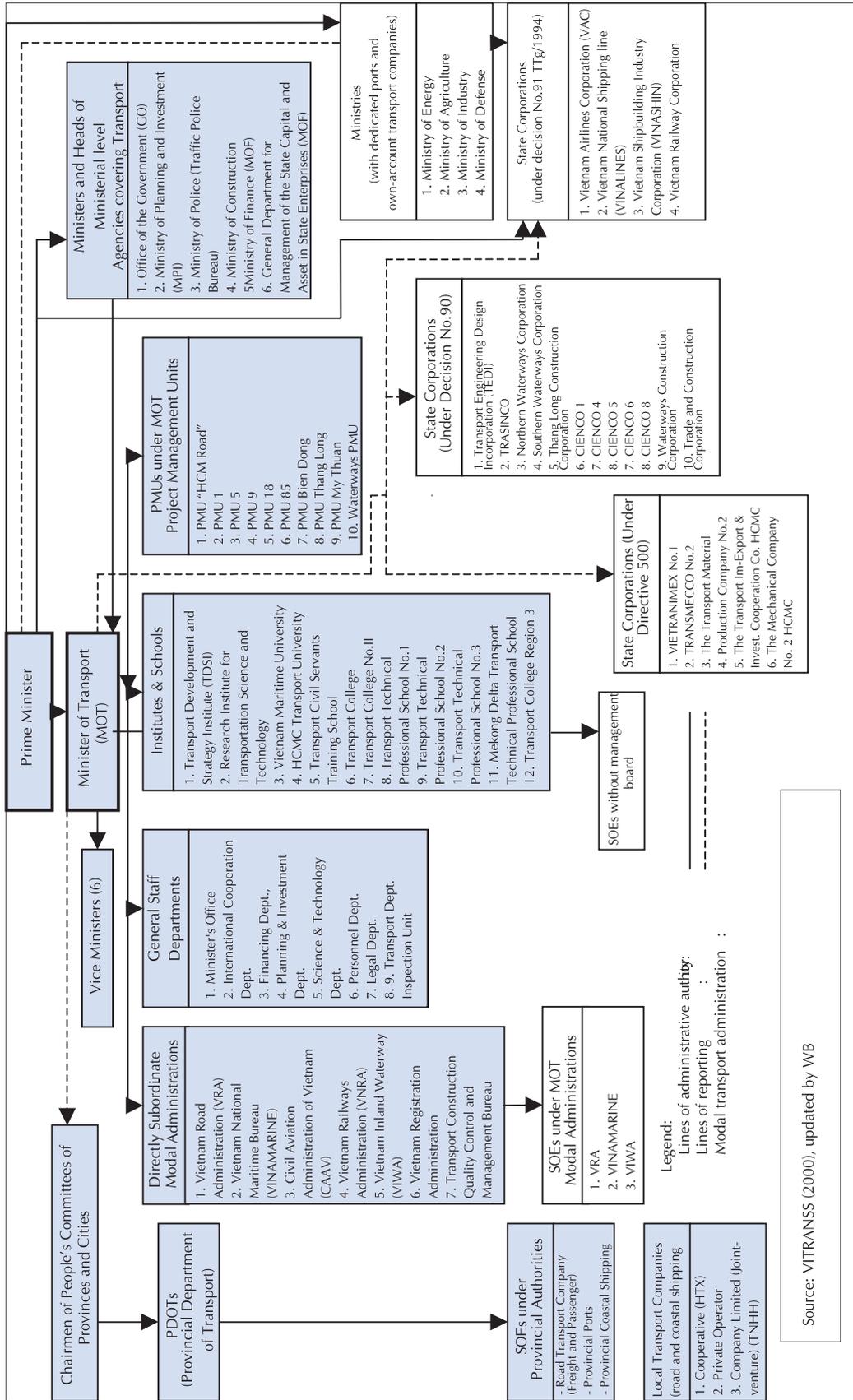
**Table A2:  
Policy, Regulatory and Oversight Responsibilities (Continue)**

<p>Urban Transport: Hanoi HCMC</p>	<p><b>Peoples Committees</b></p> <p><b>Transport and Urban Public Works Services (TUPWS )</b></p> <p><b>Traffic Police under the Public Security Department</b></p> <p><b>Mass Transit Planning Agencies (Hanoi Agency for Transport Planning, HCMC Rail Planning Board)</b></p>	<ul style="list-style-type: none"> <li>• Approve key issues such as fares, opening and closing of routes, schedules and subsidies.</li> <li>• Develops cities' transport strategies</li> <li>• Plans and manages construction.</li> <li>• Maintains urban transport infrastructure</li> <li>• Manages bus transport</li> <li>• Coordinates planning and implementation of traffic management with Police</li> <li>• Enforces traffic management including the operation of traffic signals in coordination with TUPWS</li> <li>• Plans (and finds ways to implement) rail-based mass transit plans.</li> </ul>
<p>Railways</p>	<p><b>Vietnam Railways Administration (VNRA) —under MoT</b></p> <p><b>Vietnam Railway Corporation (VRC)</b></p>	<ul style="list-style-type: none"> <li>• Plans and manages the development of the sub sector</li> <li>• Regulates the sub-sector</li> <li>• Sole provider of rail services</li> <li>• Manages enterprises that carry out construction and maintenance activities, and other commercial activities unrelated to rail</li> </ul>
<p>Inland Waterways</p>	<p><b>Vietnam Inland Waterways Administration (VIWA) —under MoT</b></p> <p><b>PDOTs and Provincial Departments of Agriculture (PDAs)</b></p>	<ul style="list-style-type: none"> <li>• Plans and manages 75% of the network, navigational aides and port facilities</li> <li>• Plans and manages the remainder of the network and port facilities</li> </ul>
<p>Maritime and Ports</p>	<p><b>Vietnam Maritime Administration (VINAMARINE) under MoT</b></p> <p><b>Vietnam National Shipping Lines (Vinalines) —under PM's office</b></p>	<ul style="list-style-type: none"> <li>• Plans the sub sector</li> <li>• Develops and maintains channels and buoys</li> <li>• Manages pilotage and port administration</li> <li>• Regulates port operations</li> <li>• Operates a number of small ports</li> <li>• Plans for developing the shipping industry</li> <li>• Issues registry certificates for sea going vessels over 100 DWT.</li> <li>• Operates the majority of Vietnam's ports</li> <li>• Operates seven shipping companies accounting for the majority of the national fleet</li> </ul>
	<p><b>Vietnam Land Administration (VLA)</b></p> <p><b>Ministry of Natural Resources and the Environment (MNRE)</b></p> <p><b>Ministry of Planning (MPI)</b></p>	<ul style="list-style-type: none"> <li>• Approves Category B and C projects (less than VND 400 billion) before MoT submission to MPI if land falls under its management.</li> <li>• Reviews and approves Environmental Impact Assessments of national transportation projects.</li> <li>• Approves Category B and C projects (less than VND 400 billion) for inclusion in PIP and State Budget.</li> </ul>

**Table A2:  
Policy, Regulatory and Oversight Responsibilities (Continue)**

	<p><b>Ministry of Finance (MoF)</b></p>	<ul style="list-style-type: none"> <li>• Implicitly approves maintenance budgets of MoT’s modal administration (except for VRC) before inclusion in the State Budget.</li> </ul>
	<p><b>Prime Minister’s Office</b></p>	<ul style="list-style-type: none"> <li>• Approves Category A projects (more than VND 400 billion)</li> <li>• Administrative authority over <b>VAC, Vinalines, VRC, Vinashin.</b></li> </ul>
	<p><b>National Assembly</b></p>	<ul style="list-style-type: none"> <li>• Approves projects of national importance such as national security and defense projects.</li> <li>• Implicitly approves all national transport investments included in the annual State Budget.</li> </ul>

**Figure A1: Structure of Government Institutions Related to the Transport Sector**



## *Capital Planning*

*i. National Government Investments* - investments financed and administered by NG

The **Transport Development Strategy Institute (TDSI)** within MoT develops the long term transport sector strategies to support the country's socio economic development strategies and plans. In addition, modal administrations under MoT develop their respective strategies and plans. More specifically, the **Vietnam Road Administration (VRA)**, the **Vietnam Inland Waterway Administration (VIWA)**, the **Vietnam Railway Administration (VNRA)**, the **Vietnam National Maritime Bureau (VINAMARINE)** and the **Civil Aviation Administration of Vietnam (CAAV)** formulate investment plans for roads, inland waterways, seaports and airports respectively and submit them to the **Department of Planning and Investment (DPI)** within MoT. These plans typically identify investments and total costs for the next 5-10 years and are prepared to meet the development goals without much attention to budget constraints. Provincial and city governments participate in the identification and definition of national projects in their provinces.

The long term transport strategies and plans are used as a basis for preparing 5 year investment programs that also include annual projected expenditures and potential sources of financing. These plans are submitted to DPI for inclusion in the PIP. It is not clear however, whether the selection process is based on socio-economic efficiency criteria or not. DPI then collates the different investment lists with the expected sources of financing and MoT submits a comprehensive list to the **Ministry of Planning and Investment (MPI)**.

Similar to the investments listed in long term transport strategies, investments proposed for the PIP do not appear to be constrained by

resource availability. In the PIP, MPI identifies the readily available sources of financing, and proposes other sources to fill the gap. The PIP as a whole does not require approval from the National Assembly but projects in the Program require government approval. Projects of national importance such as national security and defense projects are approved by the **National Assembly**; those costing over VND 400 billion are approved by the Prime Minister; and those costing less than VND 400 billion are approved by MPI. Road projects costing less than VND 400 billion also have to be approved by the Vietnam Land Administration (VLA) before submission by MoT to MPI if the roads fall under VLA's management. Feasibility studies are typically the basis for granting these approvals. The **Ministry of Natural Resources and the Environment (MNRE)** reviews and approves environmental impact assessments for transport projects.

The annual investment program prepared by MoT and submitted to MPI to secure the annual budgetary appropriation does not always include the projects that were listed in the PIP. Some projects are added while others are removed. Typically, projects listed in the PIP require a larger budget than is allocated to MoT in the annual State Budget. It is not clear, however, how the subset of projects that is proposed by MoT and ultimately selected by MPI and MoF for inclusion in the State Budget is determined.

*ii. Local Government Investments* - Investments by provincial, district and commune governments

Planning at the local government level is subject to the dual subordination principle as explained in Chapter 1, Section III. The effectiveness of this subordination varies in the higher and lower level local governments. The **provincial departments of transport (PDoTs)** develop transport strategies, long-term plans, 5-year plans and annual plans for provinces,

districts, and communes and submit them for approval to the **Provincial Peoples' Committees (PPCs)**. The situation is similar for large cities where the **Transport and Urban Public Works Services (TUPWS)** play the same role of PDoTs. In preparing these strategies and plans for transport projects, the provincial and city authorities must consult MoT and obtain their recommendations, but do not have to follow them. In the case of certain urban projects, recommendations must also be sought from the **Ministry of Construction** as well.

District and commune governments are subject to more binding dual subordination. Their transport plans have to be approved by their respective **Peoples' Committees (PCs)** as well as by the PDoTs. PPCs, in turn, incorporate plans from their specialized departments into a general plan that is submitted to MPI. Provinces and cities receive block grants from the State Budget as approved by the National Assembly and have considerable flexibility in how they allocate it.

## **Maintenance**

### ***i. At the National Level***

Modal administrations either attached to MoT or the Prime Minister's office prepare the maintenance plans for national infrastructure. Some of the income generating administrations such as CAAV and Vinalines use their own resources for infrastructure maintenance; while others submit their plans through MoT to MoF for budgetary allocations. Plans are revised

based on actual allocations from MoF.

VRA is responsible for the maintenance of the national road networks. It prepares maintenance plans for half the network using its **Regional Road Management Units (RRMUs)** and delegates the preparation of the other half to designated PDoTs. In 2004, VRA prepared a 10-year strategic plan for the maintenance of the national road network using HDM-4 models. Although the strategic plan was approved by the Prime Minister, it is still not being used as a basis for the preparation of annual maintenance plans.

VRC, the railways operating SOE, under the oversight of the Prime Minister's office, submits its infrastructure maintenance plans directly to MoF and sends MoT a copy for informational purposes. Maintenance of rolling stock is financed directly from VRC's own revenues.

### ***ii. At the Local Level***

PDoTs and **Traffic Inspection and Management Departments** under TUPWS in cities prepare their annual maintenance plans based on network length and condition and the requests received from districts and communes and submit them to the PCs for approval. PCs incorporate the plans (including those of districts and communes) in the provincial recurrent budget and submit it to MoF. Each province receives an aggregate recurrent budget each year from MoF and allocates it among the different uses and to districts and communes at its own discretion.

## Annex 2

### Sector Structure and Ownership<sup>35</sup>

#### *Increasing Demand for Transport<sup>36</sup>*

The demand for transport grew slightly faster than GDP between 1999 and 2005. Annual growth in freight and passenger demand measured in ton/passenger km was 10% over this period (see Table 1). Road remains a dominant mode, accounting for 65% of tons

moved but coastal shipping accounts for 76% of all ton-km due to its dominance in long-distance movements. Reflecting Vietnam's large growth in trade, the annual throughput of sea ports doubled from 56 million tons in 1998 to 114 million tons in 2003. Cargo through southern ports in 2000 exceeded the forecast made two

**Table 1:**  
**Domestic Transportation Volume 1999-2005**

Goods Transport	1999		2000		1999		2000		1999		2000		Increase in ton-km (%)
	1000 tons	%	Mil ton-km	%	1000 tons	%	Mil ton-km	%	1000 tons	%	Mil ton-km	%	
Railways	5,033	3.6	1,397	3.1	8,133	4.2	2,664	4.2	8,838	2.7	2,948	3.6	13
Roads	83,354	60	5,701	13	116,759	61	7,684	12	211,556	65	11,262	13.9	12
Waterways	35,826	26	3,589	8	46,056	24	4,590	7.3	69,933	22	4,785	5.9	5
Coastal ways	15,910	11	34,240	76	21,042	11	47,616	76	33,798	10	61,872	76.3	10
Aviation	42	0	102	0.2	90	0	257	0.4	104	0	229	0.3	14
<b>Total</b>	140,166	100	45,028	100	192,080	100	62,810	100	324,229	100	81,096	100	10

Passenger Transport	1999		2000		1999		2000		1999		2000		Annual Increase in pass-km (%)
	1000 pass.	%	Mil pass-km	%	1000 pass.	%	Mil pass-km	%	1000 pass.	%	Mil pass-km	%	
Railways	9,252	1.4	2,721	9.3	11,564	1.4	4,069	10	12,778	1.0	4,582	8.6	9
Road	554,523	84	19,671	67	727,286	85	25,827	65	1,076,467	85	34,436	64.6	10
Waterways	89,745	14	2,702	9.2	110,255	13	2,781	7	169,336	13	3,420	6.4	4
Coastal ways	800	0.1	84	0.3	870	0.1	70	0.2	2,523	0.2	189	0.4	14
Aviation	2,731	0.4	4,116	14	4,503	0.5	7,021	18	6,339	0.5	10,670	20.0	17
<b>Total</b>	657,050	100	29,293	100	854,477	100	39,767	100	1,267,443	100	53,297	100	10

*Source: Vietnam, Managing Public Expenditure for Poverty Reduction and Growth, Public Expenditure Review and Integrated Fiduciary Assessment, Volume II Sectoral Issues. General Statistic Office*

35. This section provides a summary of the sector structure. For more details see Annex 2.

36. This section is adapted from "Vietnam, Managing Public Expenditure for Poverty Reduction and Growth, Public Expenditure Review and Integrated Fiduciary Assessment", Volume II Sectoral Issues, Page 29.

years earlier in the National Transport Development Strategy (VITRANSS) by 50%.

Rail plays a less significant role, although in terms of ton-km its share increased from 3% to 4%, taking market share from both roads and waterways, and registering the second highest growth rate between 1999 and 2003. Inland waterways have seen their market share fall over the period, partly because of improved

alternatives but also because of lack of investment in that sub-sector. Although starting from a low market share, air transport has also seen its share for both passengers and goods increase significantly between 1999 and 2005. Cargo moved by air seems to be traveling relatively shorter distances as ton-km dropped slightly between 2003 and 2005 despite an increase in total tonnage during that period.

**Table A4:  
Network Size and Ownership Structure for Infrastructure and Service Providers**

Sector	Scale	Construction			Operations
		Management	Implementation	Maintenance	
<b>Roads</b>					
National	17,300 km	MoT's PMUs	SOEs under MoT's Ciencos, provincial SOEs, private sector companies.	Road Management and Maintenance Companies (RMMCs) under VRA's 4 RRMUs	Trucking services provided by SOEs and private sector companies.
Provincial District Commune <b>Total</b>	17,449 km 36,372 km 131,455 km	Provincial PMUs; MoT's PMUs for ODA supported projects.	Provincial/District SOEs and private sector construction companies	Provincial/District SOEs and private sector construction companies. Commune labor used for maintenance of commune roads	
<b>Urban Transport</b>					
	Hanoi: 691 buses, capacity: 40,500 (2004)	PMUs under TUPWS and cities.	SOEs attached to MoT, TUPWS and cities.		Bus services are provided by TRANSECO, a state owned operator under Hanoi's People's Committee, and by private operators in HCMC (the largest two operators are Saigon Bus, an SOE and Saigon Star, a joint venture). HPC is about to introduce private operators.
<b>Railways</b>	2,632 km 300 locos	Railway PMU implements investment projects	SOEs under VRC.	Railway companies under VRC	Vietnam Railways Corporation (VRC) operates two passenger companies and one freight company
<b>Inland Waterways</b>	8,000 km under national mgmt; 1,800 km under local mgmt; 83,000 boats (3.7 mil dwt)	MoT's PMU-W and VIWA's PMU	SOEs attached to MOT and provincial governments	<ul style="list-style-type: none"> <li>VIWA's river stations and port authorities manage maintenance.</li> <li>VIWA's substations carry out maintenance of Navalds.</li> <li>SOEs under take dredging maintenance works</li> </ul>	<ul style="list-style-type: none"> <li>Large barges are owned and operated by both SOEs and the private sector.</li> <li>Small country boats are private sector owned and operated.</li> <li>The majority of ports and landing stages operated by provinces; a few key river ports operated by VIWA.</li> </ul>
<b>Ports and Shipping</b>	80 ports 928 vessels (1.8 mil dwt)	PMUs implement new investment projects	SOEs under the Waterway Construction Corporations and the CIENCOS.	Ports and SOEs under VINALINES..	<ul style="list-style-type: none"> <li>VINALINES operates the major ports (Hai Phong, Danang, Saigon, Can Tho).</li> <li>Shipping and freight forwarding services offered by SOEs, private companies and joint ventures with foreign companies.</li> </ul>

## *Transport Infrastructure and Services*

Transport infrastructure in Vietnam continues to be nearly exclusively provided, owned, financed, built and operated by the public sector, either directly through the government or by way of quasi-independent SOEs. Whether the responsibility for the infrastructure lies with the national or local government typically depends on the level of government that financed and built the infrastructure. Private investment in the sector has been very low accounting for less than 2% of total capital expenditures on transport during the last decade.<sup>37</sup>

Transport services include a mixture of private and public operators depending on the sub sector. All rail services in the country are currently provided under public ownership. Most ports remain vertically integrated public operations in which the public sector owns and operates infrastructure and terminals. Many of the larger trucking and barge enterprises are also state owned. However, for the trucking and barging services there are also large and vibrant private sectors.

Table A4 presents a breakdown of transport assets by level of management, as well as the ownership structure for infrastructure and service providers.

The implementation of national transportation construction projects in all sub-sectors is managed by **Project Management Units (PMUs)**. MoT has ten PMUs; VRC and VRA have four PMUs each; and Vinamarine and VIWA have one each. For local level projects, provincial PMUs-attached to provincial governments oversee implementation. Hanoi and Ho Chi Minh City have three PMUs each. The criteria for awarding projects to different PMUs are not clear.

Construction of national projects is typically carried out by SOEs attached to MOT and provincial governments as well as private sector companies. MOT has over 200 SOEs—most of which are grouped in 12 corporations (including the 5 **Civil Engineering Construction Corporations-CIENCOS**). The corporations act as holding companies only in an administrative sense but do not own their member SOEs. The primary activity of over 100 of these SOEs is construction. While in principle SOEs are independent business entities, in practice they are typically assigned tasks by MOT. Local level projects are carried out by provincial and district SOEs and private companies. All companies have to compete for their assignments under general bidding (or limited bidding) guidelines. It is believed that SOEs are awarded the majority of the tasks and often sub contract to private firms.

Private sector companies compete with **Transport Engineering Companies (TECs)** under TUPWS to undertake transport construction works in large cities.

Small to medium maintenance jobs on national roads are awarded directly to **Regional Road Maintenance Companies (RRMCs)** within VRA's RRMUs. For large maintenance works, RRMCs compete against other SOEs. Local roads are maintained by provincial and district SOEs as well as private companies. Commune labor is used for maintenance of commune roads. TECs undertake maintenance works in cities.

## *Roads*

Table A5 shows the breakdown of the road network in Vietnam. Not uncommonly, local

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37. Contractual commitments between 1994 and 2003 totaled US \$125 million (US \$100 for ports, US \$15 million for an airport and US \$10 million for a toll road). Source: PPI database. These figures record investments promised at the time of contracting.

**Table A5.**  
**Road Length in km by Category and Pavement type**

Category	Paved	Gravel	Earth	Total	% Paved
National	14,441	600	2,254	17,295	83.5
Provincial	11,657	533	9,552	21,762	53.6
District	9,106	2,077	33,830	45,013	20.2
Urban	4,041	68	2,543	6,654	60.7
Commune	2,922	52,446	76,087	131,455	2.2
Total	42,167	55,744	124,268	222,179	19.0

*Source: VRA 2004.*

roads constitute the bulk of the road network accounting for over 90% of its total length.

The number of 4-wheel vehicles grew slightly faster than GDP increasing from 400,000 in 1997 to 600,000 in 2002, or 7.5 vehicles per 1000 population. Trucks make up 30% of the fleet, but 80 % of them is small to medium size and only 10 % are modern articulated trucks (see Table A6). In 2004, about half of the truck fleet was over 10 years old and 14% over 20 years old. Between 2000 and 2003, motorcycles grew rapidly at over 20 % per annum and totaled over 11 million in 2003 or 140 per 1000 people. If motorcycles are included, this gives Vietnam a very high rate of motorization for its income level; a rate that is more than double that of countries at more advanced stages of their economic development such as the Philippines.

VRA has eight freight units and one passenger transport unit providing transport services. These units are only responsible for about 5% of total movement. Primarily they operate routes providing fixed rate, subsidized, services in the mountainous, low income, regions. The private sector supplies over 90% of total service and does not operate on fixed tariff schedules. There are over 1000 private companies involved in road transport, mostly of small and medium size, with less than 50 vehicles. Container transport by road operates without price controls.

VRA was established in 1993 as MOT's subordinate agency responsible for administering the road transport system. The Vietnam Expressway Corporation (VEC) was recently established as a joint-stock company

**Table A6.**  
**Vehicle Fleet**

Cars and Utility	285,000	303,627	346,218	
Truck	130,800	144,526	162,552	
Articulated truck	12,500	13,317	15,185	675,000
Bus	65,000	69,250	78,962	
Sub total	500,000	532,681	607,400	675,000
Motorcycles	6,478,000	8,395,835	10,273,000	11,379,000

*Source:*

under the management of MOT and has been mandated to develop, invest in, operate and maintain the expressway system in Vietnam. The major state holders include the State (VEC receives funds from the State budget) and other SOEs such as Cienco 1, Cienco 5, Cienco 8, Vietnam Insurance (Bảo Việt), and Vinashin. The corporation will also raise capital from the sale of toll collection rights at two stations on National Highway 1A.

Vietnam has recently made a commitment to the WTO that, upon accession, foreign investors will be allowed to provide passenger and freight transport services through JVs. The foreign partner's contribution will not exceed 49% of total legal capital.

### **Rail**

The network consists of 7 lines with a total length of 2,632 km. All lines are single track, mostly meter gauge, with a few standard gauge and double gauge towards the Chinese border. There are over 1,800 bridges (57,044m) and 39 tunnels (11,513 m) and 281 stations.

VRC is the sole supplier of rail services in Vietnam. Following corporatisation, VRC's internal business has been restructured into four main business groups: two passenger train operating entities (North and South), a freight train operating company and a looser grouping of regional infrastructure administrations. The train operating entities are quasi-independent management and accounting entities. VNRA remains responsible for planning development of the sector, for new construction and for securing resources for maintenance. VRC pays 10% of its gross revenues as a track access charge. These funds are generally used toward infrastructure maintenance.

### **Maritime**

Vietnam has over 80 sea ports, totaling 22,000 m of wharfs with 2.2 million sq m of quays and 1

million sq m of docks. The large ports in Vietnam have traditionally been developed by the government through Vinamarine and turned over to Vinalines for operation. Local governments manage about 20 ports, and several national- or local-level SOEs operate specialized ports. The main ports are Hai Phong in the north and Saigon in the south, but both are estuarine ports, distant respectively 30 and 90 km from the sea, i.e. with access limited to smaller ships. The annual throughput of the ports has increased rapidly, almost doubling over the last five years, from 56 million tons in 1998 to 114 million tons in 2003. Ports in the southern Focal Economic Zone still account for two thirds of total throughput.

There has been some foreign investment in the port sector. For example, the VICT container terminal in HCMC is 90% foreign owned, the Interflour grain port (with capacity to handle Panamax vessels) in Vung Tau is a 100% foreign owned.

The fleet of vessels has also expanded from a total number of 679 and capacity of 1.6 million Dead Weight Tons (DWT) in 2000 to 928 vessels and capacity of 1.8 million DWT in 2003; an annual increase of 12% and 4% in vessel number and capacity respectively.

Although port operations are divided among five separate companies, they are all part of Vinalines, which also operates seven shipping companies that account for the majority of the national fleet. Port charges pertaining to vessels are set by the MoF and most of them do not vary from one region or port to another. Cargo handling charges are set by port operators, service providers or by negotiation.

While foreign ownership of ports is possible, there are restrictions on the provision of port and shipping services by foreign enterprises. With the exception of ship agency services which are not open to any degree of foreign participation, other services can be offered by

joint ventures provided the foreign entities' share in the enterprise does not exceed 49%.

### ***Logistics and Multi modal Transport***

The transport logistics business tends to be a private, market-led activity and Vietnam has a wide range of logistics providers. These include freight forwarders, vessel charters, warehouse and ICD operators, shipping agents and non vessel-operating common carriers (NVOCCs), customs clearance agents, trucking companies, barge operators, stevedoring companies, etc. The SOEs involved in transport, e.g. Vinatrans and Viefracht, also provide forwarding and storage services through their subsidiaries. Foreign companies are allowed to provide logistics services only through joint ventures. Many of the major logistics companies e.g. Maersk, APL, TNT, Khune and Nagel, etc. offer individual services but not an integrated logistics service.

### ***Inland Waterways***

Vietnam has 41,000 km of natural waterways, of which 8,000 km are used commercially. Of these, VIWA manages about 6000 km as well as the main river ports; local governments manage the balance of the commercial waterways. River boats and barges have rapidly developed. In 1999, there were 63,600 units with a capacity of 1.7 million DWT and 197,000 passenger seats. In 2003 this had increased to 83,000 boats with a capacity of 3.7 million DWT and 280,000 passenger seats. In addition there are tens of thousands of small "country" boats and ferry boats.

Despite limited investment, the waterways remain attractive for the transport of coal, rice, sand, stone, gravel, and other usually high weight low value goods; and livelihoods and personal transport depend heavily and successfully on waterway transport in the delta regions of the Mekong and Red River.

The inland waterway system is managed by nine state waterway management companies; and river ports are managed by three port authorities. Inland waterway transport services are provided by SOEs operating under two state corporations attached to MoT (Northern Waterway Transport Corporation (NWTC) and Southern Waterway Transport Corporation (SWTC)); specialized state-owned transport companies under other ministries carrying materials to cement plants, paper mills and construction material enterprises; and private for-hire operators. Private operators have expanded their market share significantly in recent years. Foreign companies can provide transport services on the waterways through joint ventures in which the foreigner's share does not exceed 49%. Freight and passenger transport rates are freely determined by negotiation.

### ***Urban Transport***

Motorcycles are the primary mode of transport in both Ha Noi and Ho Chi Minh City accounting for 60% to 65% of vehicular trips, with bicycles accounting for another 25%. Automobiles account for less than 5% of trips in both cities and ownership is relatively low though growing rapidly. In HCMC, the number of registered automobiles increased from 137,000 in 2001 to about 245,000 in 2004. Buses account for about 7% of vehicular trips in Hanoi.

At present, bus services in Hanoi are provided by Transerco, a state owned operator attached to the People's Committee of Hanoi, that manages several operating companies; and all buses providing public transport services are owned by the city government. Revenues accrue to TRAMOC and all routes are operated under negotiated gross cost contracts between TRAMOC and TRANSERCO with back to back contracts between TRANSERCO and the operating companies. Decision 71/2004/QD-UB issued by the city of Hanoi, encourages the

participation of the private sector in the provision of bus services and two private companies have been recently selected to operate six routes but contracts have not been finalized yet.

In HCMC, bus services are offered by over 30 operators, the majority of which are small

privately owned cooperatives. Route planning is fragmented and services tend to be unprofitable and the city government is in the process of consolidating operators. The City is also working with Russian, Japanese and German investors on plans to construct a number of urban rail lines.

## Annex 3.

**Table A7:**  
**Capital and Recurrent Transport Expenditures**

(Billion of real 1994 Vietnamese Dong -- unless otherwise indicated)	1994	1995	1996	1997	1998	1999	2000	2001	2002	Avg
Central Transport Expenditures	2,163	2,857	2,828	4,583	5,047	5,679	6,005	8,325	9,318	5,200
- Capital Expenditures	1,340	1,952	1,895	3,633	4,156	4,847	5,151	7,234	8,213	4,269
- Recurrent Expenditures	823	905	933	950	892	831	854	1,092	1,105	932
Local Government Expenditures	1,395	N.A	N.A	2,143	2,314	3,314	3,564	6,034	7,192	3,708
- Capital Expenditures	1,198	N.A	N.A	1,918	2,013	3,038	3,187	5,600	6,685	3,377
- Recurrent Expenditures	197	N.A	N.A	225	301	276	377	434	507	331
<b>Percentage Growth</b>										
		1995	1996	1997	1998	1999	2000	2001	2002	Avg
Central Transport Expenditures		32%	-1%	62%	10%	13%	6%	39%	12%	20%
- Capital Expenditures		46%	-3%	92%	14%	17%	6%	40%	14%	25%
- Recurrent Expenditures		10%	3%	2%	-6%	-7%	3%	28%	1%	4%
		<b>94-97 (annualized)</b>								
Local Government Expenditures		15%			8%	43%	8%	69%	19%	23%
- Capital Expenditures		17%			5%	51%	5%	76%	19%	24%
- Recurrent Expenditures		5%			34%	-8%	36%	15%	17%	13%
<b>Percent of Respective Transport Expenditures</b>										
	1994	1995	1996	1997	1998	1999	2000	2001	2002	Avg
Central Government										
- Capital Expenditures	62%	68%	67%	79%	82%	85%	86%	87%	88%	78%
- Recurrent Expenditures	38%	32%	33%	21%	18%	15%	14%	13%	12%	22%
Local Government										
- Capital Expenditures	86%	N.A	N.A	89%	87%	92%	89%	93%	93%	90%
- Recurrent Expenditures	14%	N.A	N.A	11%	13%	8%	11%	7%	7%	10%

**Sources:** 94-98 data from "Vietnam, Managing Public Resources Better, Public Expenditures Review 2000"; other central expenditure data from MoT; other local expenditure data from MoF;