Japan International Cooperation Agency (JICA)
Ministry of Transport, Socialist Republic of Vietnam (MOT)
Transport Development and Strategy Institute (TDSI)

THE STUDY ON THE
NATIONAL TRANSPORT DEVELOPMENT STRATEGY
IN THE SOCIALIST REPUBLIC OF VIETNAM
(VITRANSS)

Technical Report No. 4
TRANSPORT SECTOR INSTITUTIONS

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PREFACE

During the period of the Study on the National Transport Development Strategy in Vietnam (VITRANSS), various technical papers have been prepared by different Study Team members in various occasions to facilitate the discussions with counterpart team, concerning subsector agencies and to document major findings and outputs produced in the process of the Study. These papers have been organized into a series of technical reports (See Table A below) which intend to provide more detailed background information for descriptions and discussions made on key study components and issues. These technical reports are working documents of the Study which, however, will be useful for further reference, by the counterpart team and related subsector agencies.

Table A
List of Technical Reports

No. 1	Transport Surveys and Database
No. 2	Main Commodities Analysis and Freight Transport
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Glossary

ADB	Asian Development Bank
ASEAN	Association of Southeast Asian Nations
BOT	Build-Operate-Transfer
CAAV	Civil Aviation Administration of Vietnam
CIDA	Canadian International Development Assistance
CIENCO	Civil Engineering Construction Cooperation
CSMP	Coastal Shipping Master Plan
ESCAP	Economic and Social Commission for Asia and the Pacific
GOT	General Office of Tax
GPC	Government Pricing Committee
GRT	Gross Registered Tonnes
HCMC	Ho Chi Minh City
INLACO	A Vietnamese shipping company
JICA	Japan International Cooperation Agency
MOF	Ministry of Finance
MOT	Ministry of Transport
MOU	Memorandum of Understanding
MPI	Ministry of Planning and Investment
NOWATRANCO	An Inland water transport corporation
NTSC	National Traffic Safety Committee
ODA	Overseas Development Assistance
PMU	Project Implementation Units
PTA	Provincial Transport Authority
PWTS	Public Works and Transport Services
RRMU	Regional Road Management Units
SDR	Special Drawing Rights
SFICO	State Financial Investment Company
SOE	State-owned Enterprise
SOWATRANCO	An inland water transport corporation
TEDI	Transport Engineering Development Institute
UNCTAD	United Nations Commission for Trade and Development
UNDP	United Nations Development Program
USD	United States Dollar (equal to VND 14,000)
VAC	Vietnam Airlines Corporation
VFFA	Vietnam Freight Forwarders Association
VIETRANIMEX	A Vietnamese Shipping Company
VINALINES	Vietnam National Shipping Lines
VINAMARINE	Vietnam National Marine Bureau
VINASHIN	Vietnam Shipbuilding Industry Corporation
VINASHIP	A Vietnamese Shipping Company
VISBY	An international trade agreement
VITRANSCHART	A Vietnamese Shipping Company
VIWA	Vietnam Inland Waterway Association
VND	Vietnam Dong
VOSCO	Vietnam Overseas Shipping Company
VRA	Vietnam Road Association
VR	Vietnam Railway

1 INTRODUCTION

1.1 Overall Organization of Transport Sector

Main Organizational Features

The government's reform program has required major changes to the role of government in the transport sector. To perform the new state management functions required for the market economy requires a considerable institutional strengthening effort over many years. On the other hand, there is a need to reform state-owned transport businesses through increased commercialization and, in many cases, equitization.

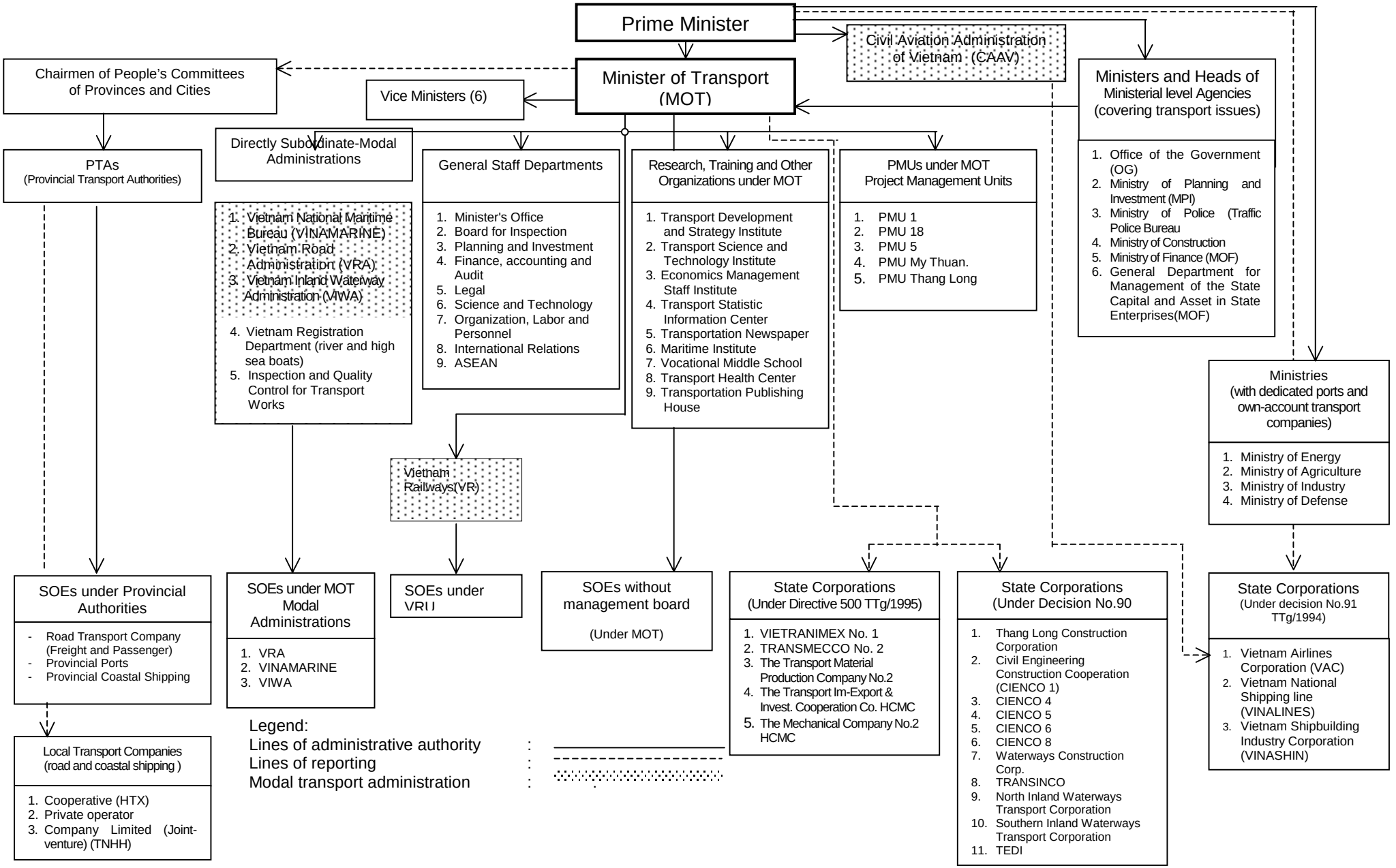
The need for significant change in the regulatory and institutional framework of Vietnam's transport sector has been widely recognized within the Vietnamese government, which attaches great importance to tackling the institutional issues raised by trying to implement the proposed VITRANSS Master Plan. Consequently prolonged debate has already taken place about the nature and timing of the changes needed, and the means by which such changes can be implemented.

The structure of government in relation to transport activities is shown in Figure 1.1.1. The National Assembly meets twice a year and has a Standing Committee that presides between these two sessions. The Assembly approves the national plan and the state budget as well as major economic policies after all these have been reviewed by the Government Office. The Prime Minister (PM) is the real manager of the nation's economic and administrative system. The PM issues decisions or directives and decrees on behalf of the Government. The power of the PM over ministries, policies, plans and budgets makes him/her the key person in terms of substance and rate of change.

The Minister of Planning and Investment (MPI) reports to the Prime Minister and submits to him major policy decisions, transport plans and large projects for approval (once these have been proposed by other ministries). MPI has three small transport -related units:

(a) an Infrastructure Department which reviews Ministry of Transport (MOT) proposals;
(b) a group in the Department of Synthesis, which reviews the transport sector in terms of broad inter-sectoral priorities; and
(c) an Infrastructure and Urban Division in the Development Strategy Institute (DSI), which provides advice for a 10 to 20 year planning period.

Figure 1.1.1
Structure of Government Institutions Related to the Transport Sector (August, 1999)



Other ministries with significant interests in transport are:

a) the Ministry of Police with the traffic Police Bureau for road safety, issuing vehicle registration numbers and number plates;
b) the Ministry of Finance and the General Department for Management of the State Capital and Assets in State Enterprises is the specialized organization established in January 1995 within the Ministry of Finance to improve supervision and management of SOEs.
c) the Ministry of Construction which issues construction standards
d) the Ministries of Industry, Agriculture and Rural Development, and Defense which own and operate dedicated ports (and one public port) and own-account trucking and coastal/river fleets.

Provincial Transport Authorities (PTAs) are established in each province under the hierarchical and functional responsibility of the Provincial People's Committees (PPCs). The PPCs, assisted by the Provincial Planning and Investment Committee, have substantial powers regarding all transport issues within the province and in particular the development and management of the provincial and district roads.

The PTAs have a dual reporting function: (i) they report to the MOT for technical specifications, legal transport standards, and transport planning matters, (ii) they report to the PPCs for the management and rehabilitation of provincial roads which are funded by the provinces. They receive funding for provincial and district transport infrastructure construction and maintenance direct from the government rather than from MOT, making it difficult for MOT to fulfil its overall transport infrastructure planning responsibilities.

The PTAs have both regulatory/oversight functions and commercial functions. Regulatory functions include

- implementing/coordinating central government plans
- driver testing and licensing, transport licensing and mandatory road vehicle inspections and registration on behalf of MOT

Commercial activities vary between provinces but may include

- constructing and administering provincial and district roads and provincial ports (both general cargo and specialized ports for petroleum, salt, cement etc.)
- maintenance of designated national roads under VRA responsibility
- operating provincial coastal shipping, inland water transport and road transport companies (freight and passengers).

There is no consistent organizational setup for PTAs that applies to all provinces and this sometimes causes confusion about responsibilities.

Table 1.1.1 summarizes the allocation of government responsibilities in the transport sector between the Ministry of Transport, the specialized management departments (or subsector agencies) under the MOT or the Government (Prime Minister's Office) and the provinces. Major organizational issues include:

(a) the involvement of MOT in infrastructure management, through the five PMUs, rather than through the specialized management departments
(b) too many reporting lines to the Minister of Transport Office
(c) lack of oversight by MOT for aviation matters
(d) lack of clear role for research institutes (distinguishing between acting as MOT representative and acting as an independent consultancy)
(e) duplicated functions within the MOT
(f) the lack of a proper legal status for VR
(g) weak central direction of provincial transport infrastructure management
(h) bureaucratic procedures that slow up decision-making, such as over project planning and implementation
(i) continuing lack of clear separation between commercial and oversight functions

Furthermore, in MOT and its subordinate agencies there is a lack of suitably experienced and qualified staff (especially at provincial level). These issues are further elaborated below.

The Organization of MOT

The main legal provisions establishing organisations under MOT are shown in Table 1.1.2. As defined in 1994, the Ministry of Transport (MOT) had “tasks, powers and state management responsibility over land roads, railways, river, and maritime transport”. In 1995 it lost responsibility for aviation.

The MOT's main functions are: (i) to elaborate general planning and master plan on transport development throughout the country, (ii) to draft legislation (laws and ordinances) and submit them for promulgation by the Government or by the Ministry itself, (iii) to issue, according to the Government stipulations, national technical standards for construction, transport means, equipment and spare parts, (iv) to examine and to inspect the implementation of laws, policies and regulations.

Table 1.1.1
Responsibilities in the Transport Sector

Organization	Operational functions		Policy & Regulatory Functions			
	Planning & Investment	Mngmt of Infrastr. & Operations	Draft legislation & regulations	Issuance of - technical standards - transport license	Traffic order & safety	Negotiation of intern'l agreement
1.1. Ministry of Transport (MOT)						
• State Management Responsibility	X	X	X	X	X	X
• Vietnam Railways (VR)		X	X		X	X
1.2. Specialized Management Department under the MOT						
• Vietnam Road Authority (VRA)	X	X	X	X	X	X
• Vietnam National Maritime Bureau (VINAMARINE)	X	X	X	X	X	X
• Vietnam Inland Waterway Administration (VIWA)	X	X	X	X	X	X
2. Agencies attached to the Government (Prime Minister Office)						
• Civil Aviation Administration of Vietnam (CAAV)	X		X	X	X	X
3. Agencies under the Provincial People's Committees (PPCs)						
• PTAs	X	X		X		

NOTE (1) Not including agencies at district level.

Table 1.1.2
Legal Basis for Organization, Function, Powers and Responsibilities in the Transport Sector

Regulations	Legal Features
No. 07-CP/1993 – January 30, 1993	Vietnam Roads Administration (VRA): government authority to manage the road subsector.
No. 08-CP/1993 – January 30, 1993	Inland Waterway Bureau (now the Vietnam Inland Waterway Administration): governmental authority for managing transport along rivers and lakes, and through river ports.
No. 31-TTg/1993 - February 2, 1993	Vietnam National Maritime Bureau (VINAMARINE): the regulatory body in the maritime sector, maritime ports and coastal shipping.
No. 22-CP/1994 – March 22, 1994	Ministry of Transport (MOT): "State management responsibility" over "land roads, railways, river, maritime and civil air communication and transport".
n/a	Vietnam Railways (VR)
No. 32-CP/1995 – May 22, 1995 (i) No. 68-CP/1995 – October 25, 1995 (ii)	Vietnam Civil Aviation Administration (CAAV): responsible for state management of aviation subsector - transferred from the Ministry of Transport to the direct control of the Government;
No. 79-CP/1995 – November 22, 1995	Vietnam National Shipping Lines (VINALINES): building and developing the maritime industry (sea transport, maritime brokerage...)
No. 4-CP/1996 – January 27, 1996	Vietnam Airlines Corporation (VAC)with the Vietnam National Air Services (Vietnam Airlines) as the core.
No. 33-CP/1996 – May 27, 1996	Vietnam Shipbuilding Industry Corporation (VINASHIN): building new ships, repairing ships, other floating equipment and facilities, oil drilling rigs.

NOTES:

(1) Government Decrees (CP), Government Decisions (TTg), Ministerial Decisions (MOT – QD/TCCB)

(2) Provisional Regulations have been issued on the reorganization of VRA and VIWA (formerly Inland Waterway Board), as follows

VRA : Government Decision No 3525/QD-BGTVT/1998 dated December 23,1998 to issue provisional regulation on the organization and operations of the Vietnam Road Administration.

VIWA: Government Decision No 3619/QD-BGTVT/1998 dated December 31,1998 to issue provisional regulation on the organization and operations of the Vietnam Inland Waterways Administration.

Up until recently the MOT has been headed by six Vice-Ministers, responsible for (i) Transportation and Traffic Safety (ii) International Relations and Internationally-funded projects (ODA) (iii) Science, Technology and Mechanics (iv) Construction (domestically-funded projects) (v) Transport and Institutional Issues (vi) Southern Region of Vietnam. However the number has been reduced during the VITRANSS study (the vice minister for Transport and Safety Issues has been appointed as General Director of VR and his ministerial duties distributed among the remaining ministers). This has weakened the MOT's capacity for implementing institutional reforms, the equitization program and for managing new rural transport development projects. The MOT has nine general staff departments and nine research, training and other organizations responsible to it.

Within MOT there are 209 staff, including 180 specialists. The largest general staff departments are the Minister's office (77) and Planning and Investment (32). Since the 1980's the role of MOT has been fundamentally transformed from direct management of many aspects of the transport sector, to responsibility for oversight and infrastructure provision. Many responsibilities have been delegated to subsector agencies and new functions for each of its general staff departments have been defined.

Despite these reforms organizational problems remain. There is not yet a clear and arm's length relationship between the MOT and the research institutes under the ministry. For example, the Transport Development and Strategy Institute can variously act as either an arm of the ministry or as an independent consultancy, and the Center for Transport Statistics is often considered to be part of MOT with similar status to the General Staff Departments. Furthermore it is difficult to separate clearly the responsibilities of the ASEAN Department and the International Department.

Sector Management Capacity

In terms of functional definitions, the MOT institutional reforms have not yet been translated into the specific means by which it should manage the transport sector under market conditions. Despite considerable progress being made in implementing modern technical standards in the transport sector, guidance documents and procedures have to be further developed to enable MOT to monitor implementation of these standards.

The information required by MOT for policy-making and planning functions has not yet been defined, for example, for assessing:

- different development options for infrastructure (trade-offs between developing different modes along particular corridors),
- scope for coordinating developments of different modes and improving linkages,
- capacity utilisation and condition of infrastructure,
- competitive conditions within and between modes of transport,

- effectiveness of laws and regulations,
- levels of enforcement, and
- degree of achievement of policy objectives and reform programs.

In many cases such information cannot be obtained until key guidance documents have been implemented. For example, collecting traffic, operational and financial data is difficult because of the lack of a legal basis for collecting information from operators and from other agencies such as the Ministry of Police (who keep vehicle registration records). Even the most basic of transport statistics is lacking at MOT level. Infrastructure inventory information is lacking because management information systems have not yet been established at subsector and provincial levels, and the Planning and Investment Department has not yet developed the capacity to evaluate alternative investment strategies within the transport sector and relate these to overall transport policies (although this partly reflects the continuing responsibility of MPI for project evaluation and prioritization across all sectors).

Policy implementation is apparently constrained by inadequately detailed guidance documents at MOT level. For example there is currently uncertainty over the division of responsibility between MOT and VRA over legal matters. This would delay development of the legal framework, especially if MOT policies are not clearly stated.

Project implementation encounters bureaucratic obstacles at various stages from project preparation through to completion because of

- over-centralized decision-making processes, often involving several ministries, with frequent involvement by MOT in micromanagement activities of the PMUs,
- the sheer volume of administrative work involved,
- lack of experience and training of some administrators,
- in the case of internationally-funded projects, insufficient English ability of administrators, which causes misunderstandings,
- lack of adequate guidance documents,
- most government agencies lacking a service orientation, making it difficult to obtain planning data.

From the perspective of MOT, project implementation can be streamlined through achieving better coordination between subsector agencies - clearer guidance to implementing agencies about how they relate to agencies under other ministries. To many others, the MOT and its relationship with other ministries such as MPI, the Ministry of Finance and the Prime Minister's Office, is a major cause of delay, and that a greater decentralization of decision-making is required.

The lack of staff with the required experience and qualifications (experience of modern planning and regulatory techniques is a major obstacle to institutional strengthening. A number of studies in the last few years have recommended institutional strengthening and training programs for MOT and its agencies (for

example the MOT Highway Sector Retraining and Improvement Programmes, Final Report, 1996 by Carl Bro International, and the Institute for Transport Administration and Management Cadres (ITAMC) - Development Strategy and Action Plan Report, 1995).

The need for retraining at all levels of the transport sector was found to be substantial. Within the MOT itself, the changing role of the ministry requires retraining of existing staff based on a comprehensive analysis of the future staffing needs. In particular, this includes training for the following senior staff:

- policy makers, managers and administrators (to enable them to operate effectively with new types of information presented to them, to be familiar with market regulation concepts and new technical standards, methods, techniques and technologies, and to have an adequate grasp of English)
- transport planners, economists, engineers (to enable them to use modern planning tools and database management techniques, to undertake feasibility analyses, to use economic evaluation techniques, to use project planning methods of design, specifications, tender and contract documentation, quality control etc., and to become competent in use of computers and the English language).

The need for sector management training extends far beyond the MOT itself and covers senior staff in the subsector agencies, in the Provincial/District Transport Administrations and in the transport institutes. The MOT Labor and Personnel Department has no computerized personnel register and no plan for human resource development.

1.2 Organization of Transport Subsectors

The main sector management functions are performed by means of three specialized management departments or subsector agencies which control particular modes of transport:

- Vietnam Road Administration (VRA) for road and road transport;
- Vietnam National Maritime Bureau (VINAMARINE) for maritime port and maritime transport, including coastal shipping;
- Vietnam Inland Waterways Administration (VIWA) for river ports and river transport;

The management department responsible for aviation, the Civil Aviation Administration of Vietnam (CAAV), reports now to the Office of the Prime Minister. In addition the Vietnam Railways (VR) is the former Railway General Office (then Vietnam Railway Union) under the MOT, responsible for railway infrastructure and services. It has never been given a proper legal status as a commercial enterprise.

Management of large construction projects is entrusted not to the subsector agencies

but to five Project Management Units (PMUs) under the MOT. This means that the subsector agencies cannot wholly fulfil their responsibilities in state management of infrastructure.

The MOT is currently embarking on a review of transport sector organization and has issued MOT Directive No. 356/CT-BGTVT/1998 dated November 3, 1998 on strengthening administrative reform in the transport sector. One aim of the review is to reduce staff numbers by 15%, whilst simultaneously increasing the productivity and salaries of the remaining staff. It is anticipated that one result will be a revision to Decree No. 22 which defines the organization of MOT.

VRA

In theory the Vietnam Road Administration (VRA) manages the national road network while the provinces and districts are in charge of the provincial and district roads. Its main functions are: (i) to draft bill, policies, rules, standards codes and regulations for the State management of the road transport system, (ii) to elaborate national road strategy, long-term, five year and yearly plans on the development of the road network, (iii) to directly manage the necessary ongoing repair, construction, and maintenance work required and to set up the signals of the road in order to ensure safety, (iv) to establish and operate the road traffic management system with oversight of policy and technical standards on road safety, (v) to introduce regulations for classification, loading capacity, as well as the regulation of import and export of vehicles; and to issue all types of inter-provincial road transport licenses for passenger and goods transportation as well as cross-border road permits; to organize the examination and to issue the driving licenses in the whole country, (vi) to work out the regimes of collection of bridge and road tolls, charges on ferries, fees for the issue of certificate and documents on road transport and to organize and direct the collection of fees and road and other revenues; to work out the bracket of transport rates, charges of loading and unloading and road transport services, (vii) to negotiate and work out documents on cooperative relations with other countries in road communications and transport services; to manage internationally-funded projects for the road communications and transport services.

Under VRA are four Regional Road Management Units (RRMUs), controlling 48 road management and repair SOEs, which have responsibility for medium repair (generally the periodic maintenance) and routine maintenance works. There are also four Material and Equipment Supply Enterprises and four ferry enterprises under VRA, and Transport Consulting Engineering Companies (TCEC) which can be called upon to provide design and supervision services.

VRA still retains several SOEs engaged in transport businesses - nine in road passenger and freight services and four in transport construction consultancy.

In practice VRA has almost no planning role and, since it does not implement major projects, it is far from being the state administrator of road transport.

VINAMARINE

The Vietnam National Maritime Bureau (VINAMARINE) responsibilities include (i) developing plans for the maritime industry, (ii) acting as owner of state maritime infrastructure, (iii) administering sea-going and coastal shipping vessels and operations, sea ports and navigational aids, (iv) issuing licenses, managing infrastructure in accordance with government instructions and providing search and rescue services, (v) monitoring and enforcement of maritime safety, environmental pollution, and maritime sanitation.

The regulatory functions of VINAMARINE are carried out through its head office and three branch offices (Haiphong, Danang, HCMC), 17 Port Authorities which are delegated to monitor enforcement of maritime rules and regulations, including those covering maritime safety, environmental pollution, and maritime sanitation. Other agencies are under the control of VINAMARINE such as the Vietnam Maritime Safety Agency (VMS).

VINAMARINE still keeps the control of operations management in six ports (Quang Ninh, Nghe Tinh, Danang, Qui Nhon, Nha Trang and Can Tho).

VIWA

The Vietnam Inland Waterway Administration (VIWA) is the agency responsible for provision of infrastructure along rivers, lakes and river ports and in particular Aids to Navigation (ATN) and dredging along the rivers (6,787 km of which are classified as navigable). It must be noted, however, that the Vietnam Maritime Safety (VMS) Agency, under the control of VINAMARINE, manages the Aids to Navigation (ATN) and dredging along the main rivers serving inland sea ports.

VIWA still manages four inland waterways transport and river ports SOEs. It is expected that these functions will be divested eventually to allow the VIWA to concentrate on its regulatory functions.

CAAV

The Vietnam Civil Aviation Administration (CAAV) is an agency attached to the Government, having the function of state management over the civil aviation in the whole country. Its main function are: (i) drafting laws, ordinances, strategies, programs, plans and policies on the development of the civil aviation services, (ii) proposing the establishment and operations of air routes, (iii) the accession to and signing of international treaties of aviation, (iv) issuing procedures and rules on

technical and professional processes and civil aviation safety, (v) organizing and managing the operations of civil aviation routes, flight information and flight control regions (vi) ensuring the security and safety of aviation services, special flights and exclusive flights, (vii) managing the air transport services provided by domestic air transport business as well as the activities of foreign airlines operating on Vietnamese territory, (viii) managing the registration of civil aircraft, the import and export of aircraft, equipment and materials in service of civil aviation; managing the repairs and maintenance of aircraft, aircraft engines, (ix) issuing, suspending, extending, revising and withdrawing certificates, licenses and permits relating to the civil aviation activity in accordance with the Government's stipulations.

The Regional Airport Authority (RAA) under the Civil Aviation Administration of Vietnam, is a non-business unit which performs the tasks of specialized State management of civil aviation at airports and civil airfields. It also performs the commercial function of organizing the management of the airport and airfield exploitation in order to ensure the supply of aviation services and public services. The RAA is organized into three regions, northern, central and southern.

Vietnam Railways (VR)

The Vietnam Railways (VR) comprises a Headquarter Block together with four specialized blocks, namely Industrial (including workshop and manufacturing facilities), Construction (covering civil engineering and track maintenance activities), Transport (covering traffic and operations) and Hotel-Tourism-Materials. The Transport block comprises three Regional Unions (covering the north, central, and south of Vietnam) which are delegated to operate services as planned by HQ.

1.3 Organization of State Owned Transport Enterprises

Introduction

In 1994 many commercial functions were removed from MOT and placed in three State Corporations under the Prime Ministers' Office:

- Vietnam National Shipping Lines (VINALINES);
- Vietnam Shipbuilding Industry Corporation (VINASHIN);
- Vietnam Airlines Corporation (VAC).

This restructuring was carried out under two decisions of government:

(a) one on the re-structuring of state owned enterprises in order to increase their operational efficiency as well as to strengthen state management (Government Decisions no 90-TTg/1994, dated March 7, 1994); and

(b) a second one aiming at establishing business corporation on an experimental basis in order to eliminate the governing function at the ministerial and administrative level (Government decision no 91-TTg/1994 on "Pilot Work to

Establish Enterprise Groupings", also dated March 7, 1994).

Corporations such as the three listed above, formed under Decision 91, had to have at least seven subsidiaries and a total legal capital of at least one thousand (1000) billion VND ($77 million). The board of management and the general director are "appointed, dismissed, commended, or disciplined" by the Prime Minister. The scope of these corporations is:

(a) VINALINES: to carry out business in sea transport, port exploitation, sea ship repair, and maritime brokerage, and to develop the maritime industry in line with the economic development of the state.
(b) VINASHIN: to conduct business in building new ships, repairing ships and other floating equipment and facilities, oil drilling rigs.
(c) VAC: to conduct the following tasks: (i) carrying out business and services in air transport for passengers and cargo at home and abroad in accordance with the state overall planning, plans and policies on the development of civil aviation, (ii) investing directly or indirectly in domestic and foreign projects; buying part or the whole of another business as stipulated by law.

These large corporations act as conglomerates which guide state policy in their respective part of the transport industry. Their statutes proceed from the Law on State Enterprises which was passed by the National Assembly on April 20, 1995 “with a view to promoting the leading role of the State-owned economy in the market mechanism”. They are guided by the Minister of Transport and the subsector agencies who appoint the Managing Board and directors, and give instructions on policy. Major state investments are also made through these corporations.

Corporations formed under the Decision 90 had to have at least five subsidiaries and a total legal capital of at least five hundred (500) billion VND (around $ 38 million for a rate of exchange of 13,000 VND for $1). Their board of management and the general director are appointed and dismissed by the Ministry of Transport. A total of 11 transport corporations were established under this Decision, as shown in Figure 1.1.1. They include most of the SOEs involved in the transport construction business. These corporations tend to be regionally-located, compete with each other for construction contracts (often through joint ventures with other construction organisations) and award work to their member SOEs.

Following the creation of these corporations, a further group of five corporations was established in the next year.

Following the establishment of these corporations, several transport SOEs remained attached to MOT, the subsector agencies or the provincial governments, as indicated in Figure 1.1.1.

The Role and Legal Basis for SOEs in the Transport Sector

The SOEs still dominate the transport sector in the construction business. The SOEs also dominate in transport operations, except in road and river transport where cooperatives and private operators represent the majority of the operators. The Law on State Enterprises (Order No. 39L/CTN/1995 dated April 30, 1995) outlines the conditions for restructuring the SOEs and gives rules on how they should operate.

The *Law on State Enterprises* is a comprehensive piece of legislation "to promote the effective operation of the State enterprises and to strengthen State management with regard to the enterprises", dealing with a wide range of issues: definition of SOEs, rights and obligations of SOEs, management structures for SOEs and supervision of SOEs; accounting and auditing requirements.

State enterprises are established in "key and important sectors or areas likely to open the way and create conditions for other economic sectors to develop, promote the quick and sustainable development of the economy, regularize and guide the market economy along the socialist orientation" (art 1).

The Law applies to existing State enterprises (i) that are 100 percent government owned as well as to (ii) where the state holds a dominant state share (i.e. more than 50 per cent or a share of equity at least twice as large as any other share owner), and (iii) where the state holds a special state share (i.e. a special right to decide on important enterprises issues independently of share ownership). The law lays down, also, a clear procedure for the creation of new SOEs in key sectors in order to act as catalysts for the growth of the market economy.

Large SOEs with independent financial account will have a management structure including: (a) a board of management acting as a board of directors; (b) a general director responsible before the board of management for the day-to day management and running of the operations; (c) a control commission of five members to control and supervise the executive activities of the general director and to report periodically to the board of management, (d) a collective of workers as a direct form for the laborers to take part in the management of the workers. For small SOEs without a management board, the Director will be the legal representative of the enterprise. The member units which are self-accounting enterprises take responsibility for debts and commitment. The members which are dependent accounting units have obligation to operate their business in accordance with the objective and scope as assigned by the corporation; they are, however, authorized to sign economic contracts and can take initiatives in undertaking business operations, but the Corporation takes final responsibility for the financial obligations arising from the commitments of these units.

The law has represented important progress in establishing SOEs as separate, legal

entities with limited liability and in clarifying responsibilities and accountability regarding the management structure of SOEs and the rights and duties of Government as owner. The law has in particular:

- clarified rights regarding the establishment and dissolution of SOEs and the role of the government in the exercise of ownership rights in these enterprises, which can be delegated to central government ministries or the people's committees of provinces and municipalities.
- defined the rights and responsibilities of SOEs, including rights regarding divestiture and equitization, and the disposition of assets;
- defined rights and responsibilities of chief executives and boards of management;
- required SOEs to produce annual reports, including financial reports, and to be subjected to audits: and
- clarified the rights of chief executives in day-to-day decision making, the rights to consultation of the workers 's collective and the role of state management agencies.

Government Decree No. 56-CP/1996, dated October 2, 1996 distinguishes between two types of state enterprises on the basis of their objective:

a) "Business State Enterprises": enterprises with "profit maximization" as their primary objective; and

b) "Public Service State Enterprises": enterprises which operate in accordance with state social policies and produce or provide public goods and services or are responsible for implementing defense and security related activities.

The Public Service SOEs are independent state enterprises or independent cost accounting unit of state corporations which have the responsibility to produce goods and /or provide public services according to plans and production orders of the state.

These enterprises are enterprises which have at least 70% of their turnover generated from the activities in (a) urban communication and public-utility works; (b) management, exploitation, renovation and maintenance of the infrastructure system: the national system of railways, land roads, waterways, airports, flight control, maritime insurance and navigation control, piloting and /or towing ships into or out of sea ports.

The public service SOEs must "sell their products or supply their services at the prices within the price brackets or charges set by the state. If the revenue cannot fully cover the reasonable expenses, the state shall subdivide the difference and ensure the reasonable material interests for the laborers".

The provisions of the decree apply also to state business enterprises; "when conducting public service activities assigned by the competent state agency, the state business enterprises shall be entitled to the regime of allowances, price

subsidies and other preferential regimes corresponding to the volume of public utility products or services".

Both type of state enterprises, however, operate on the same basis as private companies, with similar corporate governance structure and similar obligations.

It is estimated that out of about 350 SOEs under central government, only 82 SOEs are classified as Public Service SOEs, which should not be equitized. About 300 further SOEs under provincial government provide transport services. The SOEs under MOT are listed in Appendix A, grouped according to their responsible agency and their classification into the two types defined above. This list excludes those in the aviation subsector and in the provinces.

In practice the paradoxical result of establishing public service enterprises may help to keep personnel advantages for the staff of these enterprises rather than setting up efficient public services.

For example, two circulars from the Ministry of Finance and the Ministry of Transport have provided guidance on the financial management regime of the public interest State enterprises in railway and inland water transport (see Joint Circular No. 154/TTLT-BTC-BGTVT/1998 dated December 4, 1998 for the Inland Waterways service, and Joint Circular No. 161/TTLT-BTC-BGTVT/1998 dated December 16, 1998 in the field of railway infrastructure management and repair). These circulars remove ownership responsibility from the SOEs and give various concessions to the SOEs, including removal of the need to pay for state assets that they use and the possibility to diversify into approved commercial businesses. Such mixing of public service concessions and commercial activities is likely to reduce accountability and may lead to market distortions and misuse of state assets (unfair competition due to use of state assets for purposes for which they were not originally intended, at no cost to the business). Responsibility for setting charges and achieving profitable operation is also removed from the SOEs, and this limits the possibilities for improving efficiency incentives through contracting services. In particular these Joint Circulars specify that:

- These enterprises shall not have to make basic amortization but only to determine and monitor the wear and tear level as prescribed in art 19 (Regime of Management, use and amortization of fixed assets - Decision No. 1062/TC/QDCSTC/1996 dated November 14,1996 of the Finance Minister) nor to pay fees for the use of the State Budget capital (for the railway). State-invested property belonging to the infrastructure of inland waterways transport shall not be subject to depreciation.
- apart from the assigned public-utility tasks, can undertake business activities if written approval by MOT (for railways) or by the agencies which control the SOE such as VIWA, or another ministry (Energy, Agriculture, Industry, Defense) for SOEs belonging to other ministries.

- legislation on the financial management of the SOE is applicable: to produce annual financial reports and be subjected to audits. VIWA for IWT (river) and MOT for VRU (Railways) are responsible for the financial control in coordination with the General Department for Management of the State Capital and Asset in State Enterprises (within the Ministry of Finance).
- turnover from public interest activities shall be used to cover the costs of public-interest activities . Turnover from business activities shall be used to cover the cost of production and other taxes; business must be profitable and losses incurred must not be offset with profits from public-interest activities.
- when the SOE makes profits it pays taxes. After payment 50% goes for a development fund, 10% for a financial reserve account which must not exceed 20% of the social capital of the SOE. Deductions for rewards and welfare funds should not represent more than three months of salaries.
- for products and services to be paid by the state based on controlled tariff and if such tariffs are not enough to cover their reasonable expenses, the state will cover the losses.

State Owned Corporations

Corporations constituted under the Law on State Enterprises have a managing board and general director whose functions are defined in this law.

The managing board has the responsibility for the development of the corporation in accordance with the tasks assigned by the state. The managing board and general director are appointed and dismissed by the Prime Minister. Other directors are appointed by agencies authorized by the Prime Minister (often including the General Director of the relevant government department or subsector agency - which can lead to uneasily close links between the corporation and its regulatory authority).

The general director, has the following tasks: (i) to work out the development strategy the long term and annual plans, the program of action, projects for new investment, (ii) to work out and submit to the managing board for approval the economic and technical norms, the selling prices of product and services.

Results of SOE Reform

The establishment of State Corporations was part of broader reforms to consolidate economic activities and business under a single state management unit with two key elements of corporate governance : (i) creation of separate legal entities, independent from line ministries and distinct from government agencies. (ii) separation of state management functions from business management functions, making these enterprise less subject to the direct control of line ministries.

In general, it would appear that the results are mixed and have not met the early expectations: "the creation of Boards of Management for Corporations has not resolved conflicts and confusion over the exercise of ownership rights, nor has it consistently improved management skills within the enterprises. The State still directly exercises control over final decisions on major policies, investment plans and on the appointment and dismissal of senior management. There is no immediate evidence - in the form of readily available financial statements, especially consolidated statements - of improvements in accountability and transparency"[1].

It is possible that some profitable enterprises may be providing a source of funds for others which are less profitable. Such cross-subsidization not only causes resources to be used inefficiently but also weakens the supposed economic rationality which justified the establishment of these corporations.

Concern has been raised, also, that these business corporations tend to coordinate the operations of their members enterprises in such a way that they:

- develop monopoly positions;
- resist further management reforms;
- make management less cost effective, offering a lower quality of service and charging higher prices due to the lack of real competition,
- encourage the cross-subsidization of loss making enterprises by more profitable ones within the corporations.
- prevent new entry by private sector and other state owned operators, to the extent that these corporations are able to influence policy or have a dominant presence in the market.

These risks are real with the three state transport corporations established under Decision 91:

(a) VINASHIN with all the shipyards consolidated under the same corporation, represents a *de facto* monopoly within the shipbuilding industry;
(b) VINALINES has reunited, under the same corporation, all the state shipping companies plus the major ports and a number of enterprises in joint venture with foreign-owned capital. VINALINES has the potential to exploit a monopoly situation in the port business and domestic maritime transport business.
(c) Vietnam Airlines Corporation (VAC) has incorporated all activities related to civil aviation transport including the dominant flagship carrier Vietnam Airlines and the two other Vietnamese airlines (Pacific Airlines and VASCO). However Vietnam Airlines has no independent management or accounts so there is no real distinction between this airlines and VAC (which effectively can protect Vietnam Airlines from domestic competition).

1 *Report on policies for industrial development and enterprise reform. Center for International Economics Canberra, April 1998.*

The government has plans for further reforms of the 5,700 SOEs in Vietnam and is currently embarking on a classification of SOEs into three groups (a) very profitable SOEs that are to be more efficiently restructured in accordance with new standards, and possibly equitized, (b) less profitable SOEs that need restructuring in order to reduce debt to asset ratios, especially by merging them to cut costs, and liquidating unprofitable ones, and (c) loss-making SOEs that will be sold or liquidated. Debt payment ability would thus become a major criteria determining the restructuring of SOEs.

As part of these reforms, Decree No. 103/1999/ND-CP dated September 10, 1999, has been introduced to enable small SOEs with less than VND 1 billion (and, in some cases, up to VND 5 billion) asset value to be handed over, sold, contracted or leased. Provision is made under this decree to value the assets based on agreed prices between seller and buyer and even to auction the SOE where there are two potential buyers. Provision is also made for dealing with labor rights and debt (including giving discounts on asset prices for undertaking to invest and provide employment).

This program could mean faster equitizing of non-strategic transport SOEs, especially those providing road and inland water transport services and those providing construction and other support services. However according to government policy, rail, aviation and ocean-shipping SOEs are regarded as strategic and therefore not to be equitized. Furthermore there would be insufficient interest to invest private capital in large entities such as ports and the railway, partly because of labor obligations and the presence of large numbers of surplus staff. Therefore there may be little reform of enterprises in three out of the five major modes of domestic transport for many years to come, unless intermediate reforms such as corporatization or commercialization are pursued.

1.4 Regulatory Framework

Apart from the laws, decisions and decrees that define the organisations of the transport sector, there are legal provisions defining important functions within the transport sector which can be grouped as follows:

- modal transport acts (where they exist, giving the basis for transport activity using each mode)
- specific implementing regulations, usually for each mode, giving the precise rules for general transport activities (traffic regulations, inspection and registration of equipment)
- business regulations (transport licensing, tariff setting etc.) which define the legal basis for commercial transport services
- other aspects (safety, planning and provision of infrastructure, insurance)

The main features are summarized below based on the list of key provisions given in Appendix B (along with provisions which define the organisations).

(a) Modal Transport Acts

It is common practice in many countries to enact basic transport laws for each mode, or for several modes, covering the main provisions and incorporating enabling powers for a designated governmental department in charge of establishing standards and regulations pursuant to the basic law.

So far, the National Assembly has only adopted the Maritime Code, in June 30, 1990, and the law on Civil Aviation, in December 26, 1991 (followed by the Law on Amendments and Addition of the Law on Civil Aviation adopted in April 20,1995).

A Road Act has been under preparation for the past five years with the assistance of the Asian Development Bank. A seventh draft version has just been released (June 1999) but the document is not yet ready for its submission before the National Assembly. One of the reasons for the delay could be that it covers too many areas at the same time and tries to include details that are best left to implementing regulations (a common concern of reforming governments is to avoid dilution of reforms at lower levels, and this can lead to excessive detail in primary legislation). Drafting legislation is made more problematic by the implementation of separate transport legislation in overlapping areas such as transport safety (for example the Government Decree No. 36/CP/1995 dated May 29,1995, which concerns the basis for regulating road safety) and Decree No. 80-CP/1996 dated December 5, 1996 which defines the organization and operation of transport inspection activities).

There are no immediate plans for submission of bills on Rail Traffic, on Inland Waterway Traffic, nor a second bill amending and supplementing a number of articles of the Vietnam Civil Aviation Law. The latter was initially supposed to be presented to the National Assembly, under the Preparatory Program of the 1999 legislature but has been postponed. The other bills have not yet reached advanced draft stage.

These bills each cover just a single mode of transport. The legal basis for multimodal and intermodal transport is not easily addressed through such an approach. However no umbrella Transport Act is currently under consideration.

(b) Implementing Regulations

Some of these implement the new enabling legislation, such as the Maritime Code, Law on Civil Aviation, and Decree on Road Safety. Others define the conditions for transport activity without the support of such high level supporting legislation. Some of the latter are merely updates of old legislation which try to meet current pressing needs, but inevitably do not form a consistent set of

provisions that meet modern needs and overall policy objectives.

For example road vehicle size and weight regulations have been a major issue for many years and, until recently, have prevented efficient modern forms of road transport (such as container deliveries to/from ports). Even now they are complicated and difficult for road users to understand and involve complicated bureaucratic procedures for law-abiding transport operators. Not surprisingly one truck operator described the regulatory system as something that people use (rather than something that people obey).

(c) Business Regulations

A similar situation is found for business regulations. In the maritime subsector there are relatively clear licensing requirements for operators wishing to provide shipping services. However for other modes there are still serious defects.

For example transport licensing regulations for roads and inland water transport often define precise routes for particular vehicles or vessels rather than specifying categories of routes built to appropriate minimum technical specifications for particular types of vehicles or vessels. This inhibits efficient use of transport equipment.

Many business regulations are excessively vague and allow considerable discretion in their interpretation. The actual interval of licenses are often too short, less than the maximum given in regulation. Not surprisingly, operators complain about excessive time taken to get and renew licenses.

During the VITRANSS study all these transport business licences were scrapped under Decree No. 19 dated February 3, 2000. Any future licences will be approved by government in accordance with Article 6 of the Law on Enterprises (Law No. 13/1999/QH10).

Many detailed regulations on transport prices are applied which would normally not be enforced in a market economy. These are likely to cause distortions such as cross-subsidies and inadequate supply of transport for some services.

(d) International Conventions in Maritime, Land and Air Transport

Vietnam has signed most of the international maritime conventions, including:

- LL (Load Level) Convention (1966),
- SOLAS (Safety of life at sea) Convention (1974) and SOLAS PROT (1978),
- MARPOL (Maritime pollution) Convention (1978),
- STCW (Standardized Training and Certification Workers) Convention (1978),
- COLREG (1972),

- TONNAGE (maximum dead weight) Convention (1969),
- ILO Convention No. 147 (on the welfare of the crew), and
- Memorandum of Understanding on Port State Control (PSC) for the Asia Pacific region (Tokyo MOU) signed at Tokyo in December 1993.

IMO insists on states ratifying IMO conventions, especially that concerned with Port State Control, to have efficient maritime administrations staffed by well-trained, reasonably well-paid and experienced personnel. This is a major challenge for the Vietnam maritime sector.

A number of United Nations Agreements and Conventions cover border crossing transport operations. None of them have so far been signed by Vietnam. The purpose of all these conventions is to increase efficiency by performing complex operations as rationally as possible. As regional integration continues there will be increasing pressure on Vietnam to incorporate these conventions into domestic law.

Some important conventions are:

- Convention concerning the International Transport of goods by Rail (COTIF Convention)
- Customs Convention on the International Transport of Goods under Cover of TIR Carnets (TIR Convention), 1975
- Customs Convention on the Temporary Importation of Commercial Road Vehicles, 1956
- Customs Conventions on Containers, 1972
- International Convention on the Harmonization of Frontier Controls of Goods, 1982
- Convention on the Contract for the International Carriage of Goods by Road (CMR), 1956
- Convention on Road Traffic , 1968
- Convention on Roads Signs and Signals, 1968
- Convention on the Registration of Inland Navigation Vessels , 1965
- Convention relating to the Limitation of the Liability of Owners of Inland Navigation Vessels (CLN) 1973 and Protocol (1978)
- Convention on the Contract for the International Carriage of Passengers and Luggage by Inland Waterways (CVN) 1976 and Protocol (1978).

Vietnam has signed several conventions regarding international air law (see Appendix C for details).

(e) Other Aspects

Insurance provisions require basic insurance cover for defined types of transport activity and allow competitive provision of that cover (with the possibility for price

incentives to be given by insurance companies for safe operation).

The basis for transport infrastructure planning and finance is given in Decree No. 42/CP/1996 dated July 16, 1996. This applies across all sectors of the economy and gives responsibility for allocating resources in terms of three levels of investment. In the transport sector this means that:

- Group A - transport investments over US$ 15 million (US$ 30 million for ports), plus BOT types and virtually any ODA project, are to be submitted by MOT to the Prime Minister for approval
- Group B - above 30 billion VND (US$ 2.2 million) but below the levels of Group A, are to be decided by MOT after approval by MPI
- Group C - below 30 billion VND (US$ 2.2 million), can be decided by MOT (or even delegated to its subsector agencies provided they follow the Decree No. 42 and obtain approval from MPI).

There is no carriage of goods act in which the limits of liability of carriers for loss or damage are given. Furthermore there is no provision in law for a forwarder to act as a principal or Multimodal Transport Operator (MTO) who is contractually responsible for door-to-door transport.

There is a need to incorporate into Vietnamese law the various international agreements and protocols which the government has entered into in recent years (especially the ASEAN agreements which liberalize transport between countries in the region).

Various decrees have been implemented which provide the legal basis for BOT agreements (which themselves have to be authorized through implementing regulations on a case-by-case basis).

1.5 Objectives of Institutional Reform

For the purpose of analyzing the institutional development needs in the transport sector, the following long-term objectives of transport policy, which are based on current government goals, have been assumed:

(a) to put in place a business and regulatory environment in which:

- transport customers are free to choose between competing alternative services,
- transport providers are free to supply services in accordance with demand,
- infrastructure construction and maintenance are carried out by autonomous state-owned or privately-owned organizations on a competitive basis,
- government does not discriminate between state-owned and privately owned transport operators and contractors, and,
- prices, set by market forces, reflect the real (economic) costs to the economy

and are not distorted by government controls, subsidies and other interventions.

(b) to open up as much as possible of the transport system, including civil works, to competition,

(c) to facilitate upgrading and maintenance of transport infrastructure by making users pay for the improvements made,

(d) to ensure that scarce government funds are allocated to the most economically beneficial uses,

(e) to raise the efficiency of state enterprises by giving them greater incentive to run their businesses along commercial lines, at the same time, holding them responsible for their financial performance,

(f) to protect safety and environmental standards,

(g) to protect the interests of socially or economically disadvantaged groups through carefully targeted support which encourages efficiency and minimizes costs.

To give more specific guidance to the analysis of institutional problems and assess possible solutions, the strategic objectives and strategies for transport development proposed within the VITRANSS study have been adopted. These have been developed to implement the proposed VITRANSS Master Plan and can be summarized as follows:

(a) Improving the basis of transport planning

In order to provide the required transport services at least cost, transport plans must be developed for the sector as a whole and projects identified which meet development goals at least overall cost to the country. This requires improved planning systems based on economic principles to prioritize investment projects in accordance with the country's needs, taking account of

- different options for infrastructure development (maintenance, rehabilitation, reconstruction and construction),
- different options for development of each mode,
- possible interactions between modes and between local and national networks.

(b) Improving the basis of competition

This is required to promote efficient services and allow each mode to play its role efficiently. In general terms this requires continued development of the regulatory framework, taking account of the economic characteristics of each mode and the need for setting minimum safety and environmental standards. Most modes are inherently competitive and require regulations that allow free entry into transport businesses and freedom to set prices of transport services, subject to minimum safety and environmental standards being observed. Where the transport sector is not inherently competitive, due to tendencies towards monopolization (as

might occur with fixed infrastructure such as sea ports outside main centers) there is a need to consider price or other controls.

(c) Adoption of economically sound pricing and cost recovery policies

This is required to allocate traffic between modes in order to minimize overall costs to the country. It involves (i) removal of unjustifiable subsidies or other interventions that favor one mode over another or distort decision-making by transport users, and (ii) adjusting transport prices through a system of user charges or taxes, in order to bring actual transport prices closer to the underlying costs incurred by the country (at least equal to the variable cost of infrastructure maintenance). Current Vietnam Government policies are broadly consistent with such principles. These policies require total cost recovery for revenue-earning entities such as ports, airports and the railway (although certain railway infrastructure costs are subsidized by government at present). For public infrastructure such as road and inland waterways, the Vietnam government policy is to recover at least the variable costs of operation and infrastructure maintenance plus, if possible, a contribution towards fixed costs.

(d) Where subsidies are still required, these should be provided in a way that minimizes the costs involved

Subsidies may still be required for social or other purposes and can be direct either towards inputs like fuel or towards outputs like transport prices. Furthermore they can be given for specific services, for a specific time period, or they can be given in more general ways to operators for an indefinite way. Usually subsidies of outputs, directed towards specific services for specific periods of time, awarded on a competitive basis to the lowest-cost operator, will minimize the cost of subsidies and release resources for more productive uses.

(e) Foster competition by accelerating equitization and commercialization of SOEs

It is government policy to increase SOE efficiency by increasing management incentives and accountability for financial performance, through equitization and/or restructuring. This will increase efficiency of SOEs and enhance competition in the transport sector.

(f) Improving funding mechanisms for infrastructure, especially maintenance

Even with sound pricing policies there is a need to have effective financing systems that direct adequate funds to the maintenance units and other places needed to manage infrastructure. There is a need to find alternative sources of finance, including private sources. This is a priority area for the government.

1.6 Approach to Analysis

Types of Institutional Problem

This paper analyzes institutional development problems in the transport sector in order to find (i) institutional bottlenecks that might prevent implementation of the above strategies, (ii) the best ways to remove these bottleneck. To ensure a comprehensive approach, the analysis is done in terms of the following possible aspects:

- lack of clear definition of functions of organizational units, or overlap of responsibilities between units,
- inadequate lines of responsibility/authority which prevent delegation of responsibility with effective reporting systems,
- ineffective steering mechanisms that guide policy implementation and encourage efficient administration,
- inadequate provisioning which prevents resources from being made available to perform certain tasks.

The analysis is carried out separately for (a) overall transport sector aspects, focusing on the policy-making concerns of MOT, and (b) aspects of specific importance in each subsector (six modes in all including, where relevant, multimodal, cross-border, urban and rural aspects). In each case the specific issues involved are summarized based on replies to VITRANSS questionnaires on institutional issues (described in more detail below), VITRANSS work carried out elsewhere (especially the subsector studies and the various VITRANSS surveys of the transport industry and of issues of concern to provincial governments) and previous or on-going institutional strengthening projects. Based on the overall recommended Master Plan strategy summarized above, the analysis sets out specific developmental objectives and strategies relevant to each level/subsector, and analyses the institutional issues raised in implementing these strategies.

When analyzing subsector institutional issues, a distinction is made between (a) issues concerning state management of the sector (including regulation of transport services and management of infrastructure), and (b) issues concerning the management of transport SOEs (transport construction/maintenance enterprises and those enterprises providing transport services).

When analyzing regulatory issues, account is taken of the different basic economic characteristics of each subsector. Namely, inherently competitive transport service like roads, which require economic liberalization with strict safety/environmental standards, are treated differently from those that require account to be taken of market failure due to monopolies (for example, perhaps in provision of port services outside the main centers).

Guiding principles for assessing the need for institutional change include the need for:

(a) establishing a coherent process for managing the transport sector based on clear distinction between policy-making and policy implementation, and between oversight functions and commercial functions, in line with the needs of the market economy (as enshrined in government reforms to date),
(b) improving the way that markets work in the transport sector, supported by the timely supply of the necessary infrastructure, to supply an efficient and sustainable customer-oriented transport sector.

Example of Analysis Applied to Sector Management

The following possible hypothetical examples can be given to illustrate the approach - applied to analysis of the way the transport sector is managed:

Functional Definitions

Lack of a clear legal basis for an organizational unit is likely to lead to confusion about its responsibilities. This is not uncommon in Vietnam where the roles of many government organisations are changing in accordance with the needs of the market economy and it is difficult for government to introduce supporting legislation at the same time. Even when the there is a clear legal basis for agencies, conflicting responsibilities can still occur if the legislation is not coordinated to avoid overlapping jurisdictions. This is particularly likely where modes overlap, as occurs between sea and inland water transport, and may adversely affect planning, setting of appropriate standards, monitoring and enforcement. Unclear responsibilities between MOT and subsector agencies may lead to duplication of effort over drafting legislation, preparation of plans etc. In some cases inappropriate responsibilities may be given to organisations - for example giving responsibilities for managing commercial transport activities to regulatory agencies would undermine the principle of independent regulation (the regulator would be regulating him/herself and might not set the same standards for him/herself as are applied to others).

Lines of Responsibility or Authority

Effective links between organizational units are required to enable instructions to be issued and confirmation received of action taken - they are the means by which the government decentralizes decision-making. Ineffective lines can result from

- the legal basis for an organizational unit does not specify lines of authority or reporting lines,
- guidance documents are not produced which define how authority is to be exercised or how reporting activities are to be carried out,
- excessively complicated bureaucratic rules that slow up administrative procedures.

Such problems are very common in Vietnam, not only because of the delays in

implementing the legal basis for organisations, but because of the government's decentralization policy, which requires guidance documents being produced for most administrative tasks. In transport project preparation and implementation alone, this requires guidance documents at every stage of the process - from project identification, through project design and evaluation, to project completion. The problem is compounded by the introduction of new concepts such as the evaluation and contracting procedures that have to be introduced to Vietnam for internationally-funded projects - unless staff are equipped to work with the new concepts, delays will occur.

Steering Mechanisms

Even if administrative rules are clear, they will not be fully effective unless there are suitable incentives or controls. Possible incentives include performance-related pay in which the salaries of individuals or groups are related to productivity or service level offered. Controls include budgetary systems that account for expenditure allocated to various activities and monitoring schemes that compare results achieved with targets. In Vietnam, limited funds and lack of flexibility in government pay scales limit the scope for incentive schemes (except in commercial agencies). The effectiveness of budgetary controls is limited by the lack of suitable costing tools that relate expenditure to particular activities. Effectiveness of performance monitoring in Vietnam is frequently limited by inadequate information about transport conditions - for example inventories of infrastructure which are used to assess effectiveness of maintenance practices are often inadequate.

Provisioning

Inadequate mechanisms for financing activities such as infrastructure maintenance or even the administrative system itself, will obviously become a major bottleneck in implementing policy, even if the funds are available. This is widely recognized as a major problem in the transport sector, where delayed payments lead to accumulating debt in maintenance units.

Example of Analysis Applied to SOE Management

As an example of the way the approach has been applied to analysis of institutional bottlenecks within SOEs, the following equally hypothetical examples are given.

In the first case, lack of clear division, between MOT and railway or other SOE transport operator, of responsibilities for managing transport services, would lead to poor direction and lack of accountability. In the second case, unclear lines of authority between the marketing manager and production manager within a SOE transport operator would weaken the ability of the operator to tailor services in accordance with the needs of customers. In the third case, lack of a clear contract or agreement defining the MOT's relationship with the railway or between the executive of a corporation and the management of its SOEs would not give a clear basis for assessing performance of the operating units. Finally, if tariff controls restrict SOE

management's ability to finance services, then management would be unable to adapt supply to demand (causing overloading, poor quality service, lack of investment etc.).

1.7 Analysis

The analysis is based on questionnaires sent to a wide range of government agencies during the early 1999, including various departments of the MOT, all subsector agencies, all provincial transport departments, the Ministry of Planning and Investment, the Ministry of Finance, and Ministry of Police.

These questionnaires asked the following types of questions (adapted in accordance with the particular circumstances of each organization):

(a) General Aspects
- What is the legal basis for the organization and for activities in the sector?
- What is current policy, investment and infrastructure maintenance plans?
- What is the role of foreign assistance?
- What amounts of finance are allocated for each purpose?
- How does the agency engage in dialogue with the public and transport users?

(b) Infrastructure and/or control system
- What are priorities for infrastructure development?
- What are priorities for improving the way technical standards are set?
- What are priorities for improving competition?
- What are priorities for improving finance of construction and maintenance?
- What is the equitization plan?
- What monitoring information is collected? How will this be improved?

(c) Transport Operations
- What are priorities for improving mechanism of setting technical standards?
- What are priorities for establishing a level-playing-field?
- What is the equitization plan?
- What tariff controls are applied? What is the view on the need for these?
- What monitoring data are currently collected? What additional data are needed?

(d) Safety Aspects
- Is the previously recommended transport safety plan being implemented? Describe bottlenecks.
- What are priorities for improving safety?

(e) Institutional Development
- What foreign assistance projects have given institutional development recommendations?
- What are the bottlenecks to implementing the recommendations (powers of responsibilities of government agencies, accountability, lines of communication, lack of clear standards, poor legal framework, poor coordination, budget procedures, finance, human resources)?
- How helpful have past institutional development projects been?

What institutional development problems remain?
What is the human resource development plan?

The response from most of these organizations was very good and the consultants are very grateful for the cooperation received. Follow-up meetings were held in many cases to clarify issues and discuss strategy options. Additional meetings were conducted with typical stakeholders around the country (freight customers, freight forwarders, transport operators, and PTA staff), which complemented the survey data already collected on transport industries, on passenger attitudes to bus services and driver interviews in terminals.

Together with other VITRANSS reports (which provided much factual material concerned with assessment of efficiency, extent of competition, price distortions etc.) and previous study reports (which often contained specific institutional proposals already accepted by government), the information enabled institutional bottlenecks to be identified and the underlying causes appreciated. Possible solutions were often suggested in the answers to the questionnaires, which were fully considered in the analysis.

Options for improvement were considered taking account of potential constraints on implementation, such as budgetary restrictions and limitations on achievable enforcement levels. Where alternative improvements were possible, arguments were given for the recommended improvement.

A draft version of this report was widely circulated to obtain feedback on the contents. The report generated many helpful comments and constructive suggestions from people and organisations throughout the transport sector. All comments and suggestions were gratefully received and taken account of in the final draft.

1.8 Purpose of this Report

This report is intended to continue the discussion of strategy options for institutional development by:

(a) analyzing institutional problems within the transport sector and setting out proposed long-term strategies, initially for the transport sector as a whole (in Chapter 2), then in more specific detail for each subsector (in Chapter 3),
(b) identifying, in detail, the next steps that are required to be taken in implementing these strategies in the short-term (in Chapter 4, which also includes a summary of the earlier chapters).

The report concludes with a tentative implementation plan, containing the policy actions and institutional changes required to support implementation of the VITRANSS master plan in the short-term (complementing work elsewhere in the Study on planning, subsector studies and developing investment plans). This

tentative implementation plan requires further prioritization and refinement by government, taking account of implementation constraints, before it can be finalized.

The results are intended to be used to help formulate policies, strategies and short-term action plans, including institutional strengthening projects, which should help the government take the next steps in institutional reform.

Readers not concerned with the detailed analysis of issues and subsector strategies, are invited to turn straight to Chapter 4, which sets out the future vision of the organization of the Vietnam transport sector, summarizes the long-term strategies given in earlier chapters, and then describes the recommended short-term policy priorities and institutional reform measures.

2 OVERALL SECTOR MANAGEMENT

2.1 Issues

Institutional Arrangements

1) Overall Organization

Main issues with the overall organization of the transport sector include the excessive number of reporting lines to the MOT, lack of MOT authority at provincial level, and the lack of oversight by the MOT of the whole transport sector, including aviation, which makes the development of comprehensive transport policies and plans more difficult.

In particular, the MOT has limited control over the appointment of the directors of PTAs, which are presently appointed by People's Committees. The PTAs are ultimately responsible for implementing many transport policies and reporting on transport activities to the ministry, so it would be appropriate to have stronger control over the appointment (at least in terms of the professional qualifications).

2) Over-centralized management systems

Subsector agencies under the MOT are seriously weak in several respects. Often they are not given authority for managing construction projects in their subsector, this being given to especially created project implementation units (PMUs) responsible to the MOT. This undermines the role of subsector agencies as managers of infrastructure and there is a danger that the expertise in project management developed in the PMUs will be dissipated once the projects terminate and the PMUs are disbanded.

Subsector agencies are often weak in planning terms. For example, VINAMARINE cannot develop plans for port development effectively because it lacks information about ports not under the MOT. Since it cannot comment informatively on port development plans proposed by other organizations, there is a serious risk that port developments will occur without regard to Vietnam's overall development priorities (for example, ports constructed in the wrong place that incur costly additional inland transport and other infrastructure). Even the MOT does not seem to be as strong as it should be to carry out strategic port planning: The Prime Minister has had to intervene in the past year to reinforce MOT's authority.

Within it, many departments report directly to the minister (for example, the new ASEAN department reports independently from the International Department). Depending on the organizational policy of the minister, there is scope for

consolidation of these general departments into a smaller number, with appropriate subdivisions (maybe combining economics, planning and regulatory aspects to improve coordinated policy and plan development). The main responsibilities of each department are shown in Table 2.1.1.

Throughout the transport sector organizational units have insufficiently well-defined function and authority (which limits the degree to which job descriptions can be defined). It seems not unusual within government for more than one person to be appointed to cover the same area of responsibility, and this causes confusion. Lack of coordination of infrastructure planning, policy development, maintenance and implementation are frequently heard from the provinces. Over-centralization is clearly one reason for delays in implementing projects.

3) Lack of trained staff and human resource development programs

The training of staff has not kept pace with the rate at which MOT's organizational units have adopted new functions, requiring new guidance documents (often based on international practice). This can be traced to two factors (which adversely affect not only sector management but also management of transport enterprises):

- weakness in human resource management, which has been considered a peripheral activity in Vietnam with low status,
- lack of human resource development policies - the MOT has still to develop its policy and has no specific strategies for improving staff qualification levels, training and staff motivation.

Training in sector management has tended to focus on project implementation of internationally-funded projects, but even there difficulties occur due to lack of training (partly because the government has not used donor funds available for training). Elsewhere, according to past studies (ITAMC Development Strategy and Action Plan, 1995), management training programs are poor and outdated, and do not meet the needs of administrative cadres, specialists in planning, economics, engineering and statistics, or senior policy-makers.

In particular there is an underlying lack of experience of modern planning tools, project appraisal and management systems, procurement techniques and regulatory systems appropriate for market economies. Experienced economists in the transport sector have had most of their training in centrally-planned economies rather than market economies, and few younger economists seem to be getting overseas training to equip them for the future needs of the sector. Many staff lack basic skills in English and in the use of modern technology (such as computers for database management).

Table 2.1.1

Functions of the Ministry of Transport General Staff Departments

Department	Function	Implementing Decree	Number of Staff
Minister's office	Counsels the minister and provides day-to-day executive leadership	1678QD/TCCB-LD of 7/7/88	77
Inspection Board	Inspects adherence to administrative rules	1151/QD-TTR of 12/6/93	15
Planning and Investment	Administers planning, investment projects, planning statistics, import-export (foreign investment in infrastructure)	1460QD/TCCB-LD of 12/9/96	32
Finance and accounting	Administers and manages the overall state financing of the transport sector	2162QD/TCCB-LD of 16/8/96	12
Legal and transport	Administers legal and transport matters	2153QD/TCCB-LD of 15/8/96	16
Science and technology	Administers and takes care of policy in science, technology, industrial production/organization in the transport sector	2166QD/TCCB-LD of 16/8/96	18
Labor and personnel	Administers several fields such as organization, state officers, training and wages in the transport sector	576QD/TCCB-LD of 18/3/88	21
International relations	Administers guidelines and policy-making of international relations in the transport sector	2168QD/TCCB-LD of 16/8/96	12
ASEAN	Assists the minister in relation to ASEAN transport affairs	4451QD/TCCB-LD of 16/8/96	6
All departments			209

NOTE: (1) As defined in Decree No. 22-CP dated March 22, 1994, with the addition of the ASEAN Department in accordance with Minister of Transport Decision No. 4451 QD/TCCB-LD dated October 16, 1995.

The MOT lacks a long-term human resource development plan. It has a planning manual which gives the principles involved but no specific guidance about how to apply them within the transport sector. It is currently undertaking a routine survey of training needs - but this survey is still based on traditional methods of assessing qualifications and training needs. Meanwhile it has only annual training plans which utilize centrally-allocated funds for training staff through about 20 transport training schools. These funds are allocated by the Government Committee on Organization and Personnel (GCOP) for all sectors, providing training in similar institutes under other ministries and in the provinces. In 1999 about VND 54.4 billion (US$ 3.9 million) was allocated for transport-related training in the schools under MOT. This represents only about 1.3% of the MOT budget.

There are several training institutes which could, in principle, offer the training required to implement the sector management improvement recommended in VITRANSS. In particular these include

- Hanoi University of Transport (UT), under the Ministry of Education, with a large branch in HCMC, and specializes in transport engineering,
- Hanoi University of Civil Engineering, under the Ministry of Education, and specializes in general construction engineering,
- Vietnam Maritime University (VIMARU), under MOT, in Haiphong, and specializes in higher education in a wide range of maritime subjects,
- Institute of Training and Enhancing Cadres and State Officials of the Transport Sector (ITECSOTS), formerly known as ITAMC, under the MOT some distance outside Hanoi, offering administrative training to MOT staff at all levels (this institute is part of the state training system for civil servants, administered by GCOP)
- National Institute for Public Administration (NIPA), under GCOP, in Hanoi, offering general policy and management courses, although not specifically related to transport

Despite some improvements in training curriculums to take into account the needs of the economic renovation program and the economic orientation towards market mechanisms, the capacity for training administrators in transport remains weak in almost every aspect (quality of trainers, facilities, equipment, and syllabuses).

Government has decreed that levels of skill of all officials must be improved and that English will be a prerequisite for promotion to senior posts - in the long-term this will be a powerful incentive for training in the transport sector. However the level of pay in the MOT is, like all other ministries, much lower than equivalent jobs in business, and this will make it difficult to attract high caliber staff.

Elsewhere in the transport sector there is a general lack of experienced

managers with knowledge of modern business methods. There is also a serious shortage of skilled technical staff. On the other hand, there is an excess of unskilled staff in the ports (where VINALINES estimate that only 50% of current staff are actually required), the railway (where 20% less staff are estimated to be needed over the next ten years) and many other SOEs. One factor constraining the government's equitization program is the fear of redundancies.

These mismatches between supply and demand for labor in the transport sector require MOT human resource development policies and strategies that assess future qualification standards required throughout the transport sector and actions required to promote the supply of suitably trained personnel. Where there is an excess supply, retrenchment, retraining, compensation or other schemes have to be considered to deal with the social effects of redundancies. For developing such strategies, the Labor and Personnel Department of MOT needs strengthening.

4) Unclear and overlapping responsibilities

The MOT is currently reviewing its organizational responsibilities, in response to a request by government to all ministries to streamline the government machinery by 15%. A number of issues are being actively discussed, including the question of whether or not aviation should be brought back into the MOT. Its Transport and Legal Department has two types of responsibilities - both to give advice on legal matters to any part of the ministry and to develop policy on transport matters. These two functions do not sit easily together and it is clearly of concern to the staff involved. Proposals to separate the two halves have not been accepted, possibly because it would increase the number of departments still further.

There is considerable uncertainty over the division of responsibilities between VIWA and VINAMARINE for planning and infrastructure management of riverways, but the MOT has proposed a possible division for discussion between these two agencies, based on the principle that VINAMARINE assumes responsibility for rivers serving sea ports. No final decision has been reached so far.

Responsibilities for VRA and VIWA have been revised, through provisional MOT decrees, based on the advice from the ADB Institutional Strengthening of the Vietnam Ministry of Transport Project. The decrees give these subsector agencies the responsibility to make plans and policies in their respective area for submission to MOT for submission to government. VRA considers that the MOT’s Legal and Transport Department interferes in VRA's line management duties, and the source of the overlap appears to be the way that roads and road transport matters were separated in the past. However,

the dispute appears to be resolvable under existing legal provisions provided that it is accepted that (a) VRA's policy-making role in transport is limited to proposing policy measures to the Transport and Legal Department which remains ultimately responsible for policy-making in that field, and (b) VRA's role in legal matters of transport is to propose legal drafts in accordance with policy guidelines given by the Transport and Legal Department. However, some confusion of responsibilities may be inevitable while the Transport and Legal Department retains the dual functions of transport policy-making and giving legal advice.

5) Lack of modern management systems

A major issue is the inadequate infrastructure maintenance systems found in the transport sector, attributable to the lack of modern maintenance management systems. This problem has been recognized for years and various attempts have been made to tackle the problem, but this remains a priority area for institutional strengthening of all kinds - new management systems, information systems (including comprehensive inventories of infrastructure and work planning/management tools), new guidance documents to define procedures (both to allow decentralization and devolution of responsibilities within the sector and to coordinate activities between agencies in transport and agencies outside, especially the police).

One recurring obstacle is the lack of appreciation of the nature of a database, as a tool to collect and analyze information. All too often data is collected and analyzed manually in different parts of the organizations and used for administrators' own particular purposes rather than shared more widely. Computers are sometimes only used at a late stage in the process to produce neat tables and charts. The lack of centrally organized information leads to managers having several alternative sources of data, which usually conflict with each other. This makes decision-making very difficult and time-consuming.

It is estimated by MOT that only about 30% of the monitoring information required by MOT is currently available. A clear plan is urgently required to identify the MOT's remaining information needs and the best means to supply this. The lack of reliable monitoring information, of all sorts, leads to very poor follow-up of policy implementation by MOT. In many cases follow-up is limited to financial matters, with little concern for performance and level of service.

The poor information system also produces very poor statistics for planning purposes. The present system is still based on the old centrally planned system under which government could collect detailed information about activity at local level. Such an approach is impossible in a market economy, and so a new approach must be developed based on the approaches adopted in other countries. This too is a priority measure for improvement.

6) Inadequate financing mechanism for infrastructure maintenance and other administrative tasks

Here too is a problem which is recognized at all levels. The priority concern is to provide a sustainable mechanism for financing infrastructure maintenance to safeguard the state's assets and secure returns from ongoing investment. However, better financial mechanisms are required for other state management functions, including monitoring and enforcement, and human resource development in general. The lack of finance for some enforcement activities has led to some transport inspection staff being funded essentially from fines levied on offending transport users - which certainly does not encourage inspection teams to develop measures to reduce offenses.

Regulatory Framework

1) Lack of legal framework

The MOT has given high priority to developing the regulatory framework and government has adopted the Maritime Code on June 30, 1990 and the Law on Civil Aviation (followed by the Law on Amendments and Addition of the Law on Civil Aviation dated April 20, 1995). Equivalent provisions for other modes are not yet in place, although a draft road act has been prepared and there are draft bills underway for inland water and railway transport. Amendments to the aviation and maritime legislation are also being prepared.

The modal legislation has been and is continuing to be developed without an overall transport act, which could unify the various legislation for different modes in terms of:

(1) defining the overall basis of state management of transport, including general responsibilities for planning, policy-making, regulation, infrastructure provision, and the role of the MOT, subsector agencies and provinces,
(2) defining the basis for divisions between modes, for example, between inland water and maritime transport, and the responsibility for aviation,
(3) defining the principles for regulating transport, especially coordination and competition between modes,
(4) defining terms which are to be used in other, subordinate transport legislation, such as "public" or "common-use" transport, "multimodal" transport,
(5) defining regulatory principles involved in activities that cross modes, especially freight forwarding,
(6) possibly defining bases for transport contracts and insurance, if these are not covered in other legislation.

Some of the particular advantages of this legislation are that the (1) role of the MOT in determining priorities in transport could be placed on a firmer footing (for example, to avoid the necessity for the Prime Minister to issue instructions confirming the role of the ministry in planning ports, as occurred in 1998), (2) the basis for incorporating aviation matters in transport policy-making and planning could be made clearer, and (3) the basis for regulating multimodal transport can be established.

However, it is possible that, from a legal point of view, the advantages to be gained from such an act can be achieved more conveniently by careful drafting of other existing and future legislation. Drafting such high-level enabling legislation would have to be done very carefully to avoid subsequent obstacles in drafting subsidiary legislation. There is a danger that other important legislation, such as the road act, would be delayed still further by the need to introduce the transport act.

Other important legislation defines the responsibilities and authority of the MOT and other major agencies in the transport sector. Here too there are major gaps in legislation; for example, the Vietnam Railway has not been put on a proper legal basis that would give it adequate freedom to pursue commercial activities.

2) Technical standards are not based on economic priorities and enforcement is weak

In the absence of primary legislation for roads and other modes, much of the transport sector is regulated by a wide range of decisions and rules, some of which are unsatisfactory and even contradictory. Specific deficiencies are described under each subsector later in this report.

A common characteristic of the existing regulations is that technical standards are set unrealistically high, they miss out important safety aspects and have not been drafted taking account of their economic impact. Enforcement is very weak in the country and the standards are widely ignored. The situation is obviously not helped by ineffective legislation. Consequently, even with better enforcement, the legislation would not be so effective in practice at setting minimum standards, and there is a danger that stricter implementation would incur costs on transport users that outweigh their benefits in terms of improved safety and other aims of government policy.

3) Tariff controls remain

Various circulars issued by the Government Pricing Committee and the MOT indicate the principles of remaining tariff controls. Essentially the government decides transport tariffs for certain strategic commodities, especially (1) foods

transported on the railway from the south to the north and fertilizer transported southwards in accordance with state plans (paid out of the state budget), and (2) road transport of commodities in the mountainous areas. Floor prices can be set by MOT when authorizing liner operations by foreign ship companies between Vietnamese ports in order to protect Vietnamese shipping from competition.

Passenger tariffs are controlled for railway and air transport, with different rates applying for Vietnamese and foreigners (with a ratio of about 1:2). The air fares on short domestic routes appear to be less than the costs (see Technical Report No. 3 on Transport Costs), which distorts competition between modes in Vietnam.

Port tariffs are set by government and differ between domestic cargo and imports/exports. In particular, the VINAMARINE charges used to fund infrastructure maintenance are much higher for foreign traffic than for coastal shipping (which may not even cover variable maintenance costs). In general it is doubtful if port charges are related to costs or market conditions. There are some differences in the way Vietnamese and foreign ship operators are treated.

Bus fares within and between provinces are set by the provinces, under the guidance of VRA. Some SOE bus operators are unviable at present fares and PTAs are seeking rates up to 20% higher. However competing private operators appear to be viable at the existing rates so the case for higher fares is far from clear (fares may unjustifiably exceed costs of efficient operation). The legal basis for fares controls is not clear and, in practice, operators can adjust their fares somewhat in line with market circumstances.

4) Entry controls and quantity licensing continue

Discretionary conditions continue to exist over issuing transport licences, which make licensing procedures far too complicated and involve the transport industry in unnecessary costs. There are minimum legal financial requirements applying in most cases, which increase the costs of entry.

The provinces continue to control the number of buses operating on bus routes in an attempt to balance supply and demand on different routes. The legal basis for these anti-market rules is not clear, but they are a serious impediment to entry of new operators into the business, to development of competition and new services. In practice they are protecting existing state-owned operators from new, more efficient operators.

The government has recently scrapped all current transport licences and required all future business licences to be issued under the new Law on

Enterprises (passed by the National Assembly on 12 June 1999). This creates a good opportunity to simplify the transport licensing system.

5) Economic regulation

The current framework of economic regulation of transport suffers from several types of problems:

- A wide variety of charges and taxes are levied on transport users (see Technical Report No. 3 on Transport Costs) but these are not closely related to costs of infrastructure provision or externalities such as safety and environmental costs.
- As described above, there are cross subsidies and other distortions caused by pricing controls.
- In addition there are general distortions arising from the continued operation of SOEs (such as preferential access to credit and preferential allocation of traffic).

Consequently, the basis for competition between modes is not yet in accordance with the level-playing-field concept, under which users of each mode pay for costs that they impose on society.

The extent to which competition is distorted due to subsidies, insufficient cost-coverage and other factors associated with particular modes is indicated in the tables in Appendix D (which includes a list of distortions which can be quantified using available information).

In the case of roads, major distortions which can be approximately valued at over US$ 10 million per year arise from

- road accident costs imposed on society,
- medium and heavy trucks not paying their share of road maintenance costs, and
- insufficient cost coverage of many SOE bus operators.

Revenue from railway tariffs fail to cover current costs by about US$ 15 million and is exempt from capital charges, although this is offset to some extent by payment of fuel taxes intended to pay for road maintenance.

Relatively little quantifiable distortion can be identified for inland water transport although lack of information about cost-recovery of ports and water transport companies prevents a full analysis.

In maritime transport the main quantifiable distortion arises from the poor cost recovery of the VINALINES shipping fleet (both ocean shipping and coastal shipping) which is supported by preferential credits from government, policies designed to allocate government traffic to VINALINES enterprises, and direct

interventions by VINALINES to save weak enterprises from bankruptcy (by cross-subsidizing them with profits from ports and other stronger enterprises).

In aviation, the main distortion is the excess profits earned by Vietnamese airlines in carrying foreigners on domestic routes at double the fare rate for Vietnamese. If used to cross-subsidize domestic services for Vietnamese, these profits distort competition between aviation and other modes.

State-owned Enterprise Reform

1) Background

Reform of SOEs is an important issues in the transport sector because

- transport service SOE contribute to many of the competitive distortions identified above,
- construction, maintenance and other types of SOEs play a dominant role in the construction and maintenance of transport infrastructure.

The government has set out a policy to equities, in the long term, most of the transport SOEs. Important exceptions include public service SOEs (that is SOEs carrying out infrastructure maintenance and other functions related to infrastructure) and SOEs in strategic areas in ocean shipping, the railway and aviation. It is understood that, in this context, strategic is limited to the following areas

- the main ocean shipping enterprises of VINALINES, but excluding ports and coastal shipping services,
- the core railway operations and infrastructure activities, but excluding peripheral functions such as construction and supply services,
- the airlines, airports and air traffic control functions, but excluding support services such as aircraft maintenance, ground and supply services.

Therefore while equitization is an important means of reforming SOEs, other reforms such as commercialization and corporatization have to be considered for the strategic SOEs, together with the public service SOEs and those SOEs which cannot be expected to be equitized for many years due to financial and other constraints. This section outlines the present situation regarding the government's equitization program in the transport sector, to provide a background for setting out a long-term overall strategy for SOE reform.

As described in Chapter 1, there are about 350 SOEs in the transport sector under central government (formerly under MOT), most of which are classified as business enterprises suitable for equitization. A further 300 or so are thought to be under the provinces, but this could not be confirmed. See Table 2.1.2 below for a summary of MOT enterprises, including those in the aviation sector. As described in Chapter 1, the legal basis for the SOEs is Government Decision No 90-TTg/1994 dated March 7, 1994, Government Decision No 91-TTg/1994, also dated March 7, 1994 and Prime Minister Directive No 500-TTg/1995 dated August 25, 1995. Each of these three legal measures established groups of transport enterprises subject to the law of state enterprises (as indicated in the table). Their implementation has, to a large degree, enabled separation of commercial state interests from regulatory ones.

Table 2.1.2
Number of SOEs in the Transport Sector

Type of Enterprise and Responsibility	Number of SOEs		
	Business	Public Service	Total
1. Corporations established under Decision No 91/TTg			
- VINALINES	27	0	27
- VINASHIN	24	0	24
- VAC	0	18	18
2. Corporations established under Decision No 90/TTg			
- Thang Long, CIENCOs, Inland waterway transport corporations, other construction, consultancy and industrial corporations	140	0	140
3. Enterprises established under Decision No 500-TTg/1995			
- Transport material and equipment, import/export and mechanical companies with boards of management	5	0	5
- Other enterprises with no board (services etc.)	11	0	11
4. Other enterprises under MOT line departments			
- VRA (road transport, construction, road maintenance)	13	48	61
- VRU (engineering, service and maintenance)	28	20	48
- VIWA (ports, services)	4	1	5
- VINAMARINE (ports, safety, services)	5	5	10
TOTAL	257	92	349

NOTE: (1) Excluding 15 river maintenance units that have not yet been established as public service SOEs, four ferry groups and four material equipment supply enterprises under VRA, PMUs, port authorities, training schools, health units etc.

Under Government Decree No 56-CP/1996, dated October 2, 1996 each SOE is to be classified as either a business enterprise (able to be equitized) or a public interest enterprise (not to be equitized). Most transport enterprises have been categorized as business enterprises; it is mainly infrastructure maintenance units that have been classified as public interest enterprises.

Early attempts at equitization were made in the early 1990s but little progress was made. Consolidation of enterprises, including the combining of unprofitable units into profitable ones, has created enterprises that have a mix of activities (for example, passenger and freight transport) with differing business prospects. They are therefore not so easy to equitize.

The current equitization program is defined by Government Decree No 28/CP/1996 dated May 7, 1996, Government Directive No 20/1998/CT/TTg dated April 21, 1998 and Government Decree No 44/ND-CP/1998 dated June 29, 1999. These provisions allow for the continued leading role of the state sector in key enterprises under the MOT with an accelerated equitization process through the following methods:

- selling new equities for expanding the enterprise,
- equitizing the entire enterprise,
- equitizing certain parts of an enterprise, and
- selling any state-owned shares in an equitized enterprise.

This allows for various methods of equitization, including complete transfer of assets to private owners. However, progress has been very slow. Equitization has come to be understood, to a large extent, as a means of transferring ownership from state to the workers and managers, encouraged by various incentives for share ownership for these groups. However, with a few exceptions, there has been little interest shown by the workers and management in the transport sector, who seem to fear the consequences of market competition and prefer to remain protected by government. Little interest has likewise been shown by outside investors, who do not seem to regard transport enterprises as attractive businesses. Only four MOT enterprises had been equitized by 1998.

2) Past achievements and future prospects

However, experience with the equitization process in general suggests that this can produce very good results, including more investment and business development. Government is apparently keen to accelerate the process. MOT Directive No 125/CT/1998 dated May 12, 1998 has requested subordinate organizations to prepare a list of 20% of their enterprises to be equitized in future. Nine MOT SOEs were planned for equitization in 1998, 10-15 were planned for 1999 and 30-40 planned for 2000. An equitization committee has

been established in the ministry to coordinate activities and specific responsibilities for particular tasks have been assigned to implement the new plan.

However, MOT officials do not think that progress will be rapid in future due to several obstacles. No full-time team is being set up to handle equitization in the ministry, and this threatens to limit future progress. International assistance, through a World Bank assistance program, has been requested to help develop the program, but this would require a strong local team working full time. The main obstacles to the equitization process which have been identified so far include:

(1) there is no market-based mechanism to value assets - values are set by government officials and these are reported to be too high and there is often much argument about valuation which delays the equitization process (up to three years is common in the HCMC area, although delays are less in Hanoi),
(2) as described above, despite considerable incentives for workers and managers to buy shares, the disincentives are apparently higher (it is especially considered an advantage for transport enterprises to have close friendly links with government officials to protect them from market forces, so managers are reluctant to prepare business plans for equitization),
(3) the business prospects for many transport enterprises are low, suggesting that many are close to bankruptcy (certainly many are over-staffed, have poor equipment, continue to operate in traditional ways, are accumulating debt and do not invest, so their role is declining),
(4) equitization rules prevent individual investors from gaining controlling shares (there are percentage limits on individual shareholdings and a requirement to have several owners),
(5) authorities often do not know how to implement equitization (especially at local level),
(6) rules and procedures for equitization are unclear,
(7) there are fears among workers and managers about redundancies caused by equitization, and no suitable means for compensating them or providing retraining opportunities,
(8) there is even resistance to equitization of part of an enterprise because this is perceived by workers in other parts of the enterprise to be giving preferential benefits to certain workers,
(9) the issue of preferential shares to certain key officials in the SOE is possible and this makes the SOE very unattractive to outside investors,
(10) there is no financial support for equitization - like the private sector, in general, there is little credit available, so workers and managers find it difficult to buy the shares allocated to them (even when offered at huge discounts).

In response to these obstacles government is developing plans to give increased support to equitization, such as using proceeds from equitization to pay for compensation and training to redundant workers, and for the development of business plans. Pilot schemes are being considered to base the valuation of assets more realistically and to establish a credit agency to enable equitized enterprises to invest more easily. It is common for the MOT to allow the equitization proceeds to be reinvested in the equitized enterprise (however, this merely dilutes state ownership and leaves it at a significant level rather than transferring it into private hands).

Other Issues

1) Lack of involvement of stakeholders

With the continuing high degree of centralization of policy-making and decision-making, the main way in which the MOT can seek the views of transport users is through normal political channels. There is scope for greater participation by transport users, both customers of transport services and providers of transport services in policy-making, planning and implementation.

This is clearly not a problem confined to the transport sector: The Deputy Prime Minister, Ngo Xuan Loc, at a meeting of senior state managers in Hanoi in August 1999, complained about the way that SOEs do not tell government, in the same way that joint ventures with foreign partners do, about ways in which government can help promote production.

Several important policy initiatives proposed in the VITRANSS study raise difficult implementation problems - for example, how to improve enforcement in traffic safety programs and how to raise more finance from transport users for maintenance of infrastructure. It is therefore vital for the MOT to gain broader support from transport users to enable difficult decisions to be taken more easily.

2) Effectiveness of technical assistance in institutional strengthening

The large scale of change in transport policies since reforms began in the 1980s has required a considerable institutional strengthening program to enable organizations and individuals to accept radically new responsibilities and working methods. In administration of the transport sector this has been a particularly challenging experience and numerous foreign-financed projects have either aimed at institutional strengthening goals within the sector, or have included institutional strengthening as part of other activities.
The range of institutional strengthening projects in the transport sector is summarized in Table 2.2 of the Inception Report, covering 18 main projects.

The scope of each main project is indicated in Table 2.1.3 below.

It is clear that the support for institutional strengthening has not been even though the sector: There have been no specific institutional strengthening projects within the railway, the aviation subsector or even in the ministry itself. Perhaps most seriously there appears to have been little assistance at provincial level.

Main areas of assistance have been legal reform, management systems, databases, and training. The pioneering study funded by the ADB encountered many institutional problems that apparently occur throughout the transport sector. However, many present projects are still at an early stage and the nature of the problems can be expected to change as circumstances in Vietnam change. This ADB project found that despite the existence of serious obstacles to institutional reform, significant changes could be introduced.

From discussions with a range of organizations in the transport sector, including recipient agencies, the following problems have occurred in trying to develop and implement institutional strengthening projects:

(1) constraints on human capacity to absorb recommendations, not surprisingly caused by lack of staff trained in modern management methods, with reasonable English ability,
(2) financial constraints, which frequently prevent much progress being achieved (especially after foreign consultants have left the country),
(3) resistance to accept recommendations (some Vietnamese staff attribute this to differences in cultural traditions between them and the foreign advisors),
(4) recommendations are presented badly, including voluminous manuals and reports which are hard to understand (not simplified to serve the needs of Vietnamese officials),
(5) recommendations ignore practical constraints in Vietnam (especially the need for other government agencies to accept the proposed changes)
(6) recommendations assume that implementation can take place far quicker than is possible,
(7) recommendations give far too optimistic implementation schedules (training programs to be completed in weeks when they may take months or more to establish),

Table 2.1.3
Summary of Main Areas of Technical Assistance in Institutional Strengthening

Aspect of Institutional Development	Main Technical Assistance Project	Scope of Assistance
Sector Management	No specific project. There have been many projects aimed at general administrative or specific policy matters (including CIDA Vietnam-Canada Policy Implementation Assistance Project aimed at environmental aspects). Some projects aimed at particular subsectors (e.g., roads) have also tried to cover the ministry.	Developing policy, legal framework and management information system
Roads Administration	ADB Institutional Strengthening of the Vietnam Ministry of Transport	Organizing and improving administration Assisting implementation of reforms Drafting legal documents Establishing a computer database
Railway Management	None	No specific project has yet focused on detailed institutional strengthening needs of railway.
Inland water administration	CIDA Vietnam-Canada Rural Infrastructure Inland Waterways Project	Commercializing VIWA operations Improving management systems and tools Providing operations support and equipment Implementing pilot projects of new market concepts Developing strategy for nationwide application of pilot results Community level infrastructure fund development
Maritime administration	CIDA Vietnam-Canada Maritime Project	Drafting legal documents Formulating maritime processes Providing training in law Assisting in the interpretation of international conventions and developing legal framework
Aviation administration	UNDP Civil Aviation Master Plan and French ODA project on legal development	Recommending institutional and legal changes
Provincial Transport Administrations	No significant projects apparently	Out of 14 provinces returning the VITRANSS provincial questionnaire, only one reported receiving any assistance from institutional development projects in transport (that one considered the project very helpful). However, most PTAs considered that inadequate local procedures and training were not major issues.

(8) lack of appropriate recommendations - in some cases recommendations are too theoretical and read like a description written outside Vietnam of standard practice in foreign countries rather than written in the country taking account of local needs,
(9) unrealistic expectations of institutional strengthening projects related to the previous point - good advice can only be given by spending a long time working in the country with good local counterparts,
(10) lack of a strong feeling of ownership by the local organization, perhaps because they have been insufficiently involved in defining the terms of reference and the work itself (to relate it sufficiently to local traditions), or because implementing authority lies elsewhere,
(11) lack of involvement of local consultants (to make best use of existing human resources, one important element of an institutional strengthening project is to build on the knowledge already existing in local centers of expertise, rather than build up expertise from scratch in new organizations),
(12) poor donor coordination, such as making exchange of reports, ideas and information easy for other projects working in a similar area (for example, the original English copies of reports are hard to find and it makes no sense to work back from the Vietnamese in view of the translation difficulties).

2.2 Objectives

In order to support the government's ongoing efforts to improve transport sector management and promote efficient transport services, the following institutional reform objectives are appropriate for overall sector management:

- strengthen policy-making and planning;
- improve lines of responsibility and authority for effective decentralization;
- complete the separation of oversight and commercial functions;
- improve monitoring and control of sector management;
- expand administrative capacity to implement funding and regulatory reform programs.

In specific terms, improving the basis for financing the provision of infrastructure is recognized as a major priority in the transport sector, both to provide sustainable maintenance and to allow development of the network. Improving cost-recovery from user charges is therefore one important institutional strengthening objective.

In addition, the government gives high priority to accelerating the equitization program in order to improve efficiency.

The following three sections describe the proposed strategies for general

institutional development of sector management, for improving cost recovery, and for equitization transport SOEs. Specific aspects concerning particular modes are analysed in further detail in Chapter 3.

2.3 Strategy for Institutional Development of Sector Management

Effective sector management requires better management systems focussed on core government oversight and infrastructure management functions, and better trained personnel. This is crucial for developing provincial transport in accordance with national policies.

The overall strategy required to achieve these objectives involves the following three elements:

(a) Enhancing Management Systems to promote Decentralization - requiring the following measures:

- organizational changes to ensure each organization has the appropriate authority and organization to fulfill its mandates in managing transport,
- definition of management systems and tools for required activities such as policy-making, planning, programming, financing and database handling,
- implementing these systems using guidance documents, monitoring and control mechanisms.

(b) Divesting Commercial Functions - requiring the following measures:

- separate regulatory and commercial functions,
- promote competition in supply of services (contracting of construction and consulting services).

(c) Human Resource Development - requiring the following measures:

- policy commitment by government to promote human resource development by a clear policy statement setting out goals and specific objectives,
- stronger training incentives (setting higher qualification standards for government personnel, for contracted consultancy and construction services)
- enhanced training capacity (better trained trainers, modern syllabuses, training aids and equipment)
- basis for financing (loans for training, ODA support)

The rationale for this strategy is that decentralizing decision-making should be more efficient (involving simpler administration and releasing senior staff for the more important strategic matters), divesting commercial activities should allow

these to be carried out more efficiently by the private sector under truly competitive conditions, and measures are required to tackle human resource constraints. This strategy is also realistic. The government is likely to have extremely limited resources to attract skilled management, for the foreseeable future. This implies that the present trend towards less but better qualified staff in MOT and its agencies will continue during the master plan period.

It follows that during the master plan period, continued divesting of MOT agencies as independent, self-financing units can be expected leaving only the core oversight functions and infrastructure management under the direct control of MOT. There will be a continued need for developing contractual relationships with external agencies during the master plan period (not only construction services, but also infrastructure maintenance, local planning/engineering consultancies and a variety of other services).

Under any scenario, training is central to institutional development. Under this assumed scenario, the strategy for training must take account of the need to create mechanisms for meeting training needs not only within government but also outside. While the need for direct government funding of training will be reduced, government can continue to have a powerful influence over human resource development by setting increasingly higher qualification standards for the services provided. In particular government can be expected to raise standards of:

- infrastructure construction and maintenance work performed by Vietnamese contractors, towards international standards,
- planning and engineering consultancy services offered by local companies
- a wide range of routine activities required for regulating transport safety, such as safety inspections of road vehicles (which can effectively done by licensed private workshops as planned by VRA).

Raising standards in this way will continue to give a powerful incentive for training and encourage increasing finance for training from the private sector (at least for specialist areas above the basic school levels). This in turn will reduce the need for government to finance specialist training and allow the MOT to concentrate on the training needs related to its core oversight functions.

Ways of implementing this strategy are discussed below.

Enhancing Management Systems

The need for enhancing management systems is particular acute at provincial level where little improvement has been made in recent years, preventing devolution of management powers to local level. Even at higher levels, where reforms have already been proposed and implemented, further reforms are necessary to deepen implementation.

Effective devolution and decentralization of transport sector management to provincial level requires

(a) clear policy direction from the MOT, based perhaps on a policy statement based on the recommendations of the VITRANSS and the Rural Transport Strategy studies,
(b) strengthening authority of MOT over the PTAs by increased powers of the minister to make appointments of PTA Director,
(c) production of mission statements for all provincial and subsector units responsible for mandates such as transport infrastructure management and transport/safety management, with approval coordinated within the sector to achieve a common approach with no overlapping responsibilities,
(d) development of new standardized systems for local transport planning, infrastructure maintenance management and financing, licensing, transport information collection and other local functions,
(e) implementation of new or revised guidance documents in all administrative areas, coordinated again at central level to achieve a consistent approach,
(f) review staffing requirements needed to fulfil the responsibilities defined in the mission statements and subsector agencies should draw up human resource development plans to meet future needs.

Specific ways in which this strategy should be implemented in the specialized departments of MOT (VRA, VIWA etc.) are described in the next chapter. Common themes are that:

(a) planning responsibilities should be clarified and organisations strengthened,
(b) the specialized departments should be strengthened in project implementation so that they can, in the long run, assume responsibilities presently given to the PMUs under the MOT,
(c) priority should be given both to strengthening maintenance of infrastructure and the way that it is financed,
(d) priority should also be given to improving the economic basis for regulation (justifiable technical standards and promotion of competition and efficiency),
(e) computer-based management information systems are required to give decision-makers adequate, reliable information at least cost.

Throughout the sector much further legislative reform is required to support these strategies (to define the legal basis of organisations and to establish a regulatory framework for transport services).

International experience suggests that there are many ways to organize ministerial responsibilities for transport (see Table 2.3.1). However in many cases, especially following market reform programs, weak transport sector management has hindered overall planning and regulatory oversight (see Appendix E for further details). The challenge for the Vietnamese government is to avoid such difficulties, and the VITRANSS approach has been to focus on how best to enable the MOT to perform more effectively its legally-defined mandates of

- transport policy-making,
- transport planning and evaluation,
- setting/ratifying national standards for transport infrastructure, transport means and equipment (for economic, safety and environmental reasons),
- directing and approving legislation,
- guiding and inspecting implementation of laws, policies, regulations and licensing.

Table 2.3.1
Ministerial Responsibilities in Various Countries

Country	Road		Railway		Inland Water		Sea		Aviation	
	Infra-structure	Trans-port	Infra-structure	Trans-port	Infra-structure	Trans-port	Infra-structure	Trans-port	Infra-structure	Trans-port
Russia	Yes/No	Yes	No	No	Yes	Yes	Yes	Yes	Yes/No	Yes/No
Kazakhstan	Yes	Yes	Yes	Yes	n/a	n/a	n/a	n/a	Yes	Yes
China	Yes	Yes	No	No	Yes	Yes	Yes	Yes	No	No
Mongolia	Yes	Yes	Yes	Yes	Yes	Yes	n/a	n/a	Yes	Yes
Philippines	No	Yes	Yes?	Yes?	n/a	n/a	Yes	Yes(1)	Yes	Yes(1)
Vietnam	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No

NOTE (1) Responsibility for policy-making purposes, while regulation is delegated to specialized organisations
SOURCE: Recent transport reports on various countries

Based on the findings described earlier, it is clear that the MOT needs to strengthen its capacity to guide subsidiary organisations in the way they formulate policies, plans and programs and issue guidance documents to agencies under their control. In so doing, the MOT can coordinate the way policy is implemented across the whole transport sector and achieve a uniform basis for regulating the transport sector and for managing the infrastructure under its control. This in turn will promote a more efficient and effective transport system.

In particular strengthening is required to establish a common approach to

(a) monitoring the sector, including assessment of capacity utilisation, of level of enforcement of regulations and of the competitive situation in main markets,
(b) updating traffic forecasts and revising the master plan and financial requirements in future years,
(c) refining the evaluation of transport programs (not only projects but also whole policies),
(d) economic regulation of transport to provide a level-playing-field (through pricing, subsidizing and taxation measures, to the extent that these are consistent with Ministry of Finance policies),
(e) developing the legal framework to set justifiable standards and regulate the various transport markets efficiently, taking increasing account of safety and environmental considerations.

Suggestions have been made in the past to concentrate these core MOT

functions into a single department, as a kind of command and control center, whereas at the present time these activities are split between four main departments (Planning and Investment, Science and Technology, Finance, and Legal and Transport). To this end the MOT concentrated previously separated functions for planning, capital construction, and statistics into the present Planning and investment Department. Such an arrangement can continue effectively provided that there is good coordination between departments. Unfortunately the MOT has weak capability in all these areas and so coordination is likely to remain problematic. At the same time, the Legal and Transport Department includes the two distinct functions of transport administration and legal administration.

The MOT has wanted to split the Legal and Transport Department into two for many years but this has always been refused by government, presumably because it would create too many general staff departments (ten instead of nine, which is already excessive in terms of number of reporting lines to the minister). An alternative approach would be to transfer the transport administration function of the Legal and Transport Department to the Planning and Investment Department. This would further consolidate the Planning and Investment Department and reduce coordination difficulties. It would allow a Legal Department to be established which could concentrate purely on giving advice on legal matters.

Other organizational changes which are recommended are:

(a) combining the ASEAN and International Department to avoid duplication of functions and reduce the number of reporting lines to the minister,
(b) rationalizing the relationship between MOT and its non-business organisations to reduce reporting lines and to make a clear distinction between ministry activities and independent consultancy activities - either divesting them as independent self-financing training/consultancy units, or incorporating them within the ministry (as discussed further below),
(c) establish, in the short-term, two full-time units responsible for developing and implementing (i) the government's rural transport development plans and (ii) its equitization plans,
(d) in the long-term, giving MOT responsibility for aviation oversight by placing CAAV under the ministry, once MOT has acquired the means to perform this function adequately,
(e) upgrading the MOT database system to give all the information required for policy-making,
(f) introducing new management systems for project and policy evaluation (to allow trade-offs between maintenance and construction, and between investments in different modes, and to take account of network effects such as those between provincial and national networks) - based initially on the VITRANSS model,
(g) introducing a project and policy implementation monitoring system which

allows MOT to assess progress and overall effectiveness of decisions taken, especially in key areas such as safety,

(h) introducing a financial management system which enables the MOT to assess and monitor costs of transport and efficiency levels, and identify where distortions caused by subsidies or other interventions occur,

(i) introducing the legal changes required to implement these reforms, including a revised version of Decree No. 22-CP defining the tasks, powers and responsibilities of MOT, a possible umbrella law for transport, and numerous guidance documents or circulars to enable coordination between agencies (within the transport sector, between central government and provincial government, and between MOT agencies and agencies under other ministries - especially circulars between MOT and the Ministry of Police and Ministry of Rural Development, who can supply important transport monitoring information to MOT; and MPI, Ministry of Finance and Ministry of Trade whose policies impact greatly on transport).

This requires more staff with wider experience and greater skills, especially in use of modern planning techniques, database management, transport economics, finance, and law. It is therefore recommended that MOT seeks assistance in assessing current staff capabilities and defines a human resource development plan that supplies the required staff through external recruitment and training.

Divesting Commercial Functions

MOT's subsector agencies continue to manage commercial transport businesses, especially in VRA. Even more transport businesses are managed by the provinces. The conflict of interest caused by the continued presence of these commercial functions distorts implementation of regulatory policy, especially at provincial level (for example by PTAs seeking ways to support SOE transport operators through higher fares instead of supporting the interests of lower fares for transport customers). Therefore equitization of these SOEs is a high priority (see the next section for further discussion on the equitization program).

Infrastructure Construction and Maintenance

Efficiency in the construction and maintenance of infrastructure can be increased by promotion of competition in the transport construction and maintenance industry. The construction companies in the transport sector are mainly still SOEs grouped within corporations under MOT. Many SOEs engage in activities outside their original scope - both geographically and in terms of mode of transport - and joint ventures commonly involve cooperation between SOEs within and between construction corporations. This healthy competitive situation can be enhanced further by giving high priority to equitizing the construction SOEs and allowing the transport construction industry to consolidate and develop further.

In the infrastructure maintenance industry the competitive situation is less

developed. Most maintenance SOEs have been established as public interest enterprises which are not expected to be equitized, but rather expected to continue as in-house units of the subsector infrastructure management organisations. Until the status of maintenance SOEs is changed from public service to business, increasing competition in maintenance services is therefore very limited. Once the maintenance SOEs are commercialized, certain tasks such as large repairs that can be clearly defined and controlled through a contracting mechanism could be carried out more competitively.

According to government plans, transport construction SOEs can be expected to be equitized, whereas maintenance SOEs are expected to remain as in-house units (as public interest SOEs, with limited scope for further devolution of responsibilities and for increasing incentives for maintenance management). The construction SOEs, grouped under autonomous state corporations, are usually already separated from the subsector infrastructure management agencies and there is competition for contracts (awarded to the corporations who then allocate work to the SOEs).

However the basis for competition and quality of construction work could be improved by raising qualification standards, making the construction organisations even more independent of government and making sure that SOEs with tax concessions (such as those given to public interest SOEs) do not undermine the level-playing-field concept. There are severe bottlenecks in the maintenance industry, often connected to lack of finance and this increases debt.

It is recommended that, to increase competition and efficiency in infrastructure construction and related fields such as planning and engineering consultancy,

(a) high priority is given by MOT in the short-term to equitizing the construction SOEs (transferring the responsibility for representing the residual state ownership interests from MOT to the General Department for Management of State Capital, to make a clear separation between the MOT's interests as customer of construction services and its ownership interests in the business),
(b) infrastructure maintenance SOEs are redefined as business SOEs (instead of public interest SOEs) to increase management autonomy and incentives,
(c) subcontracting maintenance work wherever suitable, with proper financing,
(d) raising, step-by-step, the qualification standards for SOEs entering the bidding processes, to increase training incentives and local industry standards (in the long-term, to increase the share of internationally-financed construction work performed by Vietnamese companies and build up their capacity to work abroad)
(e) establishing equipment leasing organisations to supply equipment on a self-financing commercial basis (for further details see the section on equitization below),
(f) non-business training, consultancy and other similar units should be established as independent self-financing units.

Other Services

Apart from equitizing construction, maintenance and other SOEs as described above, there is scope for further divesting of public service SOE units that perform activities that could be placed on a more commercial basis. For example, safety inspections of road vehicles can be carried out by private workshops and inspectors who are licensed to perform these inspections. Under this approach, government continues to set and to monitor standards. However the costs of inspections, including the investment costs in facilities and equipment, are fully born by the private sector and paid for by users.

It is recommended that, in the long-term, the units performing the following activities are divested from their parent organization, to operate on a commercial basis:

(a) road vehicle inspections by private workshops (as proposed by the ADB institutional strengthening project for MOT/VRA),
(b) ferry services currently provided by four groups under the RRMUs,
(c) pilotage services provided by VINAMARINE,
(d) airport service management (ground services and supply services)

In addition it is recommended that specific services should be delegated to other organisations where they can carry out tasks more efficiently - for example inland ports can collect waterway fees more efficiently than employing VIWA staff at each port (as proposed by the Canada CIDA institutional strengthening project).

Human Resource Development

The training needs for institutional strengthening of transport sector management cannot be considered in isolation from the training needs for the transport sector as a whole. Many of the skills required from people working in transport in central or local government will be the same as those required from those working outside in the transport industry or in consultancies and research institutes that serve government. To perform the state function of infrastructure management it is necessary to rely on external contractors for construction and maintenance.

The human resource development needs in the transport sector can be defined in terms of:

(a) government agencies concerned with transport sector management (MOT, its subsector agencies, provinces, districts, other ministries with an interest in transport such as Ministry of Police, MPI etc.),
(b) support agencies who work under contract to these government agencies, offering advisory/consultancy services,
(c) the transport industry (transport operators, including operators of ports, airports and passenger/goods terminals)
(d) support organisations (infrastructure construction and maintenance, equipment maintenance/repair, freight forwarders/agents)

The types of staff and required skills are indicated in Table 2.3.2.

Assessing the training needs of sector management ideally requires, in the first instance, an assessment of future institutional strengthening needs throughout the transport sector, taking account of the future functions undertaken by each organizational unit, required staff and qualification levels. Although a start has been made at assessing these needs in the subsector agencies, relatively little has so far been achieved at provincial/district level and within the MOT and its support agencies. Even so, past assessments of training needs have been able to highlight priority areas and approximate resources required.

Assessing training needs of the transport industry and support organisations in practice can only be approximately estimated because they cover such a wide range of fields and includes much in the private sector. Most of this training has to be financed from the staff or their employees, and the extent to which they pay for training is particularly difficult to estimate. Therefore training needs must be based on surveys, of representative parts of the sector, of likely skill deficits, taking account of future operating standards and technological conditions and the attitudes towards training. Trends in training outputs in training institutes also provide a useful indicator.

Some recent initiatives have tried to correct this situation: for example (i) the survey recently launched by MOT to assess the existing employment situation in the transport sector, and (ii) the report prepared by Vietnamese Railways (VR) on the Renovation of Management and Business Work in the Railway Sector (1998) which outlines VR policy on developing human resources up to 2020 and includes the breakdown of employees required by broad categories (post graduates, engineer schools graduates and vocational schools graduates, skilled and unskilled workers).

In order to allow approximate estimates of future training needs to be made, currently available information has been assembled in Appendix F. This appendix also includes details of main training institutions in transport.

Based on past studies of training needs described in Appendix F, the extent of future training needs can only be hinted at because there are no clearly defined qualification standards for future needs, nor much idea about how much training existing people need to achieve those standards. The private sector needs are generally ignored. In the case of the MOT and its subsector agencies, even the job specifications required in future years have not been defined in detail. However existing estimates by MOT and past consultancy studies do indicate the numbers of people who need some sort of training. These are shown in Tables 2.3.3, 2.3.4 and 2.3.5, by type of personnel.

Table 2.3.2
Scope of Human Resource Development Needs

Type of Organization	**Type of Staff**	**Main Types of Skill Required**
(a) Sector Management		
MOT and its agencies	Senior policy-makers/decision-makers	Interpretation/judgement of information, some specialist knowledge and knowledge of administrative systems
	Specialists	Knowledge in particular fields such as engineering, planning, economics, statistics
	Other administrators	Basic technical knowledge and knowledge of administrative systems
Provinces, Districts	Senior Administrators/decision-makers	Interpretation/judgement of information and knowledge of administrative systems
	Specialists	Knowledge in particular fields such as engineering, planning, economics, statistics
	Administrators	Basic technical knowledge and knowledge of administrative systems
Research institutes, consultancies etc.	Researchers/specialists	Knowledge in particular fields such as administration, engineering, planning, economics, statistics
(b) Transport Industry		
Transport service providers	Managers	Market judgement, laws/regulations, business management, management systems
	Skilled staff	Particular skills required for operational/ maintenance/administrative systems, regulations
Facility managers (ports etc.)	Managers	Market judgement, laws/regulations, business management, management systems
	Skilled staff	Operational/ maintenance/administrative systems, regulations
(c) Support Organisations		
Infrastructure/maintenance construction	Managers	Market judgement, laws/regulations, business management (contracting techniques, costing systems etc.)
	Skilled Staff	Operational/ maintenance/administrative systems, regulations
Equipment maintenance/repair	Managers	Business management, regulations, business management, technical knowledge
	Skilled Staff	Maintenance systems, technical skills
Freight forwarders etc	Managers	Business management, laws/regulations

Table 2.3.3
Demand for Training - Transport Sector Management

Type of Organization	**Type of Staff**	**Number of Staff**			**Type of Training**
		Number in Post	**Number needing Training**		
			2000-2005	2005-2010	
MOT and its agencies	Senior policy-makers/ decision-makers	296	45	45	English, Policy analysis, Planning methods. Principles of regulation/management/economic/ financial evaluation/analysis, Personnel management, International law/practices, MIS
	Specialists	1,860	540	540	English, Policy analysis. Planning methods. Regulation principles. Project preparation/ implementation, Economic/financial analysis, Planning methods. Project management, Procurement, Data processing, MIS Infrastructure maintenance management, Operations planning/management. Environmental/safety issues
	Other administrators	868	252	252	Methods of planning/evaluation, data processing, administration
Provinces, Districts	Senior Administrators/decision-makers	104	30	30	English. Policy analysis. Principles of regulation/management/economic/ financial evaluation/analysis. Planning methods. Project management, Infrastructure management, Personnel management, Laws and regulations, MIS, Environmental/safety management
	Specialists	1,140	376	376	English, Regulation principles. Project preparation,/implementation, Economic/financial analysis, Planning methods. Project management, Procurement, Data processing, MIS Infrastructure maintenance management, Operations planning/management. Rural transport. Environmental/safety issues
	Administrators	532	175	175	Methods of planning/evaluation, data processing, administration
Research institutes, consultancies etc.	Researchers/specialists	n/a	n/a	n/a	English, Planning methods. Policy Analysis. Regulation principles. Project preparation,/implementation, Economic/financial analysis, Project management, Procurement Data processing, MIS Infrastructure maintenance management, Operations planning/management. Rural transport. Environmental/safety issues
ALL		4,800	1,418	1,418	

SOURCE: Based on MOT training requirements, 1995 (See Appendix F)

Table 2.3.4
Demand for Training - Transport Industry

Type of Organization	Type of Staff	Mode	Number of Staff			Type of Training
			Number Employed	Number needing Training		
				2000-2005	2005-2010	
Transport Operators						
	Executives	Road	640	n/a		Costing, pricing, operations planning, fleet planning, financial analysis/planning, computer applications, laws and regulations, safety
		Inland Water				Costing, pricing, operations planning, fleet planning, financial analysis/planning, computer applications, laws and regulations, safety
		Railway				Marketing, costing, pricing, operations planning, fleet scheduling, financial analysis/planning, computer applications, MIS, laws and regulations, personnel management, logistics, containerization
	Managers	Maritime	1,360	n/a		Planning, evaluation, marketing, costing, pricing, operations planning, fleet scheduling, port operations, goods handling techniques, financial analysis/planning, computer applications, MIS, laws and regulations, personnel management, multimodal transport, logistics, containerization
		Aviation				Planning, evaluation, marketing, costing, pricing, operations planning, fleet scheduling, airport operations, financial analysis/planning, computer applications, MIS, laws and regulations, personnel management, logistics, containerization
	Engineers		2,480	1,240	1,240	Maintenance systems, workshop safety and regulations, inventory control
	Technicians		3,980	1,980	1,980	Maintenance programs, safety procedures
	Skilled Staff		17,400	8,700	8,700	Driving/navigation skills, customer relations, goods handling, laws and regulations, characteristics of vehicles/vessels, international aspects, safety issues
ALL			25,860	11,920	11,920	

SOURCE: Appendix F

Table 2.3.5
Demand for Training - Support Industry (MOT Only)

Type of Organization	Type of Staff	Number of Staff			Type of Training
		Number Employed	Number needing Training		
			2000-2005	2005-2010	
Infrastructure/maintenance construction	Executives	512	n/a	n/a	Costing, pricing, contracting, business planning, financial analysis/planning, MIS, laws and regulations, personnel management
	Managers	1,088	n/a	n/a	Costing, pricing, planning, equipment management, financial analysis/planning, computer applications, MIS, laws and regulations, personnel management, logistics
	Engineers	1,984	992	992	Design, traffic engineering, pavement/track design/maintenance, soils and materials, contract documents, measurement and estimation, bridge design/construction, foundations, other structures
	Technicians	3,160	1,584	1,584	Surveying, soils/materials testing, inspection of earthworks/structures/pavements, draughting, drainage design
	Skilled Staff	13,920	6,960	6,960	Operating equipment, maintenance of equipment, piling, concrete works, brickwork and masonry, bridge construction, pier construction, drainage construction
	TOTAL	20,664	9,536	9,536	
Equipment maintenance/repair	Executives	448	n/a	n/a	Costing, pricing, contracting, business planning, financial analysis/planning, MIS, laws and regulations, personnel management
	Managers	952	n/a	n/a	Costing, pricing, planning, technical specifications, equipment management, financial analysis/planning, computer applications, MIS, laws and regulations, personnel management, logistics
	Engineers	1,736	868	868	Characteristics of equipment, maintenance systems, workshop systems and safety, inventory control, laws and regulations
	Technicians	2,760	1,386	1,386	Characteristics of equipment, maintenance procedures, workshop procedures, safety regulations
	Skilled Staff	12,180	6,090	6,090	Work procedures, safety rules
	TOTAL	18,076	8,344	8,344	
Freight forwarders etc.	Manager	n/a	n/a	n/a	Business planning, marketing, costing, pricing, financial analysis/planning, MIS, laws and regulations

SOURCE: Appendix F

The training institutes currently able to offer training in transport are also shown in Appendix F. As described earlier in this chapter, the graduate/post graduate institutes can generally only offer poor quality, out-of-date training in transport. To provide the needed training for transport sector management there is a need, in the Hanoi University of Transport, VIMARU and ITECSOTS, for

- retraining of teachers,
- reform of curricula,
- upgrading of textbooks,
- upgrading of reference materials, and
- improved availability of modern teaching aids (hardware and software).

There are few institutes able to offer courses on modern management aimed at the needs of the transport industry. This is an area where several institutes can develop courses, probably specializing in different markets and modes. For example the railway technical vocational school offers retraining courses on railway management aspects such as accounting and financing. The ITECSOTS has already begun to offer courses on transport economics and business administration. Similar requirements apply as for improving the sector management training.

Other training for transport industry non-managerial staff is currently provided by the Technical and Vocational Schools listed in Appendix F. They are supply-oriented rather than demand-oriented and tend to specialize in particular modes. Much of the training is too theoretical in nature since there are few facilities for practical training. The trainers lack knowledge of modern technology and market economic principles. Past studies have stressed the importance of train-the-trainer courses and have proposed huge investments, but these proposals have apparently not been accepted by government. Until higher qualification standards are demanded in the transport sector, with commensurate rewards for high achievers, incentives for better training will remain low.

Based on past studies and our assessment of future demand and existing training capacity, the following strategy is proposed for transport training:

(a) in the short-term the MOT renews its commitment to human resource development in the transport sector by a clear policy statement which sets out the goals and specific objectives including (i) increasing training incentives such as higher minimum qualification standards for MOT staff based on its future needs, and higher qualification standards for contractors where justified, (ii) increasing training opportunities through reorienting training programs to serve modern needs,

(b) in the short term, the MOT strengthens the Labor and Personnel Department to assess the human resource development needs, and to develop policies and specific strategies, including a training plan for the MOT and its related agencies, based on an institutional reform study which identifies the number and qualifications of future government personnel in transport sector

management (central and local levels),

(c) as part of the human resource development plan, based on the forecast increase in qualification standards for contractors and other developments, an indicative estimate should be made of training needs of the transport industry and support industries (state sector and private sector), giving clear training priorities for the medium- and long-term,

(d) it is recommended that potential users should be involved in defining the training plan in order to identify real needs and assess private sources of finance (the extent to which training can be self-financed by the transport industry),

(e) the MOT should identify those areas, such as training of government personnel or basic education, where government finance is justified, and seek the training in the most cost-effective way, by upgrading the training institutes and make them demand-oriented,

(f) in particular, the MOT should work with the Ministry of Labor to define more relevant, modern nationwide standards for technical training and apply these in the vocational and technical schools,

(g) the MOT should seek international assistance in those areas where local expertise is particular lacking, for example in commercial aspects of transport business management, and in modern transport planning and economics aspects and the Labor and Personnel should improve cost-effectiveness of ODA-funded training by coordinating such training activities so that they can benefit a broader range of people (by making seminars and courses open to staff not directly involved in particular projects),

(h) where it is necessary to raise qualification levels and training standards towards international levels, the government should seek ODA support through train-the-trainer courses, upgrading of basic training capacity and overseas training in specialist areas,

(i) to minimize training costs, the MOT should in the long-term establish its training institutes as independent self-financing units and satisfy its own training needs at least cost through contracts and fees paid for specific courses at the institutes able to offer these at least cost,

(j) and to increase access to training, especially among the poorer sections of the community, the MOT should assess the feasibility of establishing scholarship or student loan schemes.

2.4 Competitive Environment for Transport Services

To put in place a regulatory framework which promotes efficient transport services and allocation of traffic to modes, while meeting safety and environmental concerns, requires a strategy which has the following objectives:

- to establish a business environment in which, as far as possible, transport customers are free to choose between competing services, transport operators are free to supply services in accordance with demand, and prices

are set by market forces without distortions by unjustifiable controls, subsidies and other interventions by government;
- to set and enforce justifiable minimum safety and environmental standards;
- to raise the efficiency of state enterprises by giving them greater incentives;
- where state transport assets can be more efficiently used by the private sector, to transfer these through the equitization program;
- to protect the interests of socially or economically disadvantaged groups through carefully targeted support which encourages efficiency and minimizes costs.

To support government policies and the ten-year master plan, the following regulatory strategy is proposed:

1) Foster competition and entry of new operators into the sector, subject to justifiable minimum safety and environmental standards

   Greater competition is needed in supply of transport services to offer better services to customers at least cost. This requires high priority to be given to developing and implementing the legal framework in accordance with economic principles of market regulation.

   Most transport subsectors are inherently competitive, in which supply and demand can be balanced efficiently by a regulatory framework that limits entry controls to those required to meet minimum safety/environmental standards and removes price controls and distortions caused by subsidies, import controls and other interventions. Such conditions generally apply in Vietnam even for such traditional monopolists as railways because the latter is subject to competition from other modes. Even for aviation and sea transport, where high entry costs can inhibit new entrants, it is possible to minimize entry costs through chartering or leasing. Only for provision of urban public transport, ports, airports and similar fixed facilities is there an obvious need to control, in the long term, prices of transport services in order to control monopolies.

   It follows that the legal framework should be developed and implemented based on the principles of limiting entry barriers to those justified on safety/environmental grounds and removal of price controls. This often involves simplifying licensing procedures, removal of unjustifiable or discretionary licence conditions and transport price controls. Safety standards should be reviewed, taking into account cost effectiveness as determined by transport safety programs aimed at achieving the greatest benefit at least cost to the country, after allowing for a realistic level of enforcement. Due account also has to be taken of standards agreed to under international protocols.

   In the case of urban bus transport, ports, bus terminals and other fixed facilities, the competitive situation should be monitored and appropriate price

controls applied if needed (including the possible need for franchising arrangements where competition in the market is replaced by competition for the market, for example through some sort of competitive tendering).

2) Adoption of economically sound pricing and cost recovery policies

In accordance with government policy, the price of transport should reflect its underlying cost except where this is to be subsidized for social or other reason.

The government's policy on cost recovery of non-revenue-earning public infrastructure such as roads and inland waterway has been based on a principle of minimum level of cost recovery:

- users should pay through taxes or charges at least the variable costs of operation and maintenance, and make a contribution towards fixed costs, with government paying the balance,
- investment should be funded from the state budget and financed from either general revenue or infrastructure-specific revenue.

Policy towards revenue-earning state infrastructure and service organisations such as the railway, ports and airports, has been similar:

- users should pay through charges at least the variable costs and make a specific contribution to fixed costs, with government paying the balance
- investment should in principle be funded internally or, if state assistance is necessary, from reimbursable state credits (not from the budget)

Wherever possible, user charges should take account of the costs incurred by different users - so heavier road vehicles or larger water vessels should pay for any additional costs that they incur above those incurred by smaller vehicles/vessels. Furthermore, in the long run, because of the shortage of investment funds, it is necessary to seek ways to make each mode of transport self-financing through user charges[1]. If possible these charges should not distort decision-making by making variable charges much greater than variable infrastructure costs.

Roads

The World Bank has made a variety of estimates for future road user charges assuming different approaches. The total cost of maintaining the national, provincial, district and urban road network amounts to US$ 190 million per

[1] Including the cost of developing the network where this is justified in economic terms. In practice there are strong arguments against making users pay the full development costs of infrastructure (especially public facilities such as road and waterways), because indirect benefits accrue to non-users. The VITRANSS therefore assesses the minimum required level of cost recovery from users, in the long-term, based on infrastructure maintenance costs, excluding development costs.

year (including US$ 50 million in variable costs). Present maintenance expenditure is less than this (only about US$ 80 million, although there is uncertainty about the exact figure). Assuming that local authorities make a contribution of 20% of fixed maintenance costs (100% in urban areas), the World Bank recommends that total funds required to pay for all variable costs of road maintenance and remaining fixed costs should be raised from a combination of fuel levies and an axle weight fee. To balance contributions between different road users (and to encourage heavy vehicles that minimize damage to roads), the optimum charges for the above assumptions would be

- US$ 0.05 (VND 700) per litre of diesel fuel,
- US$ 0.07 (VND 1,000) per litre of gasoline, and
- an annual axle load fee of $98 per Equivalent Standard Axle (equivalent to US$ 120 (VND 1.7 million) for a medium truck and US$ 490 (VND 6.9 million) for a tractor-trailer)

Details of the costs and expenditure are given in Technical Report No. 3 on Transport Costs. At present the equivalent of only about VND 250 per litre of fuel is allocated to road maintenance (the present fuel levy is VND 300 for diesel and VND 500 for gasoline, but most diesel is consumed by non-road users). Therefore funding future required maintenance requires careful financial planning, taking account of the impact on non-road users such as agriculture, industry and the railway (which would have to be compensated for through rebates or other means). The World Bank recommends that initially a road fund is established to manage finance on a commercial basis, receiving just VND 250 (US$ 0.018) per litre of fuel consumed in Vietnam, in order to fund expected short-term levels of road maintenance (US$ 90 million per year based on 1997 total fuel imports). The axle weight fee should then be introduced gradually, generating up to a further US$ 18 million per year, before making gradual increases in the fuel levy (up to about double the present level, while introducing compensation schemes for non-road users). Under this scenario, the fixed cost of maintaining provincial and district roads funded by local government would amount to a further US$ 34 million. Costs of road construction, rehabilitation and maintenance backlog would all be additional costs which require financing.

As summarized in Table D.1 in Appendix D, other distortions in competition in road transport include tariff controls on trucks in mountainous areas, and inadequate payment by road users for accident costs imposed on others. Inadequate cost recovery of some non-urban SOE bus operators could also lead to distortion if government attempts to intervene with fares controls to support the SOEs. These issues are discussed in more detail in the section on roads in next chapter.

Inland Water Transport

A similar approach to infrastructure cost recovery is recommended for inland

water transport, using registration and water channel fees to achieve full recovery of maintenance costs in the long-term, taking account of the contribution made by users through fuel taxation. Since inland water and shipping share the same infrastructure, an appropriate basis for sharing the costs would have to be developed. It is recommended that ships pay fully for the dredging and navigational aids along rivers that are designed for ship use (essentially the three rivers serving Haiphong, Saigon and Can Tho ports which are managed by VINAMARINE plus any other rivers that are upgraded in future to carry large ships). Most waterway infrastructure costs are fixed so there is no compelling economic reason to finance infrastructure from charges that vary with use made of the waterways. Rather, fixed annual charges per hp or per tonne of capacity would be more appropriate (extending even to sea-going vessels that wished to use rivers maintained by VIWA) - with the option for monthly rather than annual charges to be levied for ships that do not regularly use the waterways.

In practice inland water users pay a substantial sum through diesel fuel taxes to the State Budget and this is bound to continue. The collection costs of inland water fees are very high according to VIWA (similar to the amount of money raised in some cases), so it is recommended that the main source of revenue from water transport users should continue to be the State Budget with additional charges levied only for specific services with clearly defined additional costs (provided it is financially efficient to collect them).

According to VIWA, total annual Operation and Maintenance expenditure on the centrally-maintained network of 6,200 km of waterway (including maintenance dredging, maintenance of navigational aids and administration) was about US$ 7.3 million (VND 80 billion) per year in 1997 (equivalent to about US$ 1,200 per km). Future maintenance costs will increase because of increasing depth of dredging and expansion of the provincial/district network. It is estimated that according to the planned network development the annual maintenance expenditure will increase to US$ 15.9 million in 2010 (assuming annual maintenance costs of US$ 1,000 for Class C provincial/district rivers, and US$ 1,200 and US$ 1,500 per km respectively for non-upgraded and upgraded Class A and B national rivers). If 20% of the provincial waterway maintenance cost is funded from local sources (as assumed for roads above) then the total central funding requirement is about US$ 14 million in 2010.

Present revenue from waterway users is about US$ 8 million (including US$ 7.5 million from the fuel levy of VND 300 per litre, plus minor contributions from the tonnage fee and the procedure fee), which covers existing maintenance costs. VITRANSS estimates interprovincial river traffic growth of only a factor of 1.15 from 2000 and 2010. Assuming similar growth for intraprovincial traffic this would imply future revenue of only about US$ 9 million in 2010. However assuming that the traffic fee increases as anticipated

for roads, the waterway users should contribute enough to cover the maintenance costs of the infrastructure[1].

To implement these proposals, it is recommended that financing of waterway maintenance is placed on a commercial basis, similar to the road fund proposed for road financing. In fact the proposed road fund could be established as a transport fund with a remit to manage maintenance funding of both modes of transport. In 1997 a fuel levy of VND 27 per litre on the 3,029 million liters of imported diesel would have raised the VND 80 billion spent on waterway Operation and Maintenance, representing only about 10% of the initial proposed fuel levy for the road fund (VND 250 per liter as described above).

Ports and Shipping

Total expenditure on maritime infrastructure maintenance (VND 158 billion for maintenance dredging and maintenance of navigation aids in 1998) is more than covered by revenues from the maritime safety fee, which generated VND 165 in that year). The port authority (ship inspections and administration) and pilotage activities generate significant surpluses. However charges for using maritime waterways (mainly the three main rivers used by sea-going vessels) vary substantially between those for ocean shipping and coastal shipping - the tonnage and maritime safety fees for the latter are VND 200/GRT (per ship call) and 200/GRT (charged both in and out, for vessels less than 2,000 GRT) whereas for ocean shipping they are US$ 0.1/GRT (per ship call) and 0.25/GRT (both in and out). In other words coastal shipping pay overall as little as 7% of the ocean-going charges. Although coastal shipping may perhaps cover the variable element of maintenance cost, it is certainly not making a significant contribution to fixed costs. To this extent there is a subsidy to coastal shipping, although as shown in Table D.4 in Appendix D the distortion is not very large. However this distortion will increase in future as the share of coastal shipping using Vietnamese ports increases from the present 15% to 26%.

In future, the maintenance dredging cost is expected to increase due to the greater planned depth of channel and greater required dredged volume from about VND 60 billion (US$ 4.3 million) in 1998 to about VND 112 billion (US$ 8.0 million) per year in 2010 (an increase of VND 52 billion). Assuming the navigation aids maintenance cost increases by the same amount due to improved navigation systems, this implies an increase in infrastructure maintenance cost of 87% from VND 158 to 276 billion per year. If coastal

[1] If full recovery of maintenance costs is not achieved from the fuel levy, consideration would have to be given to raising user charges. If so, account should be taken of the fact that most of the increased maintenance costs are attributable to the increased dredging requirements of larger vessels, which should therefore pay most of the additional costs.

shipping pays the same charges as international shipping, no increase in tonnage and maritime shipping fees is required - revenue would increase in proportion to traffic (by a factor of about 83% allowing for the additional revenue paid by coastal shipping).

However if coastal shipping continues to pay only 7% of the international charges then charges would have to be increased - for example to raise enough revenue from the maritime safety fee to cover infrastructure costs of VND 276 million in 2010 would require an increase in charges of 20%. However the maritime safety fees in Vietnam are already considered excessive by international shippers (together with tonnage fees they are more than twice those pertaining in Bangkok). Such high charges adversely affect Vietnam's trading position. Therefore it is recommended that, to avoid the need to increase charges and to establish a level playing field for transport within Vietnam, the differential between coastal shipping and ocean-going shipping is abolished in the short-term.

Port charges, set by government, do not take full account of the differences in costs between ports so the extent of operating cost recovery differs between ports. For example the operating ratio (expenditure divided by revenue) varies from 0.84 in Haiphong to 0.94 in Quang Ninh. It is recommended that port charges are based on costs at each port and investment financed through loans on commercial terms (either using state budget funds or commercial credit). This would put state ports on the same financing basis as private ports.

Railway

Railway passenger and freight revenue, overall, covers current operating costs and makes a contribution towards the cost of infrastructure (an agreed payment of 10% of revenue). The extent to which passenger and freight each cover their costs cannot be estimated because the accounting system does not allow a clear distinction to be made. As shown in Appendix D-3, the railway receives substantial financial assistance from the government - about VND 200 billion net subsidy after allowing for infrastructure costs borne by government, exemption from capital charges and fuel levies paid by the railway. Most of this arises because the railway's infrastructure payment only covers part of the infrastructure cost, with government paying the balance (about 65% of infrastructure cost, representing 17% of total railway operating and maintenance costs in 1997 and 1998). The ratio of infrastructure investment to total operating and maintenance costs was about 20% in 1998 (half from the state budget, half from ODA funds).

Between 1994-95 and 1998 passenger fares increased by 40% (from VND 165 to 170-214 per passenger km for standard services, much more for luxury services and for foreigners, who pay about double). The average

revenue from passenger (including baggage) services in 1998 was VND 222 per passenger km, similar to revenue earned on other railways. However, as described in Technical Report No. 6 on the railway, the cost of renovating the railway will increase cost of services even higher, and standard fares are about double those of the bus. Therefore although demand has increased in recent years, there may be little scope for increasing fares except on longer routes in conjunction with faster trains. The expected removal of the fare premium paid by foreigners will make it even more difficult for the railway to raise average earnings. Unless efficiency can be increased, higher passenger fares or subsidies seem unavoidable.

Average freight charges doubled between 1994-95 and 1998 (from VND 226.6 per tonne km in Union 3 to VND 180-500 per tonne km in VR). The average freight revenue earned by the railway in 1998 was VND 279 per tonne km. This figure is only US$ 0.02 per tonne km and is low compared to railways in other countries. Although the increase in tariffs has improved cost recovery it has probably contributed to the current trend of steadily declining freight traffic and so it is by no means clear how viable freight traffic is. Clearly lower costs and better services, assisted by better infrastructure, are important to secure the future of freight traffic too.

Some indicators of railway efficiency (such as locomotive utilisation and staffing ratios) indicate that efficiency could be improved. It is recommended that the future prospects of the passenger and freight businesses are assessed in order to determine the viable operations which can potentially finance both operations costs and either the variable or fixed infrastructure maintenance costs. This would assess scope for efficiency improvement and service development, and identify:

- those services which do not cover even operating and variable maintenance costs and need operating subsidy from government if they are to continue (these are likely to include some rural passenger services and small consignments of freight),
- those services which do not cover full infrastructure maintenance costs and need subsidy of part of the infrastructure costs to continue (perhaps most passenger and freight services fall into this category),
- lines which government does not wish to continue subsidizing and which should be closed (some low trafficked lines which do not make a net contribution to network viability).

Even after improving the accounts to separate passenger and freight costs, it will be difficult to allocate track and other joint costs between the two businesses. If one business or service is inherently less profitable than another it may be appropriate to allocate track costs on an incremental basis - allocating to the less profitable service only the additional infrastructure costs required to operate its trains (such as passenger or freight stations, and any

extra signaling). An example of the type of analysis which will be possible in future is given Section 3.2. According to the assumptions made in this analysis (which would have to be confirmed in future with much better cost and market data), average freight tariffs would have to increase by 40% if the railway is to continue to pay its infrastructure charge of 10% of revenue to the government. Less increase in passenger fares is anticipated but, with the removal of higher fares for foreigners, significantly higher fares for Vietnamese are likely. Increasing the infrastructure payment to, say 20%, would raise fares and charges by at least a further 10% (probably much more in practice to allow for loss of traffic following the increase in charges).

It is clear from this simple analysis that achieving cost recovery for the railway in future will be difficult and that future investments must be carefully evaluated to ensure they enhance the financial viability of the railway. Consideration should be given to altering the basis for the infrastructure charge from the present charge (based on a proportion of revenue) to a combination of a fixed charge plus a smaller variable element. This would reflect better the nature of infrastructure costs (most of which are fixed) and encourage better use of the infrastructure.

Aviation

Cost recovery in airline services is greatly distorted by the higher fares charged for foreigners (set by a decision of the Prime Minister), causing a cross subsidy from foreign travelers to Vietnamese travelers of about US$ 30 million per year (see Table D.5 in Appendix D). It is understood that this practice is to be phased out in the short-term under regional trade and transport agreements that the Vietnamese government is entering into. This will tend to increase fares for Vietnamese air travelers although the extent to which this occurs could be minimized by developing of more flexible market-based fare structures.

Fares on short distance domestic air services do not apparently cover their costs, being mainly cross-subsidized by international services (see Table D.5 in Appendix D, based on cost estimates in Technical Report No. 9 on aviation). Although detailed financial information is not available, it is possible that revenue from airports does not fully cover infrastructure costs. Airport charges are not based on costs at each airport and revenue from air traffic management services for overflying aircraft seems to be used to finance the airports. Under international agreements air traffic management charges should be based on the underlying costs so this transfer from overflying aircraft to aircraft using airports is unsustainable.

Investment in all aviation infrastructure is funded from the state budget, It is recommended that airlines are given more commercial freedom to set cost- and market-based fares, that investment is financed on commercial terms and

government should give subsidies for lower fares on specific routes if there are social reasons for doing so.

Airport and air traffic management charges should be reviewed to relate these to the costs incurred, so that they at least cover the operating and variable infrastructure maintenance costs. Unless given specific subsidies on social or developmental ground, charges for airports which are wholly used by civil aviation should also allow full cost recovery (including financing costs on normal commercial terms). Where airports are used for both civil and military purposes, the contribution to fixed costs made by the civil airport section should be clearly defined so that management have clear guidelines.

To implement sound pricing policies it is recommended that:

(a) the MOT works with the Government Pricing Committee (GPC) to make a clear policy commitment to base transport prices of each mode on underlying costs,
(b) remaining general transport price controls are removed and if necessary replaced with direct subsidies for specific services (preferably awarded to operators that can offer the services at least cost),
(c) user charges for public facilities used by road, waterway and maritime users are developed as outlined above to cover at least the variable costs of infrastructure maintenance,
(d) the railway, ports, airports and other transport SOEs are given the freedom to set prices for their services, subject to GPC approval in case of monopoly situations and to being self-financing (except where payments for specific railway lines or other infrastructure or services are being made by government).

2.5 Equitization of Transport SOEs

Approaches to Privatization

Approaches to privatisation in transport in different countries reflect overall goals of privatisation (raising money for government from asset sales, broadening share-ownership, encouraging home-ownership, minimizing subsidies, increasing competition and management efficiency,) and the history of private and state ownership in the country.

It is common to find certain transport sectors as early candidates for privatisation - especially road freight, but also road passenger, inland water operations, coastal shipping, infrastructure design and construction, certain services in ports and airports. Other sectors considered include certain railway functions such as station services, catering, cleaning, rolling stock maintenance, and track maintenance.

There are two types of approaches: either selling assets or selling companies as going concerns. The latter is considered to raise more funds for government but if the company is in a dominant position it raises competition issues (requiring regulation for natural monopolies such as infrastructure provision).

Selling assets and companies raises questions about how to sell (for cash in order for government to raise finance or for coupons given by government in order to transfer assets without receiving finance in return), who to allow to take ownership of assets (workers, the general public, foreigners), and how to value assets (on book value or on market value) and companies (on asset base and/or future earnings, through estimation of current prospects or through sales through a stock exchange or similar market).

The success or otherwise of privatisation has been found to depend on the extent to which government establishes a suitable business environment - a clear legal framework that does not discriminate against the private operators and a clear policy that reduces the risk of interventions such as subsidies to state enterprises.

China

China's history of virtually complete state ownership in the transport sector was only moderately long (about 40 years) and so when economic reform were introduced the private sector was able to develop quite rapidly. However reflecting general privatisation policy, little progress has been made in transport privatisation. At least until recently, even most state-owned road freight enterprises remained in state ownership although, as a model for its market-oriented reforms, it has encouraged the development of the private trucking sector (through legal reforms and measures to allow competition for state transport contracts) in order to stimulate competition and to put pressure on the state-owned enterprises and cooperatives to improve their efficiency. Simultaneously it has tried to reform state-owned enterprises. It has achieved only mixed success - debt of state enterprises has risen and government has been forced to use valuable resources to subsidize operations. The government is searching for improved ways of handling bankruptcies, including dealing with the adverse social consequences of redundancies.

Russia

Adopted a mixture of sales of assets and companies. An important aim was to spread the benefits of privatisation to the whole population through coupon schemes that allowed each person similar opportunities to acquire some shares at no cost. Because the private sector was virtually completely absent after many years of state ownership, a small proportion of smaller assets such as road vehicles were auctioned in order to stimulate the private sector. The private sector has grown very quickly in small-scale industries such as road transport. Transport enterprises were sold, together with most other similar enterprises, through a mixture of coupons and cash (initially through estimates of asset values,

later through values established on emerging stock exchanges). The result has been two types of companies - many small entrepreneurial ones (especially in the trucking business) who operate efficiently although not necessarily all at high quality, and larger ones which are the remnants of the more successful state-owned enterprises who may not be as efficient as the small new private operators, but can still offer a useful alternative in terms of predictable service.

Kazakhstan

This country followed a similar path to Russia and, despite serious economic problems, has achieved significant results in privatisation. Initial attempts at privatisation were found to be ineffective because of cumbersome procedures and rules that made it difficult for private owners to acquire controlling stakes in the companies. Eventually smaller-scale companies, such as road transport enterprises, were sold as going concerns through auctioning large blocks of shares (representing say 10-30% of the enterprises' shares), which allowed individual investors to acquire at least 50% of shares through only about two or three successful bids. Even foreign investors were allowed to purchase shares and set up businesses in domestic transport. Privatisation elsewhere in the transport sector made slower progress because of the need to restructure monopolistic organisations (in particular the main airlines owned the airports and could receive preferential treatment, and the railways were in need of major restructuring in order to make them market-oriented and operate in a business environment attractive to private investors).

Philippines

Although traditionally the private sector has played a major role in the transport sector, the Philippines has actively pursued a policy of privatisation of all non-private transport operations, including air, shipping, and port operators. Only the national railway remains wholly in the state sector but even here there are plans to encourage private operators (and private companies will operate new urban railways which they are constructed in Manila). In some cases all assets are included in the privatisation process (including vehicles, ships and aircraft) - but in the case of air ports and some sea ports, the government has retained ownership of certain assets for the time being and given management responsibility (for example, cargo handling and storage in air ports and sea ports) to private companies. This country is also trying to privatize functions of government such as construction and operation of infrastructure (toll roads, air port terminals, tunnels, rail transit).

General Strategy for Vietnam

Despite doubts about the extent of the equitization program, it is clear that much of the transport sector will, in the long-term, be equitized. There is no economic case for keeping most transport operations in state-ownership - the main examples being those businesses which tend to be monopolistic which need to be regulated if they are in the private sector. Airports, the railway and some

seaports may fall into this category. Even in these businesses there are many examples around the world where the private sector can contribute successfully to the transport sector - for example, provision of new sea and river ports, new specialized sea and river port terminals for handling containers and other purposes. Railway privatisation is also feasible once the railway is business-oriented and government puts a suitable business environment in place.

However it is also clear that the process will take so long that reform of existing SOEs cannot wait until then because of the need to foster competition within the transport sector. Competition can be promoted by (a) giving the SOEs greater managerial and financial autonomy (preferably through equitizing them as independent corporations with shares owned by the state, and giving them performance contracts against which success can be judged), (b) splitting up corporations into smaller units (for example to separate, more clearly, SOEs responsible for port services from SOEs responsible for shipping services, to ensure equal access to facilities by all operators), (c) reforming the large state corporations to act less as management conglomerates and more in a hands-off manner, or (d) abolishing these corporations and vest state ownership interests in a specialized agency such as the General Department for Management of State Capital (GDMSC).

The appropriate approach depends on overall government policy for SOE reform and the particular circumstances of each subsector. Government is very concerned to improve efficiency of SOEs and is planning an equitization program to transfer ownership of them into private hands. However, in transport, aviation, the railway and ocean shipping are regarded as strategic industries in which SOEs are not for equitization. Most infrastructure maintenance SOEs are defined as Public Service SOEs which, again, are not considered suitable for equitization. Unfortunately the legal basis for administering Public Interest SOEs constrains delegation of responsibility (for example carrying out maintenance services under contract) and introduction of incentives for efficient asset use (because the assets are not "owned" by the SOE). It is recommended that the policies regarding the scope of equitization of SOEs in the transport sector are urgently reviewed to define exactly what is included as strategic and suitable for equitization.

In the case of multi-user facilities such as ports and airports it is recommended that reform strategy is based on five principles to increase incentives for efficiency and promote fair competition - commercial autonomy for each port, separation of port and transport service interests, competition within and between ports, clear demarcation of responsibilities between government and port management, and maximum involvement of the private sector. The following general strategy can be summarized as follows for each subsector.

(a) Roads - complete equitization of SOE operators is desirable in the short-term because they are not strategic and not prohibitively large to prevent private sector ownership,

(b) Railway - establish the railway as a single corporation after divesting non-core units such as construction, hotels, cleaning services etc., reorganized in the medium-term into a lines-of-business type of organization that gives financial autonomy to the two main passenger and freight business managers, with other business units such as infrastructure and equipment maintenance offering services to the passenger and freight businesses. In the long-term other reform options can be considered such as splitting up the railway into separate corporations with private investment and allowing competing operators to provide services on the railway.

(c) Inland water - equitize all SOEs but keep the port facilities in state hands, under provincial government, by establishing local port corporations that negotiate management contracts or lease/rent facilities to private operators. Planning and regulation of ports would remain VIWA functions.

(d) Ports - in the short/medium terms, corporatize each port as an independent state-owned business, responsible for managing state assets and developing the port (which can be jointly owned by central and local government). Equitize the cargo handling SOEs and other port operations as financially independent organizations and enable the ports, shipping companies and agents to make contracts for port services. The port corporations would be able to lease out facilities and encourage private sector development of ports, but overall planning and regulation of ports would remain VINAMARINE functions.

(e) Shipping - in the short/medium-term, equitize the smaller shipping and service enterprises (keeping a controlling state share for strategic organisations like VOSCO) and continue to encourage joint ventures so that foreign investment and know-how can be acquired. Where equitization is not possible, then at least VINALINES should adopt an arm's length relationship with its members, limited to requiring a minimum return on assets or fulfillment of contractual obligations between the SOEs and government, avoiding direct intervention in management or allocation of assets. Equitize smaller SOEs of VINASHIN (especially ship repair and similar support units for the subsector).

(f) Aviation - in the short- and medium-term, restructure VAC to give the three Vietnamese airlines more autonomy, divest and equitize VAC support functions, and divest the commercial airport functions of the Regional Airport Authority as airport corporations (with members of the management board from provincial and central government). The regulatory functions of the airport authorities would be retained in CAAV.

Implementing Considerations

To implement government's equitization program in the transport sector and increase efficiency of those enterprises remaining in government hands, a two-stage strategy is recommended in which priority SOEs (for which equitization is most desirable and feasible) are targeted for early equitization and a program defined for implementing this. The experience gained during this first stage would then be used to define the program for the second stage.

The aim would be to equitize much of the smaller-scale transport sector with minimum complication and effort (especially avoiding the need for expert advice on restructuring enterprises before equitization, which would be very expensive and delay the whole process). To proceed as quickly as possible, the rules for the first stage would be mainly based on present rules, although it is expected that these would be adjusted during the process (indeed many changes in rules are proposed below to help the process along). Two types of criteria would be defined for selecting priority equitization candidates:

- policy-related criteria, that is, equitization of selected candidates would clearly be in accordance with government policy and have clear benefits, and
- practicality criteria, that is, equitization would be feasible in practice due to the absence of major constraints such as (a) large debts, (b) need to raise substantial capital or (c) need to consider reorganization before equitization.

This first stage could include many non-strategic smaller-scale transport enterprises that are relatively easy to sell to workers, managers and other small investors based on the production of relatively simple business plans and financial statements (such as most road transport operators, many inland water operators and construction enterprises). The enterprises to be included in the second stage could include larger enterprises, such as shipping companies, shipyards or port management companies, that may require complicated reorganization or special study before they can realistically be offered for sale. Rules for the second stage could be different, depending on government's future policy, especially regarding these more difficult cases.
The following measures would be required in the first stage:

(1) finalize an accurate list of equitization candidates in transport, including those under provincial governments and in aviation,
(2) categorize each enterprise, if not already done, as either public interest or business SOE,
(3) clarify clearly which business SOEs are free for complete equitization, which ones are definitely to remain under 100% state ownership, which ones will have special government controlling shares, and which ones can be only partially equitized (by selling a proportion of shares, by hiving off certain parts, etc.)
(4) identify the most feasible SOE candidates based on clearly defined criteria such as being non-strategic (free to equitize), small scale, able to contribute to development of competition in their particular subsector, and (in the case of unprofitable enterprises that may need to be liquidated) the value of assets that could be most usefully placed into the hands of better management,
(5) identify the most suitable means of equitizing them, such as various

combinations of manager/worker buyouts, advertised public share sales, auctions of shares (individual shares or in lots), auction of assets, liquidation of assets, etc., based on international experience,

(6) identify any conditions that could be created to promote equitization (particular the need for policies to deal with surplus labor, and policies to enable access by equitized organisations to equipment and other inputs - possibly through establishing leasing companies for shared assets such as road construction equipment),

(7) identify possible incentives to encourage purchases of shares (for example, making credits available on a commercial basis for purchase of shares),

(8) prepare equitization plan, including necessary documents and procedures, and a realistic timetable that would meet government's policy goals and necessary support measures (such as changes in rules required and setting up institutional arrangements for implementation, including compensation schemes),

(9) prepare business plans for the equitization candidates (possibly with external assistance),

(10) implement the equitization program.

Possible changes to existing rules and procedures (some of which have become possible under Decree No. 103/1999/ND-CP dated September 9,1999) include:

(1) basing evaluations on market prices, obtained by investigating going rates for sales in the private market or, if necessary, by auctioning a variety of typical assets (for example, trucks of various types and ages in various conditions),

(2) issuing clearer guidelines on how to implement each step of equitization,

(3) removing restrictions on share ownership by particular investors and allowing sales of shares by auction of lots representing about 10-20% of all shares in the company to allow outside investors to acquire more easily a controlling interest (or even 100% ownership) in enterprises,

(4) introducing an option to sell small-scale transport businesses not through sale of shares at all, but through sale as a going concern (like a family business, with concentrated ownership),

(5) encouraging enterprises to deal with debts in a positive manner, possibly by selling off assets at market prices to repay the debt before equitization,

(6) allowing easy liquidation of unprofitable enterprises and selling moveable assets, such as road vehicles, while reassigning fixed assets for possible alternative use,

(7) defining realistic timetables which must be followed for each step (with well-defined time allowances for dealing with any specific problems that may arise in particular cases),

(8) making the General Department for Management of State Capital

responsible for representing government's ownership interests in all SOEs, rather than allowing the managing board or director of the parent company or enterprise to represent state interests to establish hived-off units as fully autonomous,

(9) adopting a passive role as investor and allowing remaining investors to suggest policy and develop plans to make the enterprise more viable and make sales of remaining shares more attractive, if government cannot sell a majority of shares in an enterprise,

(10) increasing incentives for enterprises to seek equitization by setting time limits for any special concessions to managers and workers and setting time limits on the process with liquidation as the measure of last resort if enterprises cannot produce attractive business plans within a reasonable time.

The MOT should review broader transport policy, especially fares and tariff controls and measures to liberalize bus operations, to identify where market conditions can be made more attractive, consistent with its transport policy to encourage investment and equitization. In particular, measures that simplify regulations and allow legitimate businesses to operate without support from officials within the state administration would reduce the incentives for enterprises to remain in the state sector.

The MOT should strengthen its equitization team, financed perhaps from the proceeds of equitization, by employing full-time experts who can devote their full attention to the equitization program. Such a team is essential for the proposed assistance program in equitization, so that the foreign experts can work effectively and pass on know-how to sustain the program. For the same reason, consideration should also be given to employing local consultancy experts (for example, with knowledge of business planning) to work on this assistance program. In addition the MOT should lobby government for other support such as:

- establishing the results as early as possible, of the proposed HCMC pilot study into estimating asset values by market mechanisms,
- setting up the proposed pilot State Financial Investment Company (SFICO) to invest into equitized enterprises on a commercial basis (preferably on the same commercial basis as other investments in Vietnam, with clear rules about the terms of credit and basis for equity involvement),
- setting up the stock market to allow more effective sales of shares (especially the residual shares held by government after the initial flotation),
- setting up a monitoring system to determine the success of the program and identifying the need for further changes to the equitization rules and procedures.

In addition, consideration should be given to setting up revolving funds to help finance the process. Government or an international agency would set up the fund initially but then it would have to be self-supporting from a proportion of the sales of assets. For example, advice on equitization could be given by financial advisors for an agreed commercial fee which is payable once the equitization process is complete. The same sort of fund could set up equitization agents whose job is to buy and sell shares (possibly useful in the absence of a stock market).

In the second stage, the following measures would have to be considered to complete the equitization process:

(1) the need for reorganizing large enterprises to (a) make them more feasible or attractive to equitize and (b) reduce the risk of creating private monopolies,
(2) in particular, consideration should be given to separating major fixed assets in ports from those required for day-to-day management, to establish management companies that can lease the fixed assets or be awarded management contracts,
(3) major changes in rules to allow major foreign investments, especially in the maritime sector,
(4) major changes in rules to encourage still further interest by private investors in those remaining small-scale enterprises that are difficult to sell (especially by allowing wholly owned companies and writing off major debts),
(5) transfer of responsibility for equitization away from line ministries to a specialized privatization agency able to develop the know-how required to tackle the more complicated issues involved with large-scale equitization.

2.6 Other Considerations

1) Enable transport issues to be given adequate consideration by government

To tackle the complicated, interactive set of issues usually found in transport planning, policy-making and implementation, the MOT needs greater support from stakeholders in the transport sector. In turn, transport user stakeholders need the MOT to represent their legitimate interests at government level so that transport policies and plans can be developed in support of transport activities (where this is in the national interest).

To strengthen MOT's voice in government by promoting a broad constituency of organizations involved with transport, it is recommended that, in parallel to traditional consultation mechanisms established as part of the political process, the following actions are taken by MOT:

(a) establishing liaison groups chaired by the MOT with representatives from transport users (from the private and state sectors of industry and agriculture, importers and exporters, freight forwarders, voluntary associations or representatives of large and small transport operators in all modes for both domestic and international transport, provincial and national government departments) to engage in dialogue on the key issues where consensus and support is important to achieve (initially on financing roads and other infrastructure, later with organisations concerned with road safety)
(b) continue to seek international support for holding workshops on transport issues, at which liaison group members are invited (initially for the proposed workshop on road financing)
(c) establish regular workshops, chaired by subsector agencies, with liaison group members and other interested organisations, to monitor the views about obstacles experienced with particular modes (and coordination with other modes)
(d) establish consultation procedures for coordinating organisations such as the National Traffic Safety Committee, to support their activities
(e) invite international agencies such as UNCTAD, ASEAN and ESCAP to help users of international transport services in Vietnam to establish user groups such as a national shippers council, to provide an effective means for users to engage in dialogue with MOT
(f) establish a national statutory agency with a representative in each province to represent transport users in Vietnam, especially public transport passengers who would otherwise have little means of expressing their views to government

2) Improve the cost-effectiveness of technical assistance in institutional strengthening

Cost-effectiveness can be improved by:

(a) better targeting of assistance - there has been little assistance in transport given at provincial level and in railway, and so appropriate assistance in such areas could yield effective results,
(b) encouraging stronger ownership of reform programs by ensuring that all responsible authorities are fully involved in defining the work program and agree to implement the results,
(c) realistically assessing resources, both local and foreign, required to carry out institutional strengthening projects,
(d) paying closer attention to how local financial resources are to be provided under study recommendations,
(e) paying closer attention to ensuring that the best local expertise is involved in institutional development projects (by appointing qualified counterparts who are able to gain from transfer of know-how, allowing

local consultants to play an appropriate role and awarding consultancy contracts purely on merit),

(f) recognizing that institutional strengthening is a long-term process and requires a long-term, sustained, commitment by donors if it is to achieve effective results, with substantial training inputs,

(g) providing better coordination of donor support in transport by better exchange of information - for example, making reports available on the Internet (at least in summary form) and organizing regular forums to exchange ideas and identify where each donor can use its comparative advantage to greatest effect.

3 SUBSECTOR ASPECTS

3.1 Roads

Issues

1) Poor quality services

Government reforms have had major achievements in road transport because efficiency is quite high and costs are often very low. In particular, the cost of freight transport (at about US Cents 3 per ton km) is as low as found in any country in the world. This is achieved despite modest utilization rates, such as about 40,000 km operated per vehicle per year and average load factors of about 60%. Such tariff rates have been sustained for several years even though substantial new investment has taken place in trucks. This investment has been almost entirely within the private sector, which now dominates the business, although the state sector still has a significant proportion of large trucks and most private operators have only one or two trucks. Only 15 road transport operating enterprises have been equitized so far (including some bus operators), although there are plans for many more in 1999. It is widely considered that many of the SOEs are difficult to equitize because they are not profitable enough and assets are overvalued. Many enterprises are burdened with loss-making units which have been absorbed as part of past consolidations of the SOEs to avoid bankruptcies. Others have tried to diversify into activities such as vehicle maintenance services, catering and trading activities but these do not seem to be particularly profitable. It is clear that some road transport SOEs are close to bankruptcy.

The cost of bus transport varies considerably, apparently due to variations in competition, quality of service and local conditions (the officially approved fares for ordinary services vary between US Cents 0.8 and 1.2 per passenger km which are quite high compared to similar quality services provided in other countries. However in practice, under competitive condition, they can be as low as US Cents 0.5 per passenger km) which is low by international standards. The private sector is increasing its role in bus transport although, on scheduled services, the state sector appears to continue to dominate in many places, especially in the north, because of restrictions on the number of buses able to operate on the routes and the slow rate of equitization.

Despite the low costs the quality of services are rather poor. Although there are notable exemptions (such as the growing number of private operators with fleets of about 20 vehicles who can offer total transport services for customers, including special requirements such as container handling), few truck operators seem to be able to offer reliable services. There is an adequate level of supply, with plenty of trucks (including heavy trucks used for long distance and for specialized purposes such as container haulage).

However, management is generally weak because many truck owners - within the dwindling state sector companies, in the cooperative sector and in most of the small-scale private sector - subcontract marketing to drivers who usually collect all revenues, pay owners for monthly use of the vehicle, pay for running expenses, and keep the balance.

Almost all truck drivers interviewed in the terminal surveys complained about the roads (including the limited width and layout of roads at ports). Other complaints were made about road tolls, competition from other transporters, traffic conditions, and loading/unloading facilities (especially at ports).

Bus services are often unpredictable. Some services operate from designated bus stations at advertised times or at regular intervals, under the control of local cooperatives. However, once on the road the buses make frequent stops, often for lengthy periods, or even make diversions to find additional passengers. It is reported that on some long routes, passengers may be transferred from one bus to another if there are insufficient passengers on board. There is limited protection available to passengers from such maltreatment such as clear rules advertised in the buses and name/address of licensing authority to make reports of infringements. There is generally an adequate supply of buses, with little overloading on main routes according to the VITRANSS surveys (although overloading appears to be common on many minor routes). However, frequencies are often low because of low demand and there may be difficulties for passengers traveling to or from destinations in remote areas. An increasing number of high-quality buses are being introduced into the fleet for operation between major urban centers, charging higher fares. Nevertheless in general passengers appear to prefer the minimum cost option and the opportunity to carry luggage (many passengers carry large bags of rice, bicycles and even motorbikes carried on the roof, reflecting the fact that most passengers reach terminals by bicycle or motorbike).

Results from passenger interviews in bus stations (described in Technical Report No. 1 on transport surveys) suggest that passengers are far from happy about the state of bus stations, with many complaints about the overcrowded and dirty conditions for walking and waiting. However, almost all passengers rate most service aspects, such as availability, frequency, comfort, safety, and punctuality, quite favorably, with over 90% of people rating these aspects as good or fair.

2) Lack of stable funds for road construction and maintenance

The poor state of roads is widely blamed on insufficient finance. However, equally important are other factors such as the lack of a competitive road construction industry and maintenance organizations using modern maintenance systems with effective maintenance strategies and working methods, adequate management information and planning systems based on

comprehensive road inventories and adequate financial and management accounting methods to control costs and performance.

Substantial road improvement programs that have been implemented with marked success in recent years have encouraged the development of competition in the Vietnamese construction industry, although the extent of real competition appears to be limited. The international assistance involved has also resulted in training Vietnamese engineers and administrators in implementing agencies but, although this has helped staff to acquire skills, cumbersome procedures continue to slow down project implementation. However, none of the Vietnamese construction agencies has yet been equitized so the move toward consolidating a strong, competitive construction sector is far from complete. There are no plans at all for equitizing maintenance enterprises, which have been classified as State Public Benefit Enterprises, not for equitizing.

Efforts have been made to improve the management system, and a maintenance manual, based on modern practice, has been developed for application in Vietnam. However, this manual has yet to be applied in practice, partly because it involves major changes in work practices, many of which require additional finance and substantial training efforts at all levels to enable the staff to use the manual.

Although the VRA is responsible for managing the national road network through the regional road management units (RRMUs), it relies on provincial road management units for much of the network. However, the VRA has limited control over these provincial units and can do little to ensure that funds allocated for national road maintenance are actually spent on the roads as planned (even though the purposes of funds are specified in detail and distinguish between different kinds of maintenance), because the funds are transferred via provincial finance departments, which can delay disbursement, and the VRA has no effective way of monitoring the work carried out.

The situation is even more serious in the case of provincial roads, over which the PTAs, rather than the VRA, have direct management responsibility. For these roads, funds are allocated direct to the provinces without any direct involvement of the VRA (for example, to inspect and approve the plans). It is also not clear to what extent allocated funds are actually used for road maintenance or construction. There is no adequate road inventory and maintenance systems used on provincial roads are in an even more parlous state than those on national roads. Despite being responsible for planning and setting technical standards for all roads, the VRA is left with very limited oversight on provincial and other local government roads, other than advising on technical standards and other administrative matters, as and when required.

3) Lack of planning capacity

The capability of the VRA to propose and implement road plans is very limited because it lacks the management systems to plan and control implementation. Furthermore, it has not yet started to develop its important function of road network planning. The institutional weakness is because of lack of both management/planning systems and trained staff. It needs institutional strengthening to develop the capacity to develop road network plans to present to the MOT.

In practice road construction projects are implemented through PMUs which are responsible to the MOT rather than the VRA. This deprives the latter of the chance to acquire and consolidate this expertise, which could mean that in the long term, after the PMUs have performed their function and are disbanded, there will be no residual project management expertise left in the road transport subsector.

In terms of road transport, VRA's ability to assess (mechanized) road-user needs is very weak because it lacks even rudimentary information, such as the characteristics of the vehicle fleet, due to a lack of effective cooperation between the VRA and the police and the lack of an effective computer database. VRA staff also lack expertise in monitoring road transport under market conditions, continuing to pursue approaches which have been inherited from the past. In particular, a completely new approach is required to monitor and collect statistics about the road transport industry. The present approach relies on detailed information being collected from all operators but is no longer feasible. Implementation would be complicated, apparently, by a lack of agreed division of responsibilities between MOT's Legal and Transport Department and the VRA.

A new approach is also required in planning and regulating bus services which continue to be based on a quantity licensing approach more reminiscent of the largely discredited approach to regulating international airline services by mutually agreed quotas rather than on a more effective approach that allows bus operators to plan and develop their own services in competition with other operators, provided they can fulfill minimum safety requirements. The perpetuation of this approach in Vietnam may reflect the understandable concern of ensuring that bus services in remote areas are available. The VRA tries to achieve this by restricting entry into profitable routes in the hope that operators will transfer operations into less profitable ones. This further ensures that profits earned on profitable routes can be used to cross-subsidize unprofitable ones. However, enforcement is so ineffective that such an approach seems impracticable. Illegal competition will inevitably deprive licensed operators from achieving the desired excess profits and they will be unable to cross-subsidize other services. Even if it were practical, this would not provide subsidy efficiently. Rather, it would (a) reduce competition and

increase transport costs generally, and (b) protect existing, inefficient state operators from much needed commercial pressure to reform.

The problems with the current approach are illustrated by the conclusion of a recent conference by the VRA and PTAs in northern Vietnam (VRA Document No 1043/DBVN-VT dated June 21, 1999) which recommended that normal bus fares be raised to VND 145 per passenger km (about VND 20 higher than the average of about VND 125 found in the 1999 VITRANSS survey) and that VAT be charged assuming this level of revenue even for efficient operators which can operate with lower costs. If such fare increases were to be implemented throughout the country on all interprovincial bus routes, the overall annual increase in interprovincial bus transport costs in Vietnam would be about VND 900 billion, based on the VITRANSS estimate of 120 million passenger km/day of bus transport (which is as much as 0.3% of GDP).

Until recently it was far from clear what the future role of the VRA would be. However, some of the doubt has been removed by the introduction of provisional Government Decision No 3525/QD-BGTVT/1998 dated December 23, 1998 which defined VRA's responsibilities and powers in more detail than in the past. This decision makes it clear that VRA's future role will include management of road construction projects and giving assistance to the MOT in developing road network plans, investment plans, policies, laws, and regulations. VRA also has the role of guiding and providing technical and professional assistance to the localities in planning and making plans for development of communications and transport in the localities. It also has the responsibility to organize and direct the management, maintenance and exploitation of the infrastructure of road communications....to observe the regimes, processes and rules on the management and exploitation of the system of local roads. However in practice there are no guidance documents or procedures to implement these powers at provincial and district levels.

4) Inadequate road safety programs

As motorization has increased in Vietnam during the last 10 years, the number of road accidents has increased three-fold (and deaths have more than doubled). The national fatality rate is about 11 deaths per 10,000 motor vehicles, which is similar to other southeastern Asian countries, but 10 times the rate found in many developed countries. It is estimated in "Vietnam Road Safety Improvement Study - Strategy and Priority Action Plan", Ross Silcock/TRL, May 1998, that the cost of road accidents in Vietnam is likely to be at least 1% of GDP (possibly 2% or more).

The ability of government to develop effective road safety programs is limited by the poor accident data available. Existing data are considered to be unreliable and incomplete, so the causes of accidents and the best methods to reduce them are difficult to define. Enforcement is also very weak, so many

regulations do not achieve their intended effect. Vehicle inspection stations have inadequate equipment to test vehicles properly and driver testing is too theoretical in nature.

In the absence of a proper scientifically based approach to road safety government has adopted a variety of measures that might have little justification on safety grounds. For example, a ban is proposed on old buses operating on provincial bus routes (no older than 12 years for buses which have imported truck chassis and local bus bodies) to reduce accidents. New technical standards have likewise been introduced that would increase the cost of operating buses (MOT Decision No 890/1999/QD-BGTVT dated April 4, 1999). Transport operators are concerned that if the new standards are enforced strictly then most vehicles would have to be scrapped. Many of the technical requirements have little bearing on safety (being concerned with the temperature of the air-conditioning, the intensity of lighting inside the vehicle and visibility of the passenger entertainment video screen). Others have important safety implications (use of safety glass and provision of emergency exits and fire extinguishers), but sometimes fail to specify important conditions (such as the requirement that the fire extinguisher should actually work and that inflammable substances, such as petrol, should not be carried on the buses).

It seems that these regulations have been drafted without taking account of important technical considerations, costs of operation and their enforceability. The possible total cost of provincial bus route accidents can be roughly estimated as about 0.3% of GDP (assuming that total accident costs are 2% of GDP, that half of all accidents occur in rural areas and that buses are responsible for 30% of all accidents, in proportion to the number of motor vehicles recorded by VITRANSS traffic surveys). If higher technical standards and newer buses can reduce the accident rate by as much as, say 20%, then the total benefit would be 0.06% of GDP. However, this benefit would be outweighed by the increased costs of operation if the bus fare were to rise by as little as VND 4 per passenger km (based on the example described above for the effect of a VND 20 increase in bus fare causing a 0.3% increase in GDP). In fact, a much greater increase is possible if technical standards are raised too high.

Government recognizes the difficulty of implementing such higher standards and is believed to be proposing higher standards in a step-by-step manner. It is important that the transport industry is given a clear idea of how this will be done so that it has time to make adjustments at least cost (for example, avoiding making alterations to vehicles that will be scrapped soon after). This simple example demonstrates that there is a need to strengthen the capacity of both the VRA and MOT to develop cost-effective road safety programs, not just in terms of technical requirements but also in terms of capacity for economic evaluation of alternative road safety measures. As Vietnam enters

into international transport agreements there will be increasing pressure to raise standards to those achieved in neighboring countries, and a careful balance will be required to ensure that those international obligations are met without prejudice to the domestic transport sector.

5) Inadequate legal framework

The legal framework for the road subsector is not yet established. There is a proposed road act that is now in its seventh draft but it is understood that further work is required to complete it. The final draft would have to take into account various other regulations introduced in recent years, requiring either replacement within the framework of the act and/or amendment of the act itself.

However, even with the completion of the road act, much would need to be done to improve the implementing regulations. Road transport business licensing regulations involve time-consuming application procedures which impose high costs on the transport sector. For example, until recently, to operate a bus or truck required, in addition to the basic business license, a road transport license for each vehicle operated for business purposes (under MOT Decision No 2076/QD-BGTVT/1998 dated July 18, 1998). There are separate categories for vehicles used for public freight or passenger transport and for vehicles used for own-account purposes (for any vehicle with over nine seats), and there is a third category for vehicles used partly for own-account purposes and partly for public transport. Applications for these licenses require a completed application form, a valid business certificate and a vehicle registration certificate. Buses used on scheduled bus routes require permission to operate on particular routes from the responsible agency - the respective PTA for intraprovincial bus routes and some short interprovincial routes, and the VRA for longer interprovincial routes. They also require evidence of an agreement to operate from a bus station. Separate provisions apply for contract and tourist buses.

The licenses may be issued for one year for state-owned operators, transport cooperatives, joint ventures, limited companies, and private companies, whereas the maximum period for private individual operators is only six months. The licensing authority may issue licenses for shorter periods if they want and they may also specify the area of operation. In practice licenses are issued for shorter periods, especially for private operators, and restrictions on area of operation are often imposed. The restriction of scheduled buses to particular routes limits utilization of buses that could be efficiently scheduled to operate on more than one route. Operators report that it takes up to two days to renew their licenses because of complicated bureaucratic procedures and incurs additional administrative charges (about VND 30,000 per bus or truck plus unofficial payments if they want quicker processing).

If all licenses were to be issued for one year, total cost savings could amount to VND 30 billion, assuming that the number of licenses issued could be reduced by 50% from about 600,000 to 300,000 (from about two per vehicle to one per vehicle) and the cost of license issue is VND 30,000 (license charge) plus VND 70,000 (cost of management time, overheads and expenses). Even greater savings could be achieved if just one license were issued for each particular service, rather than for each bus. Further substantial benefits could be achieved from increased vehicle utilization if the area and route restrictions were removed, including greater incentives for operators to take commercial risks by opening up new services.

Under Prime Minister Decree No. 03/2000/ND-CP dated February 2000, all these transport licences have been scrapped, together with about 80 licences in other sectors. If MOT/VRA wishes to reintroduce this kind of licence it must reapply under the terms of the new Enterprise Law. This offers a good opportunity to simply the licensing system.

The VRA recognizes that there is a need for simplification of the licensing system not only in bus and truck licensing, but also in areas such as vehicle importation, vehicle registration and driver licensing where clarification is needed between the tasks of different agencies.

There are still tariff controls for movement of trucks in remote areas. For buses, the VRA has the power in principle to set fares for interprovincial services but detailed regulations have never been set. This gives some flexibility for operators to adjust their fares. Fares for services within provinces are set by provincial government although they cannot enforce these effectively.

In road safety there is a need to replace certain road engineering technical regulations to strengthen traffic safety aspects. Also cooperation between the VRA and the police must be placed on a firmer legal basis.

Objectives

Long-term goals for institutional development in the road subsector are briefly as follows:

- To establish a sustainable mechanism for road development and management to cover planning, financing, construction, and maintenance.
- To establish a competitive environment to facilitate and encourage transport operators in providing the public with efficient, high-quality services both domestically as well as across the border, while setting justifiable minimum safety and environmental standards.

Strategies

Within the overall strategy of strengthening management systems, divesting commercial functions and developing human resources, the following specific strategic objectives require attention in the roads subsector.

1) Strengthen financing of maintenance and administration of the road network

To improve the road network and the way it is maintained is at the core of the long-term strategy to develop road transport to increase capacity in a cost-effective way, taking account of total transport costs (which are mainly vehicle operating costs and other user costs, rather than road provision costs). As discussed in the review of alternative methods of financing roads described in the "Transport Sector Report, 1998", World Bank, 1999, this calls for a long-term sustained institutional development strategy which,

(1) places management of roads on a more commercial basis by establishing a road fund that is charged with the responsibility of maintaining the roads,
(2) financing the fund with a fuel charge and a heavy-vehicle registration charge,
(3) initially setting charge levels at those equivalent to present road maintenance funding so that no further strain is imposed on the budget,
(4) but increasing the charges over the 10-year master plan period (possibly increasing the price of fuel by between 5 and 20%) to raise maintenance standards and quality of road network,
(5) while strengthening vehicle overloading and making major road investments to deal with the current maintenance backlog and emergency repairs, and to improve the condition of the existing network and improve access.

If government accepts such a strategy, the first step would be to hold a workshop involving stakeholders, such as road user groups, whose support would be helpful to government in implementing such a strategy. The aim of the workshop would be to discuss the possibilities of introducing a road fund in Vietnam and agreeing on the next steps required.

One related aspect of this strategy is to continue to develop a competitive road construction and maintenance industry to minimize unit road provision costs. This requires high priority being given to equitizing road and bridge construction enterprises which are still in state hands. Eventually the maintenance units under the RRMUs can also be considered for equitization and forced to compete for maintenance contracts.

2) Improve the basis for regulation of road transport services

To improve the quality of transport services and reduce adverse externalities such as damage to infrastructure caused by overloading, road accidents and

environmental pollution, there is a need to make substantial improvements to the way government regulates road transport. This would involve a strategy which:

(1) firstly makes MOT regulatory policy clearer, based on the principles of minimizing total transport costs (taking social costs such as accidents fully into account) and introducing regulations only where the benefits outweigh the costs to the country (administrative costs and costs imposed on the transport industry), taking account of the level of enforcement that is likely to be achieved,
(2) following the scrapping all transport licences under Decree No. 19/2000/ND-CP dated February 3, 2000, there is a need for reviewing present regulations and regulatory practices (a) to eliminate any other regulations which cannot be justified, (b) to introduce modified or new regulations where justified to maintain safety/environmental standards, (c) to simplify administrative procedures to reduce the cost of regulation (both to government and to road users), and (d) to define self-financing administrative mechanisms for implementing the streamlined regulatory system and an adequate means of financing enforcement,
(3) provided that basic safety/environmental standards are maintained by driver licensing and vehicle inspection/registration, and that any minimum financial requirements are specified in the basic business licence, there is no obvious need for any further transport licence, although regulations may be needed to require bus operators to register urban services (to help plan services) - drafting the new regulations with the close involvement of road safety experts who can advise on the safety benefits of the proposed regulations and make sure that regulations support the overall road safety program,
(4) there is need (a) to remove remaining bus fares controls and to avoid reintroducing the old quantity controls on bus operations to stimulate competition, efficiency and a better range of services, (b) to empower bus passengers to secure their legal rights for fair treatment, (c) to strengthen the ability of regulatory agencies to advertise license conditions and to monitor bus services, and (d) to monitor enforcement and the effect on operations of stricter technical standards on buses and trucks to avoid restricting access by operators to the most appropriate level of technology and vehicle designs for meeting customer needs (technical quality rather than age of vehicle should be the main factor determining road-worthiness).

3) Develop and implement road safety programs

A comprehensive action plan has been proposed to tackle the most urgent problems in road safety which can be applied to National Highway No 1 in the short term and then more generally throughout Vietnam in the following five years. This can form the core of the 10-year road safety strategy, as follows:

(1) improve the quality of and access to nationwide police accident data system and develop appropriate analytical capability so that problems can be scientifically analyzed and appropriate improvements implemented by relevant agencies,
(2) strengthen the National Traffic Safety Committee (NTSC) coordination and control of road safety activity by developing and training a permanent secretariat so that it can use funding and powers to lead an effective assault on the country's road safety problems,
(3) introduce improved techniques and procedures related to safety conscious planning, design and operation of roads, including road safety audit, and train Vietnamese road engineers in these issues, and
(4) strengthen the traffic police and traffic inspectors with regard to enforcement activities and introduce, via pilot highway patrols, modern enforcement techniques and practices.

In the long term, once a body of information about road accidents has been collected and the basic institutional capability for analyzing this information and introducing priority safety improvements has been established, the road safety program can be further developed using increasingly more refined measures aimed at lower priority improvements.

4) Strengthen the VRA and the PTAs

To implement the improvements in infrastructure management and financing, both the VRA and the PTAs need substantial institutional strengthening in terms of transport planning, management planning/information systems, effective guidance documents, modern maintenance management systems (including the introduction of maintenance contracting on a broader basis), new financing mechanisms, new management and financial accounting systems, and better trained staff. More training is also required in road transport regulation.

So far attention has been concentrated on strengthening VRA and the PMUs. In future, greater priority should be given to strengthening PTAs and other local agencies, not only to improve management of provincial/district roads but also to implement successfully the institutional reform measures aimed at strengthening management of national roads.

In particular, priority should be given to strengthening PTAs and other local agencies in
(a) assessing transport needs and problems at the local level,
(b) planning and project evaluation capacity (both in making provincial plans and assisting districts in developing rural plans),
(c) managing and financing infrastructure in accordance with clear centrally-defined standards,
(d) implementing a national transport computer database for planning and policy-making purposes.

An institutional development strategy has been mapped out under the technical assistance project carried out by ND Lea, which would enable the VRA to fulfill its responsibilities to oversee the whole of the road network in (a) infrastructure management and (b) other management aspects such as road safety and road transport regulation. An equivalent institutional development strategy for the PTAs must also be developed and implemented. The status of implementing the recommendations of the ND Lea study is summarized in Appendix G. Many recommended improvements have yet to be implemented and there are further Institutional Strengthening TA Projects to assist VRA and the PTAs in deepening these reforms. Outstanding issues concerning infrastructure management responsibilities can be addressed through,

(1) MOT approving the final version of provisional Decision No. 3525/1998/QD-BGTVT dated December 23, 1998, to define the responsibilities of VRA,
(2) based on these overall responsibilities, revising the distribution of responsibilities of each organizational unit within VRA once they have the capability to assume the new delegated responsibilities, especially for defining and implementing design standards and guidance documents, and administering construction contracts (so that PMUs can eventually report to the VRA rather than the MOT),
(3) continuing to work with the MOT to define clearer and more precise policies and ways to monitor project implementation through a computer-based management information system,
(4) developing a workable mechanism for the VRA to assume specific planning and project implementation tasks delegated to it by the MOT, requiring substantial external assistance to enable the former to assume these responsibilities (especially at provincial level),
(5) developing a range of guidance documents and procedures for the VRA to manage infrastructure more effectively, especially through defining new technical standards and work methods to decentralize decision-making,
(6) defining those functions, such as provincial road planning and maintenance, which the VRA would not directly manage but would delegate to other organizations, and establishing effective guidance, monitoring and control mechanisms.

VRA's road safety and road transport regulatory responsibilities can be addressed by,

(1) improving information management, especially by defining detailed information needs, by introducing centralized computer databases which are accessible to all relevant staff (including staff in other agencies such as the MOT) and giving clear responsibility/authority to VRA personnel for managing the information, monitoring transport conditions and developing road safety programs,
(2) improving driver testing especially through making this a more practical

test and allowing private training of drivers,

(3) giving access by MOT, VRA and the PTAs to vehicle registration statistics by improving cooperation with the police,
(4) improving vehicle testing especially through reviewing the testing procedure and standards to set enforceable minimum standards in critical safety aspects, allowing licensed private workshops (who also carry out repairs and maintenance) to carry out vehicle tests,
(5) updating geometric design standards of roads to allow modern heavy vehicles on defined categories of road (based on the functional categories defined elsewhere in the VITRANSS study) and introducing geometric design standards for junctions,
(6) strengthening roadside enforcement of vehicle safety and size and weight regulations, especially by improving cooperation with the police over roadside inspections and using better equipment,
(7) improving traffic safety programs through production of better manuals and developing a core cadre of road safety specialists (both in-house and in local specialist road safety institutes and consultancies),
(8) providing more effective public education on road safety especially through cooperation with the Ministry of Education on producing and disseminating quality information,
(9) improving safety information systems, especially to assist the NTSC in organizing research on traffic safety.

5) Develop the legal framework

To support the above strategy, many improvements have to be made to the legal framework, including,

(1) reviewing the latest version of the road act, taking account of current transport policy and legislation, the possible need for shortening the act and the possible introduction of an umbrella law on transport; and preparing a final version for implementation (possibly in 2000),
(2) reviewing the current body of implementing transport rules and regulations to identify where changes are required (a) to implement the new road act (especially if this is shortened) and (b) to remove or modify unjustifiable regulations (whose benefits are outweighed by their costs), especially regarding licensing of buses,
(3) reviewing legal requirements to introduce a road fund and placing not only maintenance/construction but also general administrative functions on a sustainable financial basis (once the form of the road fund has been agreed and the administration of the road sector has been streamlined),
(4) reviewing other broader legislation, such as rules affecting import controls which have a major impact on road transport, and identifying where changes are justified, especially regarding conditions for importing of second-hand vehicles and the basis for involving the private sector in road construction and maintenance,

(5) implementing further laws and regulations which establish administrative responsibilities, especially to define responsibilities for cooperation between the VRA and the police (for example, over supply of vehicle registration statistics) and improve financial and management control by the VRA over PTA activities (for example, over execution of national road maintenance and planning and management of provincial road maintenance).

3.2 Railway

Issues

The railway subsector faces a number of serious organizational problems which hamper its efficient development. These can be summarized as follows:

1) Lack of clear legal status giving railway commercial remit

Under initial government reforms railway was established as a union of state-owned enterprises (SOEs) - separate enterprises being established for the many operating units such as the various workshops, depots and construction or maintenance units. It was subsequently intended to convert the railway into a commercial corporation, similar to those created in shipping (VINALINES and VINASHIN), but this was never done. Although the name of the railway was changed under MOT Decision No 575/QD-TCCB/LD dated 16 April 1990 to Vietnam Railways (VR), it operates as a state-owned enterprise financed from government budget and responsible for managing the separate enterprises that make up the railway. As described in Technical Report No. 6, there are 48 SOEs plus a number of other operating units, such as training schools and clinics, shown in the organizational chart (Figure 3.1.1 Technical Report No. 6). These SOEs are organized into:

- three blocks having 28 business SOEs (for construction, industry, and materials/tourism/hotels),
- one block having 20 public service SOEs (for track, signals and communications equipment maintenance),
- train service and operations section having four public service SOEs (consisting of three regionally-based unions (I, II and III) and the ticket printing enterprise),
- training schools, health care and newspaper organisations, and
- five PMUs.

The four SOEs in the operations section are directly controlled by headquarters (having dependent accounting), whereas the other SOEs have independent accounting. The infrastructure block (responsible for track, signal and communications equipment maintenance) is financed directly by government. The rest of the railway is required to be self-financing and pay 10% of revenue to the government for infrastructure maintenance.

The headquarters is managed by the general director plus five vice directors (see Figure 3.1.2 of Technical Report No. 6). Although some vice directors have line responsibilities (for locomotives, engineering, transport, business and administration), there are seven units reporting directly to the general director (including the Planning and Investment Department and the Railway Transport Inspection Board).

Under this organizational setup, the railway has limited autonomy and a lack of incentive to operate commercially. Rather its remit is to act as directly instructed by the MOT. The three regional unions have extremely limited autonomy and, although they can make suggestions to headquarters, they must act in practice in accordance with the plans of headquarters.

2) Lack of clear long-term objectives

For day-to-day matter the railway is guided by the requirement to cover operating costs by revenues (after deduction of the 10% infrastructure charge). However, the long-term financing basis for it is not clear. Even if the railway were to be given more financial autonomy it would still need a clearer statement of investment policy by government.

3) Deficient regulatory framework

There is no railway act which would provide a basic legal framework for regulating railway transport activities, although safety responsibilities are set out in Government Decree No 39-CP/1996 dated 5 July 1996 (supplemented by Government Decision No 76/ND-CP/1998 dated 26 September 1998).

Although railway freight tariffs may be negotiated between the railway and customers, some railway tariffs are still regulated by the Government Price Committee. In particular, movements of rice from the south to the north and fertilizer in the reverse direction are subject to maximum prices. Passenger fares are all subject to government approval, with fares for foreigners set at a higher level than for Vietnamese. If fares do not cover the costs incurred there is no mechanism for subsidizing the railway.

4) Lack of management information systems

As described in "Unterstutung bei der Restrukturierung von Vietnam Railways", GTZ, January 1996, there is a general lack of capacity in the VR to make timely and meaningful management decisions based on financial and service criteria. Information is woefully inadequate, with managers having to rely on handwritten notes, often transmitted orally over the telephone and mainly handled manually. Data are often incomplete and are unlikely to be particularly accurate. One principal source of difficulties is the tickets, which are usually hand-written. Computers are only used for summarizing and

presenting information rather than for data handling.

5) Lack of transparency in accounts

The accounting system is not completely transparent and difficult to interpret. The present system was introduced on 1 January 1996, based on the International Accounting Standard introduced into Vietnamese law by the Ministry of Finance for all enterprises (see "Special Assistance for Project Implementation (SAPI) for Hanoi-HCMC Railway Bridges", OECF, March 1998). The operations section accounts (for the three regional unions, the ticketing unit and the headquarters) do not include the costs of infrastructure activities, which since 1995 have remained under government control. However, they do include the charge levied by government for use of the infrastructure (equal to 10% of revenue). The revenue from this charge is less than the costs of infrastructure provision and government makes up the balance in subsidy. Indeed part of the revenue from the infrastructure charge may be returned to the transport sector to cover the capital cost of transport equipment acquisition, maintenance and repair (if approved by the MOT). Separate accounts are produced for each of the main blocks (for construction, industry and services), and since the enterprises in these blocks have freedom to engage in non railway commercial activities, the accounts cover some non-railway activities.

6) Poor management tools

Despite improvement in the accounting and budgeting systems since 1995, the railway still lacks an adequate management costing system that would give management even rudimentary information about costs of providing various types of services. Allocation of traffic and costs to particular line sections is not easy, so that it is not possible to assess the viability of different lines. Daily information on equipment utilization, short-term demand projections in relation to available capacity is also lacking.

7) Lack of marketing orientation

The marketing function is still poorly developed. Activities are located in the headquarters and in the three unions but the market strategy appears to be oriented more toward production aspects rather than customer requirements. The railway's main freight customers remain much the same as in the past (large SOEs dealing in bulk commodities such as Apatite ore, coal, cement, other building materials, and fertilizer). Freight forwarders complain that there are no freight trains with guaranteed schedules. Delivery of empty wagons and final delivery of consignments are unpredictable and there is no information about the location of wagons with consignments. Basic improvements in passenger service, such as supplying through ticketing between trains and even selling return tickets, have still not been

implemented. Tariff tables reflect the requirements of the centrally planned economy rather than the market economy and are very complicated for junior staff to understand.

8) Overstaffing

VR employs an excessive number of staff and it appears that many are employed more for social welfare reasons than for railway business interests. Experience with other SOEs in Vietnam suggests that if VR is reformed as a corporation, commercial pressures will reduce the workforce substantially. This could raise social concerns.

Objectives

The basic objectives of the railway subsector in Vietnam are:

- to provide a national transport backbone covering major urban and activity centers for a more economical transport of people and goods .
- to strengthen international linkages by developing/improving (especially ASEAN rail) links with neighboring countries and with major international ports.
- to encourage a nationwide shift, especially from road transport, for economic and environmental reasons.

These objectives can be achieved through a long-term railway development strategy for commercializing the railway and increasing competition both within the transport market and within the railway industry, which

- involves the railway preparing and implementing a strategic business plan, approved by government, which identifies the role of the railway in each market and the investment and other resources required for implementation,
- reorganizes the railway along market-oriented rather than production-oriented lines, focussing on the main market segments (freight and passenger) and able to draw on competing suppliers, in order to implement the agreed business plan,
- separates responsibilities for commercial activities (within the railway) from regulatory oversight (within the MOT),
- defines a performance agreement between the railway and government that specifies clear rights and obligations on both sides and gives management performance targets, adequate commercial autonomy to the railway, and agreed short-term rolling plans for investment and subsidy (if any).

This strategy requires institutional reforms with the following specific objectives:

- strengthen the capacity of the railway to prepare viable business plans with

concrete programs for improving efficiency and level of service and with economically and financially justifiable investments

- establish the railway as a legally-based commercial corporation instead of a government department, reorganized in order to make designated managers responsible for (a) the financial performance of the railway in each market with (b) the authority to make agreements with other managers for provision of railway support services,
- strengthen lines of authority within and between the core business units of the railway to increase managerial control over resources,
- improve services and efficiency through introducing modern business methods, especially in costing each service provided and the infrastructure resources involved,
- spin off as independent (equitized) units peripheral enterprises which either do not form part of the core railway or which can supply railway production services more effectively as external contractors,
- place relations between the railway and government on a firm contractual basis to encourage efficiency, level of service and increased value for money from subsidy (which should be given only where this is socially or environmentally justified),
- in particular, reform the infrastructure charging system to enhance the basis of intermodal competition by distinguishing between fixed and variable costs,
- strengthen the ability of MOT to regulate the railway, through setting and enforcing safety and quality standards, defining business conditions and targets, approving investment and subsidy plans, monitoring railway performance and ensuring that any planned government subsidy and investment payments are made.

Organizational Options

In developing the long-term institutional development strategy for the railway, consideration can be given to introducing radical changes to the way it is organized. Various generic options for organizational change are described in "Options for Reshaping the Railway".[1] These options are derived from alternative ways of assigning responsibility for the basic functions of any railway, such as fixed facility ownership (track, stations, bridges, tunnels, signals, etc.), improvement, development, and maintenance; control of operations (dispatching); train movement and operations; equipment provision (rolling stock) and maintenance (workshops and depots); marketing; and financial control and accountability.

The possible ways in which these options could be implemented in Vietnam are summarized in Table 3.2.1. These can be compared in terms of such

[1] World Bank Working Paper Number WPS 926, dated June 1992 by N E Moyer and L S Thompson.

criteria as:

- start-up problems and transaction costs incurred by each option (for example, to coordinate operations and infrastructure maintenance)
- involvement of the private sector (in the provision of infrastructure, rolling stock and even management of services)
- effectiveness of achieving appropriate levels of infrastructure maintenance (no more and no less than justified)
- ability to hold each organizational unit financially accountable (and to allow the basis for subsidy to be clearly defined)
- clear definitions of markets on which to focus management attention
- administrative capabilities of railway and government.

The first option, Monolithic Railway, is the basic approach adopted in the past in Vietnam where a single organization is responsible for all aspects of railway operation and where most departments exercise undifferentiated responsibility over all services (except possibly where these are subdivided by region).

The second, Lines-of-Business option, is where separate commercial departments are responsible for different types of services (for example, passenger and freight) in order to focus management attention on the key market and cost-sensitive decisions affecting their particular aspect of railway business. Infrastructure and other support functions may be managed by separate departments, offering services on a fee basis to the main passenger and freight business departments. The VR has taken a step towards this approach by separating financing of infrastructure from operations, allowing the possibility of infrastructure being managed as a separate business.

The third option, Competitive Access, applies in those regions where there are competing railway companies which can compete to offer railway services on common tracks. This could perhaps be applied to a limited extent in Vietnam if the railway is completely split up into separate regional operating companies or if a new operator is required to operate new urban transit systems on existing VR tracks.

Table 3.2.1
Possible Long-term Organizational Reform Possibilities for Vietnam Railways

Generic Option	Possible Application in Vietnam Railway (Indicative Examples)	Advantages	Disadvantages
1. The Monolithic	Establishing VR as a commercialized corporation (with management board, directors, etc.) with minor changes to present organization. To separate regulatory and commercial responsibilities, functions such as Transport Inspectorate would be transferred from VR to MOT. Peripheral units, such as hotels and construction enterprises ,could be hived off.	(a) Minimum disruption to VR business caused by organizational change (b) Ease of coordination (for example, of operations and facility maintenance)	(a) Little incentive to develop marketing (b) Little scope for competition (c) Little scope for private sector involvement
2. Lines of Business	Establishing VR as a commercialized corporation with revised organization to separate responsibilities for different businesses (for example, passenger and freight). Each business would be responsible for marketing and for its own financial affairs. Each business could also be responsible for aspects of equipment provision and maintenance, and train movement. Other production activities would act as service functions for these business units (possibly within independent business units with separate functions such as operations control, train movements, rolling stock maintenance, etc.)	(a) Strong incentives for marketing (b) Clearer incentives to meet customer needs	(a) Involves major tasks to separate accounts and responsibility for assets (b) Requires development of costing and contract systems for infrastructure provision, equipment and support services
3. Competitive Access	Possibly splitting VR into separate regional railway companies, for example along the lines of the three regional unions, and allowing each company to compete for traffic on the same tracks. Alternatively this approach could be adopted in urban areas by new operators being allowed to provide services on existing VR tracks. The relatively small scale of VR means that there is very limited scope indeed for splitting VR into separate companies.	(a) Allows the possibility of private sector involvement in urban services (b) Possibility of competition between operators (although scope in Vietnam is very limited)	(a) Complex agreements and procedures for implementing access. (b) Complex legal and regulatory issues over liability of different operators.
4. The Wholesaler	Under this option, VR could focus its activities on production aspects, leaving marketing to other organizations. VR would offer a train operating service, as a wholesaler, to marketing organizations such as freight forwarders (the retailers) who would sell transport services to customers.	(a) Possibility of competition between marketing agencies (b) Promotion of multi-modal transport (and involvement of private sector multimodal operators)	(a) No incentives to increase production efficiency
5. The Toll Rail	This option involves the complete separation of infrastructure and operations business functions, with the operator paying charges for use of the infrastructure (in a similar way to roads). In Vietnam this could involve splitting VR into two companies, one owning, maintaining and developing the infrastructure, while the other provides transport services.	(a) Enables railways to be put on a similar financing basis to roads (b) Encourages infrastructure charges to be related closely to marginal costs for particular services	a) No increase in competition unless more than one operator provides services under an open-access scheme

The Wholesaler option would involve the railway in focusing on production activities and leaving marketing to other organizations. One possible application in Vietnam could be using freight forwarders or multimodal operators to provide container and other specialized services on the railway, by hiring the railway services as and when required.

Finally, the Toll Rail option would completely split management of infrastructure from the management of operations and the operator(s) would pay tolls for the use of the infrastructure. Such an approach would involve splitting VR into two completely independent companies, similar to the present division of VR made for accounting purposes.

As discussed in Table 3.2.1, there would be many benefits from introducing a Lines-of-Business type of organization, especially with separate companies for passenger and freight, because this would help to tackle the lack of marketing approach of the railway. The toll rail approach (combined with separation of passenger and freight businesses) could also be considered if the government wanted to separate infrastructure provision completely from other activities. The other options appear to offer little overall benefit under Vietnamese conditions (for example there are no private operators or marketing organisations waiting to offer business services in Vietnam that could be promoted by the wholesaler approach).

When considering the best option for VR, the following questions should be addressed.

- Is the Lines-of-Business approach the best generic option to develop in Vietnam or is the toll rail approach better?
- Which organizational units should be established as independent businesses? In particular, which units to combine with the passenger and freight businesses and which to leave as independent service units?
- What form of organizational relationship to establish between these businesses? In particular, should infrastructure and rolling stock provision be completely separate from the passenger and freight businesses?
- If infrastructure provision is to be separated completely from the rest, should this be a commercial corporation or a railway authority like VRA?
- How should the proposed railway businesses be organized, especially in terms of regional structure?

The main potential advantage of the toll rail approach is the introduction of competition between railway companies, which promotes more efficient services. It will be many years before competing companies could be introduced to Vietnam. Most traffic is over short distances and confined to the three regional areas of the railway unions. Therefore there seems little additional benefit from the toll rail approach compared to the Lines-of-Business approach. On the other hand, completely separating infrastructure from other railway functions makes coordination of planning and operations

more difficult and divides responsibility for safety and overall railway performance. Since there is a risk of serious coordination problems with the toll rail approach and management responsibility might be weakened, the Lines-of-Business approach is recommended as the best option for Vietnam, at least for the next ten years.

Clearly the main transport service businesses of the railway are, and will remain for many years to come, the passenger and freight businesses. Since infrastructure is shared between these two almost throughout the network there is little scope for separating infrastructure between passenger and freight businesses (just some of the branch lines used only for freight and specialized facilities such as passenger stations and freight yards). Therefore it makes sense to establish infrastructure as a separate business unit. It also makes sense to separate rolling stock provision because both passenger and freight may use the same locomotives and workshops: having separate equipment and facilities for passenger and freight would cause duplication. In the case of management of train movements too, there is a strong case for having a separate unit which coordinates activities of passenger and freight businesses (although if freight continues to decline, eventually this coordination function could be concentrated in the passenger business).

As mentioned above, completely separating the infrastructure and other support units from the passenger and freight business units would increase coordination problems. For example planning new services requires careful planning of rolling stock requirements and of signaling provision. Establishing unambiguous operational responsibility is also vital to minimize accident risks. Therefore it makes sense to keep VR as a single commercial organization rather than separating it into two or more corporations.

If however the government wished to separate infrastructure from the rest of the railway, this could be done by establishing the infrastructure unit either (a) as a corporation or (b) as some sort of railway authority, similar to VRA. Establishing a corporation would place infrastructure management at arms-length from the government and allow the maintenance activities to be carried out on a fully commercial basis, free from government bureaucratic controls apart from those necessary to establish a firm contractual basis for subsidy. This would allow competition to be developed in offering maintenance services to the infrastructure corporation and minimize the need for government to engage in commercial activities such as contracting for infrastructure-related services. If the government decided to establish a railway authority there would be a danger that the track and signaling maintenance units would remain as public service SOEs, without a suitable commercial framework to promote efficiency and control costs. Unlike roads, infrastructure costs of railways constitute a very higher proportion of overall operating costs (depending on the railway and road network, up to about 50% for railways rather than less than 10% for roads). Minimizing railway

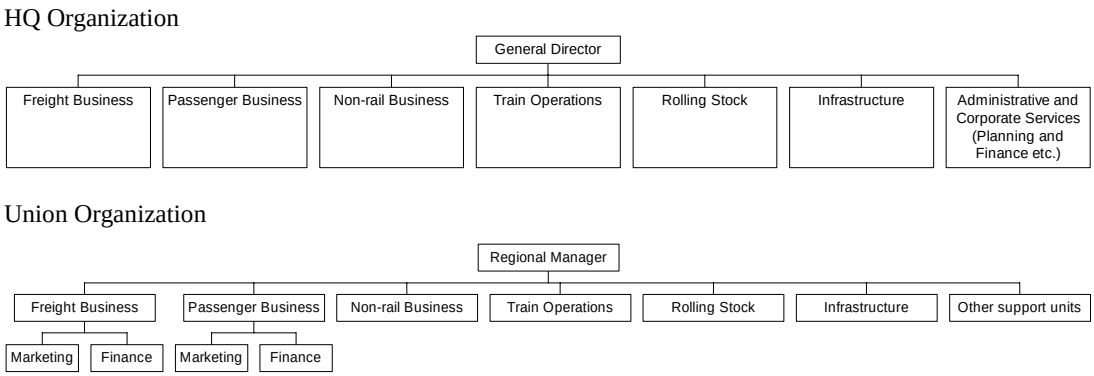
infrastructure costs is therefore vital in achieving low overall railway service costs. Therefore the track authority option should be ruled out.

One major issue that arises when considering organizational change of VR is whether or not to retain the union structure whereby the day-to-day railway activities are delegated to the three unions (at present, both for operations and for infrastructure). Other railways operate with such a regional structure and find it a useful way to delegate responsibility within the railway, although difficulties can arise over how to manage cross-border traffic (for example, how to share responsibility and to disaggregate costs and revenue). In the case of VR, this sort of arrangement appears to work well, partly because there is relatively little traffic between the areas covered by each union. Therefore no major change in the regional structure of the railway is recommended at the present time. However increasing long distance traffic could change this situation and once other organizational changes are made it may become clearer whether or not changes to the regional structure (possibly abolition, or at least reducing the number of unions from three to two) should be considered.

Implementing organizational change is disruptive to railways and so changes should only be made when the benefits of the changes outweigh the costs involved. This suggests that an appropriate approach would be to establish VR initially as follows:

- along a Lines-of-Business form of organization,
- with businesses initially separated as departments under the umbrella of a single corporation (as shown for the HQ in Figure 3.2.1),
- with the same union structure (each with a mirror organization structure).

Figure 3.2.1
Proposed Outline Organization for Railway HQ and Unions



The business units would be established initially at Headquarters by appointing an executive director responsible for each main business area (that is for freight transport and for passenger transport). Each business unit would be given the responsibility to market transport services, and the

managers would be responsible for achieving a satisfactory business outcome (such as minimum profit level). Equivalent regional units should be established in each union once clear business plans and strategies have been developed at Headquarters.

Once the railway has established efficiently functioning business units, further reforms can be considered, including the toll rail approach with a completely separate infrastructure company.

Implementing such a change will not produce much improvement unless management systems are improved. In particular business planning must be improved and basic management tools such as costing systems (to separate and disaggregate passenger and freight costs in a way that allows management to forecast changes in costs and revenue for planned changes to services, and to provide a basis for payment for use of infrastructure).

Implementing Considerations

These changes will take several years to implement and will have to be implemented step-by-step. Initially the headquarters business units could be created at the same time as the railway is established as a corporation, with a board of management and executive directors. Such a corporation would enable the new business executives to act with the required commercial freedom. To help the managers develop viable business plans, it is further recommended that the Headquarters planning unit is strengthened with modern business planning and economic skills (probably with international assistance). This in turn requires a considerable improvement in the accounting system so that costs incurred by the activities of each distinct business area can be identified and used by the business managers to assess business opportunities.

As an example of the type of analysis that can be carried out, present VR costs and revenues have been analysed to indicate possible policies for charging for infrastructure. Such an analysis, shown in Appendix H, can only give an approximate indication of the future financial situation of the railway but this example indicates the way that a comprehensive financial forecasting model can help government and railway agree on the basis for providing services.

The analysis shown in Appendix H is carried out using the future projected costs for 2010 (see Technical Report No. 6 for details) assuming that the railway invests in rolling stock and infrastructure as recommended in the master plan. Operating costs increase because of the investments made, but traffic increases considerably in accordance with the VITRANSS forecasts. Under this scenario, if fares and tariffs remain unchanged, the revenue from passenger and freight operating businesses would fail to cover even operating costs. For the particular assumptions made in this simple example, freight charges would have to increase by 40% just to cover operating costs

and make the present 10% contribution to infrastructure costs. Even greater increases would be necessary if the passenger and freight businesses were required to make a greater contribution to infrastructure costs. Not included in these simple calculations is the effect of elasticity of demand - the loss of traffic caused by increasing tariffs. In practice the increase in tariff would have to be even greater to cover costs.

The main conclusion that can be drawn from this simple example is that future planning of railway investment should be based on a realistic business plan for the railway, so that future investments give the expected financial returns. Preparation of this business plan deserves high priority if railway operations are to be sustained.

The passenger and freight business units would initially be responsible for marketing, finance and operations activities, obliging them to use the production units in the rest of the railway (the costs for which would be agreed as part of the costing system development). Eventually however the passenger and freight business units could perhaps grow by absorbing certain production units (especially production units responsible for rolling stock provision and maintenance). Such a development would increase the powers of managers to control costs and relate services to customer needs. However it requires managers to combine both business and operational expertise, and good managers with such a broad range of expertise would be hard to find in the next ten years or so. Nevertheless to enable such possibilities in the future the production units should be organized, where feasible, into units that mainly serve one or other business units (for example, the train operation and rolling stock units should at least try to separate accounts for passenger and freight operations, and the infrastructure unit should try to account separately for costs on each track section, for facilities mainly used by passenger services and those used mainly by freight).

At regional level the units could assign managers to be responsible for the financial outcome of specific sub-markets (movement of particular commodities or of passengers on particular routes). Devolving authority in this way would give a powerful incentive for better customer service and lower costs. A possible complication arises over services that encompass the area of more than one union and involve more than one service manager (for example, new long distance services between the north and south). Usually in such cases, ways can be found to resolve possible conflicts, such as joint working arrangements or establishing a special business unit to take sole responsibility for the service provided.

Summary of Proposed Strategy

In accordance with these organizational considerations the proposed long-term strategy for institutional development is to implement a Lines-of-

Business organization and to strengthen certain key areas of the railway and the way it is regulated, as follows:

(1) Review the regulatory responsibilities to ensure that these are clearly separated from commercial considerations (for example, by transferring existing regulatory functions in VR, such as the Transport Inspectorate, to MOT) and implement the railway act which provides the legal framework to regulate the railway.

(2) Establish VR as a corporation with a Lines-of-Business type of organization, with more commercial freedom but under stronger commercial pressure to utilize its resources efficiently. Two types of businesses would be defined - those responsible for providing services to rail customers and those responsible for providing support services within the railway. A suitable organization chart is shown in Figure 2, which incorporates at HQ level two business units for freight and passenger services to customers and four business units for supplying operational, equipment maintenance, infrastructure maintenance and corporate support services. Implementing this organization would require appointing new directors for freight and passenger services (instead of the existing single business director) and redefining the responsibilities of the remaining four directors. Responsibility for preparing the business plans would be given to the freight and passenger business units, who would liaise with the other business units as required and receive planning support from the corporate services business unit.

(3) The freight and passenger business directors would each be responsible for marketing, finance, operations and human resources within their business sector. Their units would pay fees to the other business units for support services that they require in accordance with costing and contractual procedures that would be developed by the railway (with support from international agencies). The directors of support units would be responsible for accounting for resources that they deploy and would be able to offer services outside the railway. The operations unit would be responsible for train dispatch and control, in order to coordinate movements of all types of trains, but not for managing train operations, which should remain with the passenger and freight business units to enable them to have close control over the resources they deploy (the rolling stock operations and crew costs).

(4) Once the VR business plan has been developed, the capacity of the regional unions to manage each business should be enhanced by appointing equivalent managers responsible for regional activities of each business unit (reporting, for day-to-day concerns, to a regional manager). These regional managers would be supported by service managers who become responsible for the financial performance of individual services or routes. To strengthen lines of authority and responsibility and eliminate duplicating administrative activities, the various semi-autonomous state-owned enterprises which are required to run the core railway should be

absorbed into, or placed under, the appropriate business unit, and given clear duties. The ultimate number of regions or unions required can be adjusted in accordance with development of the railway business and the philosophy of management. Initially the present three union structure should be adopted to avoid unnecessary organizational change.

(5) State-owned enterprises that are not required within the core railway (either because they only carry out peripheral activities or because their services can be supplied as an external contractor) should continue to be equitized. External contractors such as construction units, specialized workshops, material supply and passenger catering services can be created in the short-term. Other contractors such as rolling stock maintenance units can be established later once experience with contracting techniques has been developed.

(6) Implement institutional strengthening measures in the core railway to
- bring the accounting system fully up to international standards with separate accounts for each business (freight, passenger and non-transport)
- introduce management information systems to allow managers to make decisions based on realistic estimates of costs and revenue,
- implement, in particular, a costing system that estimates the real cost of providing particular services (different types of freight and passenger) on particular lines or routes (allowing the viability of low-traffic rail lines to be assessed) to provide a basis for business management decision-making,

(7) To establish a performance agreement between railway and government that promotes efficiency, level of service and value for money:
- review the basis on which VR pays government for infrastructure use in order to relate it more closely to marginal costs (for example through replacing the current 10% of revenue with a fixed annual charge plus a smaller proportion of the revenue, charged to each operating department in proportion to use made of infrastructure)
- develop the current infrastructure charging system to enable users to be charged for the actual infrastructure costs they incur (allowing consideration eventually to be given to separating management of infrastructure and of operations)
- identify which services or infrastructure costs are to be paid for by government
- where appropriate, define clear management targets such as minimum rate of return on capital and minimum service levels for subsidized services
- otherwise remove remaining business constraints such as tariff controls imposed on the railway.

(8) The MOT should work with international agencies to assist the VR in preparing its business plans, involving
- development of management information systems and management tools such as costing models,

- development of business planning methods, especially traffic and financial forecasting models,
- training on economic analysis and market-related disciplines, focussing on economic analysis and market-related disciplines such as cost accounting, marketing, MIS, corporate and business planning/financing.

Meanwhile, in the short and medium terms, VR can improve the marketing of its services through introducing improved passenger-ticket sales and reservations systems, door-to-door freight services, scheduled freight services, tourist travel packages and much better passenger information.

3.3 Inland Waterway

Issues

1) Lack of clear policy toward inland waterway transport

There is a particular lack of clarity in transport policy toward the inland waterway sector. Relatively little investment has been allocated to the subsector, especially in the Red River Delta where navigation is constrained by seasonal factors. A clear definition of the expected role of inland water transport based on the recommendations of this study would help to plan and develop the subsector.

2) Inadequate legal framework for the subsector

There is no inland waterway law or act and transport activities are governed by a variety of rules and regulations. Some of these regulations are obstacles to efficient operation - for example, transport licenses can specify particular routes that vessels can operate on to avoid them using unsuitable channels. These restrictions limit use on other suitable routes, reduce utilization and increase costs.

There is concern about the many unregistered small vessels, including many home-made, which are involved in river accidents. Operators complain that unregistered boat operators undermine competition in the transport business by not paying proper taxes and waterway fees.

Other licensing problems are the short validity of transport licenses and the minimum financial requirements which increase entry costs into the business.

There is no clear legal definition of the extent of responsibility and authority of VIWA because of overlap with the maritime responsibilities of VINAMARINE. The MOT is fully aware of this difficulty and is drafting a decree to clarify the division of responsibilities.

3) Weak market mechanisms

There are still many state-owned transport operators, especially in the supply of services using large vessels, over 100 DWT. Traditional customer/transporter relations continue and so competition is not fully developed. The private sector is mainly small scale, operating vessels below 100 DWT in most cases. According to the VITRANSS survey, it carries large proportions of traffic, not only in the Mekong Delta but also in the Red River Delta (where it seems to be carrying the majority of traffic).

There are reported to be few if any large private ship repair or construction yards, at least in the north, and there is no significant private construction industry. More rapid development of the private sector is hampered by the slow rate of progress with equitizing transport operators and difficulties in obtaining credit.

4) Poor port management with weak incentives

Ports offer poor service and are considered by operators to be a major problem. The facilities are dirty and there are frequent service delays. Stevedoring and other services are not provided on a contractual basis, so there is little competition.

5) Inadequate mechanism for financing infrastructure and enforcement

VIWA has, in general, poorly developed management systems, including budgetary and financial planning systems. Waterway development and maintenance are financially constrained. There is no mechanism for improving efficiency of maintenance and construction, such as through contracting. Revenues from waterway users (mainly fuel tax receipts, but also waterway fees for vessels) are estimated to cover maintenance costs, but to develop the network would require increased user charges.

The present fee collection rate of the VIWA river stations is often low and the cost of collection represents a high proportion of revenue.

6) Weak PTAs

The provinces are responsible for providing the rural water network and play an important role in monitoring the sector and implementing plans. However they lack basic management tools and training.

7) Weak VIWA

The organization is still split into two parts for historic reasons, which leads to inefficient administration. VIWA lacks modern management systems of all

kinds - for example, for budgeting/financial planning, managing computer databases, maintenance of infrastructure, and business planning. Safety is considered an important issue; many accidents are caused at nighttime by the lack of navigation lights, by the operation of home-made boats that have not gone through the proper registration process, breaking of water rules, and excessive speed of small vessels using high-powered engines. However, safety programs are poorly developed.

Objectives

Long-term goals in the subsector are as follows:

- To establish an integrated inland waterway network with land and maritime transport systems, so that inland waterways can further expand their potential roles, at the same time supplement the services of other modes.
- To develop a more sustainable mechanism to develop, maintain and operate inland waterway infrastructure facilities and transport service through institutional reform, better financing system and more involvement of the private sector and local government.

Strategies

1) Define clearly the role of inland waterway transport

   To enable the inland waterway subsector to play its appropriate role, the following measures should be taken:

   - the MOT should establish a clear policy framework for the subsector using, as a starting point, the VIWA policy statement prepared this year,
   - the extent of VIWA's responsibilities in managing the river network should be defined clearly to remove the possibility of overlap with the maritime sector.

2) Promote the private sector in inland waterway services

   There is scope for increased involvement of the private sector, involving the following measures:

   (1) accelerating the equitization process, especially in transport operation, waterway construction, port management, ship repair and construction, and other support services, such as freight forwarding, although reorganization and splitting up of enterprises, leasing major facilities or selling off assets may be necessary to make acquisition of larger enterprises feasible,
   (2) adopting programs to encourage private involvement in the subsector, especially through tendering design and construction work and contracting

port services (and possibly transport services presently provided by own-account fleets),

(3) reviewing the vessel registration system to improve the basis for competition, safety and to increase information about the small-vessel fleet,

(4) simplifying the licensing system further to reduce costs of administration and costs to operators, especially by defining network access of vessels in terms of the class of waterways instead of specific route (the recent scrapping of all transport licences under Decree No. 19/2000/ND-CP dated February 3, 2000, offers a good opportunity to simplify the licensing system - no further transport licence is required provided safety and environmental standards are maintained through effective crew licensing and vessel registration/inspections,

3) Improve the administrative framework

As identified in the Canada-Vietnam institutional strengthening project, improvements are required in the VIWA organizational structure, budgeting and finance systems, traffic management and vessel inspection capability, infrastructure management, contracting methods, development of technical standards, and management information systems. The recommended strategy is to implement improvements in all these areas through various pilot projects over the next three years before developing a nationwide development plan to implement improvements in subsequent years. This requires the following short-term institutional strengthening measures to be implemented as pilot projects:

(1) implement the proposed new unified organizational structure for VIWA,
(2) develop new management information/statistics systems for planning and monitoring purposes,
(3) improve management and business planning methods,
(4) improve financial forecasting methods (based on realistic funding requirements),
(5) improve fee collection system
(6) plan traffic control plans and need for navigational aids,
(7) improve vessel certification/inspection methods,
(8) develop and implement a framework for contracting construction and maintenance work, with procurement standards and guidelines,
(9) develop an environmental monitoring plan, and
(10) produce and adopt a waterways maintenance plan.

In the longer term, improvements in all these areas would be implemented throughout the country.

Parallel to these improvements within VIWA, river port administration should be reformed to give port operators incentives to offer good service at

minimum cost and to transfer ownership from central to local government. Again a suitable strategy would be to implement a series of pilot projects to try out the ideas and refine the proposals before implementing more widely. This would require, in the short term:

- transfer ownership of port assets to provincial governments, to be administered by local port corporations,
- the corporations initially negotiate management contracts with the NOWATRANCO/SOWATRANCO enterprises,
- if required the corporations make contracts with other stevedores to provide services,
- the port corporations develop the infrastructure and monitor the performance of management,
- if required the corporations negotiate lease or rent contracts for the operation of certain port facilities to other companies.

Such a scheme should ideally be implemented in conjunction with the MOT's equitization program to provide the institutional framework for increased commercialization and competition (for example, by equitizing port management and keeping fixed assets under government ownership).

4) Improve the legal framework

To provide the overall framework for regulating the subsector:

- the Vietnam Inland Waterways Management Law should be drafted and implemented based on policy guidelines approved by the MOT,
- existing regulations should be reviewed in the short term to identify scope for simplification and the need for strengthening (where broader vessel registration requirements and/or higher technical standards consistent with international agreements could achieve benefits that outweigh the costs involved) and new or modified regulations introduced to define standards, procedures and operational guidelines,
- in particular, unnecessary transport licensing regulations should be scrapped to reduce business obstacles as described above,
- reviewing legal requirements to place maintenance/construction and general administrative functions on a sustainable financial basis (possibly through a waterway fund), and
- implementing further laws and regulations which establish administrative responsibilities as required by the institutional changes being introduced.

3.4 Maritime

3.4.1 Strategy for Shipping

Issues

1) Weak competitiveness compared with foreign shipping companies

Large-scale shipping operators, all state-owned, find it very difficult to compete with foreign shipping operators because the latter are more efficient, use modern ships, have experienced management and established links with customers and marketing agents. They have tried to develop new services (using containers and other modern handling methods) and have invested in new (second-hand) ships but they are losing market share. Profit margins of VINALINES ship operators have decreased during the 1990's to 0-4% of turnover in 1997. Under ASEAN trade agreements to be implemented in future years, competition will intensify, placing strong pressure on Vietnamese operators to improve efficiency and creating opportunities for regional expansion of Vietnamese shipping companies that are able to capitalize on their comparative advantages such as low labor costs.

Faced with strong foreign competition, the business environment in maritime shipping is considered by Vietnamese operators to be uncertain and difficult, especially so for smaller operators outside VINALINES because they lack the influence and lobbying power of this dominant corporation. Their interests are represented through the Vietnam Ship Owners Association, but this organization is dominated by VINALINE members.

Four joint ventures with former Soviet Union partners were dissolved in recent years because they were not profitable enough. Current joint-ventures of VINALINES are relatively profitable. These developments have tended to concentrate the shipping industry still further within VINALINES. Provincial government-owned operators are not developing and some are reported to be in serious financial difficulties. Many may be liquidated soon and their overall role could decrease. The cooperative sector also is not developing. However, the private sector is increasing dramatically in size, but from a very small base (3% of capacity in 1996 to 6% in 1998) and deploying almost entirely small vessels with less than 500 DWT capacity.

2) Lack of level playing field in coastal shipping

The lack of finance for purchasing new ships is a serious constraint and state operators can receive assistance from VINALINES through credit guarantees. The state sector purchases second-hand foreign vessels (usually about 10,000 DWT) using bank loans, secured partly against their own asset base. The private sector purchases mainly new Vietnamese vessels with about 500 DWT and appears to fund investment from revenue and other sources outside the transport sector.

Members of VINALINES may benefit from additional support. For example, the Ocean-River-Going Corporation was saved from bankruptcy by transfers

of ships from other VINALINES members (VINALINES has the power to transfer the amount invested with state capital, while the members must be compensated for the value of assets financed with reinvested profits). Each member contributes 0.3% of its revenues to VINALINES which provides a fund of about (VND 7 billion, or US$ 500,000) for supporting members. Since ports earn much more profit than shipping enterprises, there is a danger of cross-subsidizing shipping operations from profits earned in ports.

3) Strict regulations to entry into the industry

Following the recommendations of the Coastal Shipping Master Plan Study (1997), regulations have recently been liberalized to some extent - for example:

- sea vessel procurement procedures have been simplified (Government Decree No 99/1998/ND-CP dated 28 November 1998) to enable procurement permission to be given without the purchaser contacting several government agencies,
- specific regulations have been introduced defining more clearly the basis for allowing private operators to participate in the shipping industry (Government Decree No 40/ND-CP/1998 dated 10 June 1998), and
- procedures to license passports for crews have been simplified and many unnecessary paper requirements have been removed (Government Decree No 91/CP dated 23 August 1997). The same decree removes previous restrictions on foreign-owned ships that are registered in Vietnam offering domestic coastal shipping services.

However, Government Decree No 40/ND-CP/1998 only applied to private operators, not to state operators, which remain outside the licensing regime. Minimum financial requirements are high - for example, VND 10 billion (US$ 700,000) of legal capital to receive a license for regional international shipping services - which increases entry costs into the business. (This licence has now been scrapped under Decree No. 19/2000/ND-CP dated February 3, 2000).

4) Unfavorable environment for foreign investment in coastal shipping

Despite the removal of vessel registration restrictions, under existing foreign investment law it is still very difficult in practice for Vietnamese shipping companies, with part foreign ownership, to be established. In particular, foreign investment laws make it difficult for Vietnamese-registered ships with minority foreign ownership to engage in coastal shipping. Under MOT Decision No 2054QD/PC dated 6 August 1996, on conditions for issuing permission to foreign shipping companies to operate liner services from Vietnamese ports (especially in the domestic market), VINAMARINE can set various conditions and, in practice, enforces minimum price floors to protect the Vietnamese

shipping industry.

Even in the ship agency business, government policy is extremely restrictive toward foreign involvement. In contrast to other ASEAN countries, such as the Philippines and Thailand, Vietnam requires foreign shipping companies with a representative office in Vietnam to use a Vietnamese rather than a foreign shipping agency as its general agent to supply maritime agency services.

5) Constraints in freight forwarding business

On the other hand, the freight forwarding business in Vietnam is developing, is quite competitive, and there is an active Vietnam Freight Forwarders Association. However, the industry is still handicapped by various constraints such as:

(1) lack of a legal basis for freight forwarders to act as principals or multimodal transport operators (MTOs) who are responsible for cargo transported by more than one mode of transport. Rather, each carrier is separately responsible to the cargo owner under the general provisions of the Ordinance on Economic Contracts (1989),
(2) lack of other legal provisions in Vietnamese law in accordance with international practice (especially various ESCAP, ADB and UNCTAD proposals), lack of legal frameworks for road, inland waterway and railway transport, outdated maritime law provisions (the legal liability is defined in terms of an obsolete unit of currency used in colonial times rather than the conventional SDRs), and the lack of ratification of certain international conventions, such as the Hague Rules and Hague VISBY Rules, concerning bills of lading, provisions concerning certain maritime transport aspects about regulating ships and defining liabilities in case of ship collisions and oil spills,
(3) complicated licensing procedures which have required freight forwarders to have several licenses which have to be renewed frequently, potentially one for each ship agency agreement from VINAMARINE, one for freight forwarding from the Ministry of Trade, one for trading activities from the Ministry of Commerce, one for air cargo handling from the CAAV, one for express mail handling from the General Post and Communications Department, one from the VRA for road transport operations, and one for customs brokerage from the General Customs Department - however the situation has been considerably simplified following the scrapping of licences under Decree No. 19/2000/ND-CP dated February 3, 2000.
(4) insufficient coordination among the MOT, Ministry of Trade, MOF, General Customs Department over policy matters to establish regulations and procedures for handling trade and transport matters (the customs department does not appear to understand the role of freight forwarders in efficient transport),

(5) lack of insurance cover from Vietnamese insurance companies for goods handled by freight forwarders,
(6) restrictive policies on foreign freight forwarding firms in Vietnam.

6) Limited potential for equitization in the maritime sector

Current plans for equitizing members of VINALINE are limited to the service agencies. Although VINASHIP and other shipping companies are not excluded from the equitization process it is difficult see how they can be equitized because of the large amount of capital involved.

Nevertheless, some progress with equitization has been made. The GEMADEPT Container Transport and Forwarding Company was equitized back in 1993. Since the issue of Government Decree No 44/1998/ND-CP dated July 26,1999, three small maritime enterprises under VINALINES have been equitized: the Safi Stock Company, which is part of VOSA, the INFACON forwarding company which was part of the Southern Container Company, and INLACO (International Labor Cooperation Company) in Haiphong. According to VINAMARINE, the provincial government-owned Binh Dinh Ship and Boat Enterprise has also been equitized. A further 17 enterprises have been proposed for equitization in 1999 (eight under the MOT and the rest under other ministries and local governments). Included in this list are five VINALINES organizations (a) another part of the Southern Container Company, (b) Cargo and Passenger Transport Service Enterprise which is part of the Sea Transport Company III, (c) Hai Au Shipping Company which is a member of VOSCO, (d) Service Supply and Import/Export Enterprise which is member of VITRANSCHART, and (e) a branch of the Southern Container Company in Danang. As found elsewhere, there are financing difficulties which make progress difficult.

7) Strengthening regulatory capacity of VINAMARINE

Significant achievements have been made to strengthen VINAMARINE's regulatory capacity based on the Coastal Shipping Master Plan recommendations, including passing new regulations basing minimum technical standards of vessels on the MARPOL and SOLAS conventions, strengthening the vessel inspection system (to meet the conditions in the Tokyo Memorandum of Understanding (MOU) concerning Port State Control in Vietnamese ports) and implementing the STCW Convention on training standards and licensing of seafarers.

Under the institutional strengthening project financed by Canadian CIDA, important steps have been taken to identify needed changes to maritime law and regulations, define improved management procedures and propose mechanisms for deciding liability and compensation arising from oil spills. Specifically, VINAMARINE is studying the implications of Vietnam's

participation in the Convention on Civil Liability of Ship Owners for Oil Pollution (CLC92) and the Convention on the Establishment of an International Fund for Compensating Damage caused by Oil (FC2).

New regulations intended to strengthen enforcement of maritime safety have also been submitted by VINAMARINE to the MOT, and new procedures are being developed to tackle problems associated with environmental pollution from ships. However, there are important bottlenecks preventing implementation of policy, including the following:

- legal provisions for arresting/inspecting vessels in Vietnam have not yet been defined,
- financial constraints have limited implementation of several needed improvements (including drafting legal documents and translating important English documents into Vietnamese),
- lack of management information systems (for example, about characteristics of joint venture and other shipping operators)
- lack of human resources, especially among technical specialists (most of whom are still handicapped by an inadequate English ability). There is a particular need for training many more Port State Control inspectors because many Vietnamese vessels fail to meet minimum international technical standards.

Objectives

Institutional development in the subsector aims:

- To establish a more liberalized and competitive environment for the entry and operation of Vietnamese shipping companies in domestic shipping transport.
- To promote safety and environmental concerns in the maritime transport sector through accession to and enforcement of international conventions and national standards, rules and regulations.
- To modernize the Vietnamese shipping fleet and increase its international competitiveness.

Strategy

The long-term strategy for the development of coastal shipping set out in the Master Plan Study on Coastal Shipping Rehabilitation and Development Project in Vietnam (JICA, March, 1997) forms a starting point for defining the strategy for the maritime sector. The following strategy for institutional development draws on this study, where appropriate:

1) Liberalize shipping operations further

The strategy for liberalization of the shipping industry was set out in the

Coastal Shipping Master Plan Study. There is a need to promote more competition within the domestic coastal shipping market which is still dominated by VINALINES enterprises. In the long term, the main competitor will be small private operators but these are unlikely to have sufficient numbers of large ships, so it is important to ensure competition between VINALINES members in addition to encouraging more private operators to enter the business. This calls for a strategy in which:

(1) MOT clarifies the extent to which different parts of the maritime transport industry are to be regarded as strategic and not open to equitization (especially those parts mainly engaged in coastal shipping, such as provincial shipping companies, and those enterprises within VINALINES, such as VINASHIP, that specialize in coastal shipping),
(2) non strategic shipping company enterprises within VINALINES (together with other state enterprises and provincial companies outside VINALINES) are either (a) equitized as independent commercial entities, preferably with fully private ownership, or (b) if this cannot be achieved due to government policy or lack of finance, then at least VINALINES should adopt a passive ownership role which is limited to requiring a satisfactory return on assets, and avoiding direct intervention in management or allocation of resources,
(3) any unviable state-owned shipping enterprises are liquidated as soon as possible and the assets auctioned off for the vessels and other assets to be utilized by the private sector,
(4) VINAMARINE reviews competition in the coastal shipping market and obstacles to the development of more competition (such as excessive entry costs into the business, discriminatory license conditions between state and private operators, lack of finance for private operators, etc.) and seeks support from government and international financing agencies to develop a program, in consultation with the shipping industry, to increase private sector involvement in coastal shipping (simpler and more transparent regulations, finance, information, training, encouraging more joint ventures etc.),
(5) in particular, VINAMARINE, monitors the use of any special support given to VINALINES to develop its international shipping capacity to ensure that this does not distort competition in coastal shipping (if necessary, this could involve forcing VINALINES to sell off assets not needed for its international shipping business, allowing the highest bidder to purchase them for other purposes),

2) Strengthen VINAMARINE (shipping aspects)

A number of measures are required to allow the MOT and VINAMARINE to assume their responsibilities to develop the regulatory system for maritime transport, as follows:

(1) Improvement in management information systems in areas such as characteristics of shipping operators and the services they provide, so that

VINAMARINE can monitor utilisation and competition in the industry (this would have to include the use of sample survey techniques to estimate the role played by small-scale operators),

(2) Improvement of training programs and staffing levels for technicians, Port State Control inspectors, administrators, especially in use of new types of equipment, in computers and in foreign languages.

(3) Management training on maritime law and international conventions.

(4) Developing of VINAMARINE's capacity to engage in dialogue with maritime transport users, the Vietnam Shipowners Association and government agencies involved in maritime transport (such as the customs department), to disseminate information about maritime regulations to promote enforcement of the law and efficient, safe and environmentally suitable use of seaways and infrastructure, and to tackle in a coordinated way the various procedural problems that inhibit the private sector.

3) Develop the legal framework

Although the basic legal framework is in place there remains a need to make changes and broaden the scope of the legal framework to support the strategies proposed above, as described below.

(1) Some regulations defining management processes in key areas such as arresting/inspecting vessels and handling compensation claims arising from oil spills,

(2) Remove unjustifiable restrictions on involvement of foreign maritime companies, eventually allowing foreign direct investment in shipping, and in the short term, abolish restrictions on foreign shipping companies using Vietnamese ship agency services.

4) Strengthen related industries

The Vietnamese coastal shipping industry requires the supply of low cost vessels, particularly vessels with capacity between 1,000 and 5,000 DWT. These can either be supplied from overseas sources or, if they can be economically produced in Vietnam, by domestic shipyards. The latter possibility could be one important component for the long-term strategic development of the Vietnamese shipbuilding industry to complement the main focus on ship repair activities which, as industry analysts suggest, could be an internationally competitive business due to the high labor component (typically 65% of ship repair costs are labor compared to only 30% for shipbuilding), as described in "Study on Economic Development Policy in the Transition toward a Market-oriented Economy in Vietnam (Phase 2)", JICA, November 1997.

3.4.2 Strategy for Ports

Issues

1) Weak policy-making and planning

Policy-making and national port planning is weak because there is a lack of coordination between various ministries involved, so the MOT does not have a comprehensive overview of the need for investment and the effectiveness of investment by other ministries and local government organizations. The apparent weakness of the MOT and its subsector agency, VINAMARINE, to carry out national port planning is a very serious problem because there is a danger that ports will be developed without proper consideration of overall costs and development implications (for other infrastructure, for regional development policies, etc.). This problem is recognized by government and resulted this year in the issuing of Government Decree No 588/VPCP-CN dated February 8, 1999 to support the authority of the MOT and VINAMARINE to plan ports in the HCMC area.

VINAMARINE's ability to develop plans for submission to the MOT is constrained by a lack of clear oversight authority (there is no clear demarcation of responsibilities between VINAMARINE and VIWA for infrastructure development and management). Because of its perceived weakness in planning ports, VINAMARINE finds it difficult to obtain information about port plans being developed by other organizations.

2) Unclear responsibilities and authority

Port investment management is not always delegated to VINAMARINE as allowed in law. In practice, investment is often managed by the MOT rather than VINAMARINE, contrary to the principle of decentralizing such activities.

The separation of regulatory and commercial functions has not yet been completed in the maritime sector, with VINAMARINE retaining management of three main ports, following the transfer of five others to VINALINES. The transfer of responsibility to VINALINES cannot be considered a satisfactory arrangement because it means that the main shipping operator is also the main operator of all the main public ports. Further reorganization is clearly necessary to separate the shipping and port interests of VINALINES.

A clear demarcation of responsibility and authority is required between the regulatory/planning concerns of VINAMARINE and the business concerns of public port enterprises - for infrastructure planning and development, for intra-port operations, such as port handling, and for external port operations such as pilotage.

Port management is too centralized with insufficient autonomy and delegation of authority at local level. There is little involvement of the private sector. Moreover, there is no national shippers council in Vietnam which can represent the views of users on port planning and other related issues.

Ports are not generally allowed to operate as commercial organizations with freedom to offer services and set prices in response to customer demand and the need to recover returns on investment. The low cargo handling efficiency of Vietnamese ports discourages deployment of efficient shipping services and development of containerization.

There is insufficient coordination between various government agencies in the ports to offer smooth flow of goods. Customs and other procedures are unduly complicated and time-consuming. Delays to cargo are excessive.

3) Inappropriate bases of port charges

Port charges set by government discriminate between international and domestic traffic and between foreign and Vietnamese operators. They do not encourage efficient use of port facilities. For example, waterway or tonnage charges are always levied on a per-trip basis instead of on an annual basis, which severely handicaps liner operations. This results in effective charges per ship call in Saigon port being about three times those in Bangkok and other Asian ports (partly due to higher navigation charges associated with the longer access channels in Vietnam - see Table 3.4.1). In practice, inefficient port service results in excessive times spent by ships in Vietnam ports (often twice as long as other ports in the region, although this is partly due to navigational constraints caused by the limited draft of the channels). To expedite port processes, shipping companies often have to pay additional unofficial charges, which may be easier for foreign shipping companies than Vietnamese ones to pay.

Table 3.4.1
Comparative Charges paid by Foreign Ships at Saigon and Bangkok

Charge	Amount Paid per Ship Call		
	Saigon	Bangkok	
	US$	Baht	(US$)
Tonnage Dues	1,410	83,650	2,390
Channel Dues[(a)]	3,970	1,600	46
Pilotage Dues	4,010	20,360	581
Towage	800	20,000	571
Dockage	1,110	7,310	209
Others	210	450	13
TOTAL	11,510	133,370	3,810

NOTE (a) Known as Maritime Safety Fee in Vietnam
SOURCE: NYK Line

4) Unrefined equitization procedures

Although government plans to equitize some maritime ports (initially Dong Nai and Ben Nghe in HCMC), raising finance is very difficult because of the huge investments involved. The equitization procedures have not yet been refined into workable rules for successful transfer of ownership of large entities such as ports.

5) Uncertain financial sources for improvement

There is uncertainty about the scope for raising finance for developing the ports, especially through involvement of the private sector. Although there have been plans for BOT type projects, no such projects have been implemented yet and the regional economic decline has reduced their attractiveness.

6) Unqualified staff

VINALINES consider that the ports have perhaps twice the number of staff that are really required. Many of these staff are unskilled. Adopting new cargo handling techniques will require training for some of these, but many of the older ones will probably not be suitable for training. How to deal with the surplus labor in these and other SOEs is a major social issue in Vietnam.

Despite the surplus of unskilled staff, ports have a shortage of qualified professional port managers, engineers and supervisors. Staff have insufficient knowledge of the latest cargo handling techniques.

There is a Vietnam Port Association but this does not seem to be as effective as it could be in promoting professional standards in the industry. VICT, the new private container port in HCMC, applied to join earlier in the year but there has been absolutely no response from the association.

7) Unreliable industry data

Management information is unreliable, lacking in required scope, detail, consistency, and timeliness. Better, computer-based information is needed both for port managers to assess their operational and financial performance and for VINAMARINE to monitor safety/environmental standards, competition, fairness of treating users, and utilization of infrastructure. Basic information such as ship queuing and service times are routinely collected but are not presented to decision-makers in a useful way.

Objectives

- To establish a competitive, autonomous and effective port management

system so that ports can respond to the changes and needs of the market flexibly and timely.

- To strengthen planning and regulatory oversight of ports to encourage market forces to play an effective role in promoting efficiency, while meeting minimum safety and environmental standards.

Strategy

The long-term strategy for development of coastal shipping, set out in the Master Plan Study on Coastal Shipping Rehabilitation and Development Project in Vietnam (JICA, March, 1997), forms a starting point for defining the strategy for the maritime sector. The following strategy for institutional development draws on this study, where appropriate.

1) Commercialization of port management

At each public port, once the role of the port has been decided, responsibility and authority for port management must be devolved to an organization free to respond to customer requirements without interference from government other than those concerning safety/environmental matters and the need to compensate government for any state assets provided.

In principle, this can be achieved by equitizing the ports and allowing managers to take full responsibility for their activities. However, there is no clear plan for this and there are likely to be major obstacles in finding investors willing to purchase the shares. Government may also decide to keep shares in some cases, especially for certain general purpose ports that are of importance to the country's economic development. The following proposed long-term strategy is intended to reduce uncertainty and allow effective devolution of management authority even if obstacles to equitization remain in the long term:

(1) Government must establish a clear policy on future management of ports based on the following five principles: (1) encouraging commercial autonomy for each port, (2) separation of public port and shipping interests, (3) competition both between and within ports, (4) a clear demarcation of responsibilities between MOT/VINAMARINE and the ports, with (5) maximum involvement of the private sector.
(2) Port autonomy can best be achieved by either (a) equitizing the main eight public ports with boards of directors responsible to shareholders (if necessary, keeping the shares in central/local government hands, preferably under the General Department for Management of State Capital, whose sole concern would be to maximize the return on state investment rather than to attend to transport policy matters), or (b) establishing each port as an independent corporation with directors

responsible to a management board (including representatives from local government to help coordinate activities with other local organisations),

(3) Separation of shipping and port interests would automatically be achieved by establishing the ports as independent corporations (or even equitization them, keeping most shares in state hands). If ports cannot be made independent, consideration should at least be given to splitting VINALINES into two parts - one for supervising the ports and the other for supervising shipping. However, it is important that ports be given sufficient autonomy to fulfil their role, with minimal interference in business affairs by the overseeing body.

(4) Competition between ports can be achieved by continuing to allow port development by various groups in the HCMC-Thi Vai-Vung Tau area, the Haiphong-Cai Lan area, and the Tien Sa-Lien Chieu area near Danang. However to avoid wasteful duplication of resources, major investments should be planned and approved by VINAMARINE, taking account of the expected role played by each port.

(5) Demarcation of planning/regulatory and business activities can be achieved by giving clear responsibility to (a) VINAMARINE for strategic port infrastructure planning, based on the business plans of the separate ports, and safety-related activities such as Port State Control, and (b) ports for business development, customer service, cargo handling, warehousing, bunkering, pilotage, and other port-related services.

(6) Separation of port ownership and operations is being considered by government. However there are no inherent advantages in keeping infrastructure under government management - on the contrary, there are potential problems such as greater risk of mixing commercial and regulatory functions. Furthermore establishing an agreed basis for renting/leasing port facilities is not easy under Vietnamese conditions, especially if operators are required to accept obligations to existing labor. The main benefit of this approach is that it provides a means of introducing competition into ports, for example through introducing new operators for particular facilities. It may even enable introduction of private investment and modern operating methods (as has already occurred in Saigon Port). It is therefore recommended that the concept of separating ownership and operations is seriously considered when new investments or handling techniques are proposed (see Appendix I for further details).

(7) If ports are given commercial autonomy, they would have the incentive to attract customers and develop services using the private sector, subject to financial constraints (including paying for provision of infrastructure at each port). The development of the private sector could be further enhanced if ports are reorganized during equitization or corporatization, to create independent units responsible for handling and other services which offer services under contracts. Despite increased commercial autonomy, VINAMARINE would retain control over infrastructure investment at these ports, thus avoiding the need for any other overseeing body such as VINALINES.

To implement this strategy would require the following steps:

(1) The MOT clarify port development policy to improve efficiency and customer service at Vietnamese general purpose ports, based on the principle of commercial autonomy for ports within a development framework and strategic plan established by VINAMARINE.
(2) Require management of state-owned general purpose ports to develop short- and medium-term business plans consistent with this policy, aimed at (a) increasing future levels of customer service (such as ship service times), (b) improving operational efficiency (such as handling rates), (c) reducing costs (port charges) and (d) achieving minimum standards of financial performance (such as return on assets). Specific achievable targets for key operational/financial indicators should be defined for each future year.
(3) As part of these business plans, to promote institutional reform and involvement of the private sector, specific plans would have to be drawn up for (a) contracting-out handling and other operations and (b) allowing private stevedoring and other service companies to be authorized to offer services within the ports.
(4) Major investments proposed would be reviewed by VINAMARINE to confirm that they are in accordance with the overall port development plan and can be financed (with charges proposed by ports in order to achieve clearly defined levels of profit reinvestment).
(5) Controls on port charges would be removed, but VINAMARINE or the Government Pricing Committee would monitor them in case monopoly abuse occurs.
(6) VINAMARINE would monitor overall performance of all ports to assess the extent to which the ports are fulfilling their planned role, especially to anticipate where future capacity bottlenecks occur or where efficiency improvements are not being achieved that may require policy action.
(7) Meanwhile the ports should be established as independent corporations with management boards (which include members from local government and user interest groups, who would hold the port management to account, based on the extent to which the expected business plan results are achieved).
(8) The current program of port equitization should be monitored to assess the scope for transferring ownership of ports under present equitization rules and procedures. From the experience gained, modifications to the equitization procedures could be considered and introduced for the longer-term equitization program.
(9) Competition between ports should be enhanced by continued encouragement to private investors (for example through public-private partnerships), by preparing clear plans for future port needs and government port investment plans and simplifying the procedures for joint ventures and BOT schemes.

(10) To separate planning/regulatory and business activities the MOT and the Government Pricing Committee should cease to set fixed port charges, and allow more efficient charges to be set at each port. However, VINAMARINE should continue to monitor the charges to compare costs and efficiency at different ports and thereby monitor the effectiveness of government policies to promote competition and improve efficiency.

(11) Meanwhile, port management should be strengthened through the introduction of modern tools, such as port information management systems, especially to develop port charging systems that relate charges more closely to costs (after allowing for factors affecting "what the market will bear").

(12) In addition, the MOT should work with international agencies, the Vietnam Port Association and other interest groups, such as the proposed Vietnam Shippers Council, to define professional qualification standards for port managers, and future appointments should be made based on these standards.

2) Clarification of planning responsibilities and strengthening planning capacity for ports and other maritime infrastructure

A number of measures are required to clarify responsibilities in planning and to allow the MOT and VINAMARINE to assume their responsibilities for developing short- and long-term plans for maritime transport, as follows.

(1) To allow comprehensive plans to be developed that take account of all port requirements, not only for general purpose ports presently under MOT, but also for specialized ports under other ministries, ports under local government and privately developed ports, government should clearly define national maritime planning responsibilities (building on the experience gained following the implementation of Government Decision No. 588/VPCP-CN dated 8 February 1999 for clarifying investment management responsibilities for ports in the HCMC area).

(2) In particular, the administrative arrangements for VINAMARINE and MOT to develop maritime infrastructure plans should be defined so that these organizations have access to the information they need, such as the port development plans being developed in other government agencies, to evaluate properly alternative development plans (based on analysis of all costs, both within and outside the port, and of possible developmental impacts) and to monitor investment effectiveness.

(3) VINAMARINE should strengthen its capacity for evaluating alternative port development plans, especially to anticipate future project implementation problems and to find effective solutions, so that the recommendations of the VITRANSS master plan can be implemented successfully or adapted in response to changing conditions,

(4) In addition, the extent of VINAMARINE's responsibility for planning riverways should be precisely defined by specifying the water areas to be

under its responsibility and those to be under VIWA's responsibility (as discussed further below).

3) Division of responsibility for management of maritime and inland waterway subsectors

The present overlapping responsibilities between VINAMARINE and VIWA should be resolved by defining a rational basis for dividing responsibilities and applying this to the waterways of Vietnam. Possible approaches include (a) assigning responsibility to VINAMARINE for all coastal areas plus designated stretches of river between the coast and all inland sea ports, (b) assigning responsibility to VINAMARINE for all coastal areas, and responsibility to VIWA for rivers, (c) a modified version of Option (a) in which VINAMARINE responsibility along rivers is limited to designated rivers serving certain main ports such as Haiphong, Saigon and Can Tho, and VIWA responsibility is extended to designated coastal areas serving nearby islands. The three options are summarized in Table 3.4.2.

Option (a) would offer advantages to sea-going ships but would handicap inland water transport. Responsibility for managing important inland water routes, and even some busy coastal routes used by inland water transport, would be given to VINAMARINE rather than VIWA, so this option is not recommended.

It is inappropriate for VIWA to take general responsibility for waterways used by sea-going ships, especially those used by ocean shipping, so Option (b) can be ruled out.

Table 3.4.2
Options for Division of Responsibility between VINAMARINE and VIWA

Option	Advantages	Disadvantages
(a) assigning responsibility to VINAMARINE for all coastal areas plus designated stretches of river in order to connect all inland sea ports with the coast	- Access to all sea ports is possible by VINAMARINE waterways - Simplifies navigation for sea-going ships	- Could extend VINAMARINE responsibility to many rivers that are mainly used for inland water transport - Possible difficulties for VINAMARINE to collect waterway charges from inland water vessels - Makes navigation for inland water transport more complicated - Requires VINAMARINE to be responsible for some coastal operations by inland water vessels to/from nearby islands
(b) assigning responsibility to VINAMARINE for all coastal areas, and to VIWA for rivers	- Conceptually simple - Could minimize risks caused by uncertainly about different navigation systems along rivers	- Requires VIWA to be responsible for rivers serving major sea ports (Haiphong, Saigon etc.) - Makes navigation for sea-going ships more complicated
(c) assigning responsibility to VINAMARINE for (i) all coastal areas, except for certain off-shore areas used mainly by inland water vessels to be under VIWA, and (ii) designated rivers from the coast to main sea ports (such as Haiphong, Saigon and Can Tho), leaving most rivers entrusted to VIWA	- Access along VINAMARINE rivers to all major inland sea ports - Responsibility for other rivers, used mainly by inland water vessels, remains with VIWA - Allows rivers upgraded for sea-going vessels to be eventually transferred from VIWA to VINAMARINE management - Allows coastal areas bounded by nearby islands, which are mainly served by inland water vessels, to be managed by VIWA	- Potential coordination difficulties caused by VIWA navigation system along the coast - Makes navigation for sea-going ships more complicated along rivers serving minor sea ports - Requires arrangements to be made for VIWA to collect waterway charges paid by sea-going ships at minor inland sea ports

Option (c) offers the potential advantages of Option (a) without the main disadvantages. It would enable VIWA to be responsible for those rivers and coastal channels that are mainly used for inland water transport (although there would be some minor sea ports along some of these rivers). Responsibility for access rivers to the main inland sea ports would remain with VINAMARINE. Initially this would be limited mainly to the rivers connecting the sea ports serving Haiphong, HCMC and Can Tho. However, in the long term, once the rivers in the delta areas are developed for larger sea-going ships, responsibility can be transferred to VINAMARINE.

Option (c) is recommended as the best option and is similar to a proposal already made by VINAMARINE, except that VINAMARINE proposed that it should assume responsibility for more of the river network. To implement this option requires

- close coordination between VIWA and VINAMARINE over planning ports and waterways to avoid duplication and conflicting plans,
- careful implementation of the navigation system along the coastal areas managed by VIWA to avoid misunderstandings by operators, and
- an arrangement to be made for VIWA to collect waterway fees from all vessels using its rivers, including sea-going vessels (which would include both Vietnamese and foreign ship operators).

4) Institutional Strengthening of VINAMARINE (Port and Infrastructure Management)

To enable VINAMARINE to fulfill its responsibilities for managing the maritime infrastructure, in terms of monitoring technical standards for construction, carrying out dredging and other maintenance activities, and even managing construction projects where authorized by the MOT, the following institutional development strategy is proposed:

(1) Improvement in management information systems in areas such as (a) infrastructure inventory management, including monitoring the condition of infrastructure and the way it is utilized, (b) financial management , in order to estimate the costs of infrastructure provision and the most effective ways of financing maintenance and operations expenditure, (c) development of a comprehensive, detailed and reliable planning database with traffic statistics covering all sea ports that can produce routine monitoring statistics and also provide a basis for more detailed analyses as and when required, (d) fleet operations for pilotage, search and rescue and related services, to promote efficient use of equipment, to assess level of service offered, and to allow calculation of efficient user charges, and (e) project implementation management.

(2) Improvement of training programs and staffing levels for technicians, maritime safety inspectors and administrators, especially in the use of new types of equipment, computers and in foreign languages.

(3) Management training on maritime law and international conventions.
(4) Development of VINAMARINE's capacity to engage in dialogue with maritime transport users and other government agencies involved in maritime transport (such as the customs department), to disseminate information about maritime regulations to promote law enforcement and efficient, safe and environmentally suitable use of seaways and infrastructure, and to tackle in a coordinated way various procedural problems that inhibit smooth flow of goods through ports.
(5) Acquisition of modern computing and communication equipment to enable efficient data management and execution of day-to-day management activities.
(6) Removal of remaining commercial activities, such as port management and pilotage service, from VINAMARINE to allow it to concentrate on its regulatory role.

5) Development of the legal framework

Although the basic legal framework is in place there remains a need to make changes and broaden the scope of the legal framework to support the changes proposed above, as described below.

(1) Defining responsibilities in planning and management to remove overlapping responsibilities (both in basic law documents and even among documents promulgated by the MOT, especially concerning the relative roles of VIWA and VINAMARINE),
(2) Developing regulations and guidance documents for infrastructure maintenance standards (virtually none exist at present although they are being developed by VINAMARINE),
(3) Establishing clear responsibilities of organizations, such as specialized port operators, to provide the key investment, cost and operational statistics required by VINAMARINE to monitor the subsector, and
(4) Formulating regulations defining management processes in key areas such as inspecting foreign vessels and handling compensation claims arising from oil spills.

3.5 Air

Issues

1) Competitive environment for air services

Although there is more than one Vietnamese airline, all are members of Vietnam Airlines Corporation (VAC). Domestic scheduled services are almost entirely provided by Vietnam Airlines. Its main competitor, Pacific Airlines, is a joint venture that is 30% owned by VAC and serves less than 20% of the domestic market, on a single route (HCMC - Hanoi). Operation of aircraft in

Vietnam requires authorization from the Prime Minister but the detailed conditions for permission to be given are not yet defined in law.

Government does not allow foreign direct investment in air services, so the only way to tap into foreign business investment is through joint venture arrangements.

Domestic fares are set by government in accordance with Prime Minister Decision No. 818/TTg/1995 dated December 13, 1995. Foreigners pay about double those paid by Vietnamese. Fares on some short domestic routes are estimated to be lower than costs and so there is a cross-subsidy from other more profitable routes.

Vietnam has pledged to move toward a free market in airline services by creating a "fair and competitive" environment for the sustained development of Vietnamese airlines, according to the statement by Mr Nguyen Tien Sam, Director General of CAAV, at the 35th annual conference of civil aviation directors on 20 September 1999. This will place huge challenges on the Vietnamese airline industry.

In international markets, competition is limited in accordance with bilateral agreements. Vietnam Airlines operates most services authorized for Vietnamese airlines, but Pacific operates one route from HCMC to Taipei. These routes are regarded as relatively profitable for these airlines.

2) Increasing financial losses

Recent economic problems have had an adverse impact on the Vietnamese airline industry. Domestic services have been cut (reducing the aircraft fleet of Pacific Airlines from two to one)

The VAC is reported to be not financially viable at current cost and tariff levels, and the airline has insufficient commercial freedom to deal with the matter (especially to increase fares on domestic routes). The loss in 1998 was US$ 4.5 million and is expected to rise to US$ 38 million in 1999, according to General Manager Dao Manh Nhuong. As Vietnam enters into an increasingly liberalized international air transport environment, pressure will intensify to develop attractive international services and to match domestic fares and service levels to costs. This situation deserves urgent attention to avoid accumulation of debt and the risk of bankruptcy.

3) Inadequate cost recovery for infrastructure

Airport and navigation charges do not seem to be based on costs and so the extent of cost recovery differs between airports. There is apparently a net transfer from air traffic management revenues to airports, although this is

impossible to confirm in detail because financial accounts are not made available.

It is understood that charges for over-flying aircraft generate significant revenue and this might exceed the cost of service provision. Since, under ICAO guidelines, charges should reflect costs, this situation is unsustainable.

A further difficulty in assessing cost recovery is that airports are often shared with the military, which makes it difficult to apportion shared fixed costs.

4) Limited scope for equitization

No plan has yet been developed for equitizing organizations in the air subsector and there may be limited scope for this because of the large amounts of finance involved.

However, the government is encouraging the SOEs involved in airport services to develop commercial activities, with the purpose of allowing them to develop related business interests such as shops, hotels, advertising, etc. A number of joint venture operations are engaged in hotel, food processing, forwarding, and storage activities, but many have financial difficulties. All these activities are under VAC.

5) Implementing ICAO agreements

Implementing international agreements on safety and technical standards is a major challenge to the Vietnamese aviation sector, which has responded with major improvements in recent years.

The introduction of the new CNS/ATM system proposed for Vietnam will increase the challenge still further, requiring upgrading of management systems and personnel.

6) Inadequate environmental capacity

Airports have inadequate means of dealing with sewerage and solid waste. The problem is growing and requires serious attention in view of the growing traffic levels. Although not an issue at present, the amount of noise from aircraft will grow and this will particularly affect communities around the airports at Da Nang and Tan Son Nhat.

7) Lack of separation of regulatory and commercial functions

To ensure safe, effective and economic air transport, the regulatory and commercial functions must be clearly separated. This has occurred to a large extent through separating VAC and CAAV.

However the separation has not yet been achieved in airport services. In this case, both commercial and regulatory functions are still provided by the three airport authorities, which are public service SOEs (and therefore given only limited financial autonomy). To establish truly independent oversight of airport operations it is necessary to review and restructure the airport authorities.

8) Complicated interagency coordination

The CAAV is under the Office of Government rather than the MOT. While it simplifies administration of the aviation subsector this arrangement has fundamental problems:

- it is inconsistent with overall government policies for decentralization of administration,
- it makes development of an integrated transport network and overall policy framework for transport more complicated (especially regarding setting investment priorities), and
- regulatory oversight is largely left to CAAV and so there is a danger that CAAV becomes judge of its own management activities - a dangerous situation where major technical safety issues are involved.

The weakness of regulation oversight is particularly important because, like all specialized government departments, CAAV has significant powers over the appointments of the directors of business organisations and their development plans - in particular CAAV has such powers over VAC and, together with a limited supply of senior personnel in aviation management, this makes it difficult for CAAV to deal with VAC at arm's length.

Planning coordination is not satisfactory in the aviation sector. For example,

- the new Terminal 1 at Hanoi Noi Bai Airport obscures the view of a large portion of the taxiway to the threshold of Runway 11, and
- the current development of the new area control center at HCMC appears to be taking place without regard to the fact that it will be superceded within a few years by a new national center using new technology.

In future there will be even more users of airports whose interests must be taken into account when planning airports. Therefore there is a need to develop new planning processes that involve users and a need so strengthen the capacity of CAAV to take into account all social and environmental factors when carrying out project evaluations.

In particular better cooperation is required between CAAV and the Post and Telecommunications Department, to ensure that secure and reliable telecommunications services are provided for airports.

Furthermore at joint civil/military use airport, improved operational coordination is required to minimize potential problems that might arise if communications is lost between the two organisations. This problem is particularly serious from a safety point of view at Noi Bai airport where there is a danger of military operations being given precedence over civil operations, contrary to normal international practice.

Objectives

As globalization of economies makes further progress, international competition and exchange of information become more significant and, with the expansion of tourism, the role of air transport will become much more important in the future, demanding much better quality of services both internationally and domestically.

Long-term objectives of the aviation subsector are as follows:

- To establish a hierarchical airport network in the country to enable the configuring of an effective international and domestic air transport network.
- To expand the international air transport network to link with major destinations in the world, especially with those in neighboring countries, the Mekong subregion, ASEAN and regional hubs and the major economies.
- To develop an effective domestic air transport network to strengthen high value transport services between growth centers and tourism destinations, at the same time, to provide remote areas with necessary social and administrative services.
- To develop the air traffic control system, using modern technology that meets international requirements.
- To strengthen national airlines and make them independent, commercial enterprises to provide better services as well as to be more competitive in the more liberalized international air transport.
- To commercialize airport and related services in order to meet user needs at least cost.
- To strengthen capacity to regulate the aviation sector in order to enhance competition whilst ensuring minimum international safety standards.

Strategies

1) Improve Planning Capability

To strengthen planning and management capacity in the aviation sector, the following long-term measures are recommended.

- Strengthen CAAV capability to develop master plans, with improved prioritization of development projects, evaluation techniques, and use of life cycle management practices,
- Improve planning consultation procedures by involving a broad range of stakeholders in planning infrastructure, investment and operations,
- Strengthen national technical standards, based on ICAO recommendations,
- Adopt new airport classification system as proposed by VITRANSS,
- Improve the basis for planning and financing the future air traffic control system in a regional context, with better traffic forecasts.

Further details of these recommendations, see Technical Report No. 9 on aviation.

2) Improve Management Organization and Responsibilities

In order to complete the Government's program of separating business and regulatory oversight responsibilities in the aviation sector, the CAAV's regulatory, planning and policy-making functions should be completely separated from other business functions in the aviation subsector. Accordingly, wherever feasible, operational service functions such as airport ground services should be removed from the CAAV. Responsibility for any remaining service functions, such as air traffic control, should be clearly separated within CAAV from regulatory functions so that the oversight functions are not compromised by commercial pressures.

In order to promote efficient airport services it is therefore recommended that further re-organization of CAAV takes place based on the following five principles (already proposed in VITRANSS for sea ports): (a) commercial autonomy for each major airport, (b) continued separation of airport and airline interests (as already embodied in the split between CAAV and VAC), (c) competition both between and within airports wherever possible (but in practice, there are limited opportunities for competition between the airports, so the main emphasis would be on encouraging competition to provide ground and other services within the airport), (d) clear demarcation of responsibilities between government (including MOT and CAAV) and the airports (including separation of regulatory and commercial activities presently within the Airport Authority), and (e) maximum involvement of the private sector (to promote efficiency).

Equitization and privatisation of airports, as found in some other countries, is not a feasible way of giving commercial autonomy for the foreseeable future in Vietnam because it would raise too many strategic and security issues, private investors are unlikely to be interested in investing (although a possible exception in the long term could be BOT type projects to build new airport terminals and similar infrastructure), and government is certain to retain

control over planning of investment. More realistic options would be (a) to equitize the airports, with national or provincial governments maintaining ownership of the shares (or at least a controlling interest), (b) to award contracts for managing the airports, with government maintaining responsibility for major investments, or (c) to increase cost and performance incentives to the existing State-Owned Enterprise airport authorities under CAAV. Option (a) could achieve complete removal of airport business interests from CAAV. However continued supervision of airports is likely to continue in practice because, apart from the need for safety/environmental oversight activities, there would be a need to monitor airports to control possible monopoly abuse, CAAV would retain a strong interest in coordinating airport planning and because, under current Vietnamese practice, ownership interests are usually vested in sector agencies such as the ministry or a subsector organization such as CAAV. Options (b) and (c) would still require significant business supervision by CAAV, especially Option (c), and also offer less scope for delegation of commercial autonomy (and of control by local government).

Option (a) is the preferred option because it would allow the possibility of maximum separation of business and regulatory functions within CAAV, and for local government or even other local interests to play an influencing role in airport development. Such an option was recommended in the UNDP Master Plan which also recommended that the airports in each of the country's three regions should have their own financial management system, that no cross-subsidy should be allowed and that each airport component should be self-financing through internally generated revenue, external loans and (if government wished to give support for social or developmental reasons) subsidies.

Implementing such a plan would firstly require splitting the commercial and regulatory activities of the existing Airport Authority and then creating a new airport corporation (or even three separate corporations) with the required distribution of ownership, organization, powers and responsibilities. To reduce disruption and to ensure that safety considerations are not compromised a step by step approach is recommended as follows.

(1) CAAV

Although the main function of CAAV will be regulator of air transport, for the next few years this organization would have to maintain a management function, both for airports and for air traffic control services. When developing the CAAV organization, these responsibilities should be clearly separated from the regulatory responsibilities, so that the risk of conflict of interest between regulatory and commercial concerns is minimized. Financing regulatory activity should also be completely independent of the remaining business functions so that safety is not

compromised in the pursuit of profitability.

There is a need to strengthen the authority of certain parts of the CAAV in order to manage the subsector. For example, as described earlier planning procedures have been weak, with poor central coordination of planning infrastructure investment and inadequate authority by VATM at HQ over project implementation in its regional air navigational service units (possibly due in part to a lack of clear functional authority because the organization, functions and duties of VATM have not yet been defined in law).

Furthermore, to improve the in-house environmental management capability of the CAAV, it is recommended that a position for environmental management officer at CAAV headquarters and in regional airport authorities be created. The responsibilities of this officer assigned in an airport should be to initiate and conduct environmental management and monitoring activities in the airport. The responsibilities of the officer at the CAAV should be to monitor the airports' compliance with environmental regulations and to set suitable environmental standards and regulations in consultation with relevant authorities.

Other institutional improvements, recommended in the UNDP/ICAO Master Plan of 1992 but not yet implemented are as follows.

(a) the Civil Aviation Training Center (CATCV) should become part of VATM in order to finance training activities - the logic of this recommendation appears questionable and we consider that there is no reason why the institute cannot be established as an independent organization that earns fees for training personnel from CAAV, VAC and other organisations
(b) the Aviation Science and Technology Institute should become part of the existing Transportation Research and Development Institute or part of an existing university - the case for divesting this institute remains as strong as ever.
(c) Facility life cycle management practices should be introduced, requiring all planning proposals for capital asset acquisition or enhancement should be accompanied and validated by a comprehensive and quantified need, problem, opportunity definition and option analyses. The planning department should monitor proposals in this regard - it is evident from the way that the new area control center in HCMC is being implemented that this proposal has not yet been fully implemented.

The present reporting arrangements for CAAV, direct to the Prime Minister rather than the MOT, is not ideal because (a) policy and regulatory oversight is largely left to CAAV and there is a danger that it becomes judge of its own management activities - a dangerous situation where

major safety issues affected by technical considerations are involved, (b) transport policy coordination is made more difficult - under the present arrangement CAAV has to report to several ministries for planning liaison (General Development-Investment Department, Ministry of Construction, MPI, Ministry of Finance and General Tourism Department). In practice MOT has to be consulted too if overall plans for the transport sector are to be coordinated, but there is no direct reporting between CAAV and MOT to enable this (although MOT attends certain aviation planning meetings so that it can express its view). This arrangement is inconsistent with the government's overall decentralization policies and it is assumed that the present organization is only temporary.

For better coordination with other subsectors, to implement the government's decentralization policies, to reduce the number of reporting lines that CAAV is obliged to observe, and to allow effective oversight of policy implementation (especially safety aspects), it is recommended that responsibility for supervising CAAV is returned from the Prime Minister's Office back to the MOT once the MOT has acquired the capacity to manage the aviation sector.

(2) Regional Airport Authorities

In order to establish a new airport corporation, the existing airport authority and its three regional units should be reorganized into two parts to split the business and regulatory functions. The business unit should then be established as one or more corporations, each with a management board and managing director, in accordance with Vietnamese law, with overall responsibility for commercial management of the airports with authority to manage and protect airport assets in accordance with government plans and make contracts with other organisations to provide airport services. The remaining parts of the port authority would be placed under the appropriate department of CAAV.

Clear financial and performance targets for the corporations should be set by government in order to give guidance to management, who would otherwise be free to pursue the commercial interests of the corporation.

To enable a degree of competition between airports, for example over use made by airlines of support services and even choice of hub for their operations, consideration should be given to establishing three separate airport corporations with independent management. Even if one single corporation is established, it should be allowed to set user charges for each airport based on their costs so that they are self-financing and cross-subsidies are avoided. If government wishes to reduce charges for certain airports, perhaps for developing access in remote areas, then this should be achieved through direct subsidies at particular airports.

To enable competition within airports and to promote efficiency in the short-term, existing state-owned airport service enterprises should be priority candidates for equitization and allowed to compete freely for contracts at any airport. Such measures could encourage increased private participation in the aviation sector even in the short-term (in accordance with current plans of CAAV).

(3) VATM

As described above there is an apparent need to strengthen the lines of authority within the VATM so that central management is more effective. This problem of lack of central authority was highlighted in the UNDP Master Plan which recommended urgent action to give the Air Navigational Service Department in HQ clear functional authority over its regional units.

The VATM is expected to continue to provide air navigation services within CAAV for the foreseeable future (even after the separation of regulator and operator functions) and so there is a need to give efficiency incentives to VATM management - giving the management increased decision-making powers and rewards for achieving cost/performance targets. The first steps would be to implement regulations that define the organization, functions, tasks and powers of VATM and to implement fully all the recommendations of the UNDP Master Plan regarding accounting systems and setting of user charges.

As new CNS/ATM facilities and procedures are introduced, VATM's organizational structure should be adjusted accordingly.

(4) Other Considerations

There is a need to improve planning coordination with government agencies outside the transport sector in the following two ways.

Firstly better coordination is required with the Vietnam Post and Telecommunications Department in order to ensure reliable provision of telecommunication services at airports. Failure to obtain service from the Department would require additional cost in obtaining and operating specialized facilities.

Secondly, as most airports with civil aviation operations in Vietnam are also used by the military, the margin for expansion of civil aviation use is often very limited. A considerable part of the airport area at Danang and Tan Son Nhat is occupied by military facilities.

In general, most airports in the world start their operations as military

airports and, as the activities of civil aviation increase, military activities decrease. Separation between civil airports and military airports is a global trend because it allows expansion of civil aviation activities and increases the operational safety of both civil and military aircraft.

If all the military facilities in airports with civil aviation are moved to other military airports, it will increase civil airport capacity and will result in considerable cost savings.

3) Improve Regulation

In order to implement higher technical standards as recommended earlier, new aviation regulations have to be implemented. CAAV recognizes the importance of safety and has been implementing the recommendations of the ICAO aviation conference in Montreal (December 1997), covering inspection/control of flight conditions, supervision/control of flight operation and establishing systems of certification/licensing. CAAV has already promulgated up-to-date regulations on commercial air operation and on aircraft maintenance, and is currently formulating regulations related to pilots, pilot training facilities and aircraft maintenance facilities. The specific task of reviewing and identifying the need for new legislation is currently underway by the French-Vietnam technical assistance project.

Even though the present limited traffic at airports causes only limited environmental impact, the future increase in air traffic will result in serious environmental problems due to airport/aircraft operations. To minimize the impact on the environment and on neighboring residents and to facilitate regular environmental monitoring, the establishment of environmental regulations is proposed.

These regulations should cover such subjects as maximum permissible level of aircraft noise, land-use control plan for surrounding areas of an airport, reduction in aircraft noise, and garbage, oil and sewerage disposal rules.

In addition to establishing higher national technical standards, as described in Technical Report No. 9 on aviation, there is a need to improve the basis of business regulation in order to promote competition. The main issues concern the way that charges are set by government and the conditions under which operators may provide services.

In principle the airline business is not a natural monopoly - although the costs of entry are high, in practice access to finance allows small new entrants to enter the business and compete effectively with larger existing operators. There are no significant economies of scale that prevent the smaller operators from competing with larger one. Under these conditions, provided that administrative entry controls are minimized (apart from those required to

set and enforce minimum safety and environmental standards) the air line market in Vietnam (on domestic and international routes) should be competitive, with tariffs being controlled through competitive pressures, and there should be little need for intervention by government to curb monopolies.

Authority to establish airline businesses can only be given by the Prime Minister, on the proposal submitted by CAAV. In practice it seems that authority for civil airlines is only given to companies that operate within the umbrella of VAC. There are two operators providing scheduled services within Vietnam and these only actively compete on one domestic routes (HCMC to Hanoi) and Pacific Airlines has only a limited share (about 7% of the market). Even on this route there is limited real competition because both enterprises are subject to a high degree of control by VAC. In particular Vietnam Airlines has no separate management from VAC management and 30% of Pacific Airlines is owned by VAC. Fares are the same for the two airlines and the basis for competition is limited to quality of service (Pacific Airlines have personalized video screens for passengers). VAC is empowered to coordinate international services at international airports which, in principle, gives it a competitive edge over other airlines. During the recent economic downturn in the subsector, Pacific Airlines had to reduce its fleet from two to one aircraft, severely reducing its presence in the market compared to Vietnam Airlines.

On international services the competition is strictly limited under the bilateral agreements so that again competition is limited to quality of service. However under the forthcoming multilateral transport agreements between ASEAN countries, this situation should change within two years and there will be greater scope for competition on regional routes. This in turn will probably affect the domestic market because of the possibilities for international routes to connect two airports within Vietnam.

Given the limited competition at present, continued control by CAAV over maximum fare levels may be justified to prevent VAC using its monopoly on many domestic routes to charge excessively high fares. However given the inherently competitive nature of the business and the prospects for increased competition, there is no reason to continue with these controls in the medium term. In particular it seems unlikely that fares charged on domestic routes would greatly exceed costs because of the limited ability of most passengers to pay the fare.

Rather there is a danger of Vietnam Airlines being pressurized to operate some low density services at fares that are below costs. Some reports have been made that Vietnam Airlines international services cross-subsidize domestic services and our cost calculations confirm that international routes are profitable whereas some short domestic routes are probably not. The main reason for this appears to be the low fares which are charged on short routes that make inadequate allowance for the costs involved. Whereas

current domestic fares for Vietnamese passengers on its main longer routes are similar to those charged on similar routes, using similar aircraft, in other countries in the region - while fares for foreigners are much higher.

Utilisation of assets in Vietnam Airlines, such as annual hours flown by aircraft, is similar to that attained in other countries for similar aircraft involved on international, long and short distance domestic routes. Comparison of load factors between countries indicates that Vietnamese airlines operate with quite high ratios on domestic routes (over 80% in some cases which in practice makes it difficult for passengers to purchase tickets on many flights), indicating that the supply of services is inadequate (possibly due to low fares and profits). One way that high load factors could be achieved on minor routes is by canceling flights that have few passengers, but this causes unacceptable passenger inconvenience. These comparisons reveal no evidence of inefficient operations and excessive costs in Vietnam which could account for the low profitability of short distance domestic services, although this could not be confirmed because of lack of available data.

Limiting fares on shorter routes distorts competition between other modes and prevents the airline (Vietnam Airlines) from competing on the same basis as other airlines, in both domestic and international markets. If sustained, this could reduce investment in the Vietnamese airline industry and prevent it from supplying enough domestic capacity. It is therefore recommended that

(a) fares controls are phased out within the next two years,
(b) in particular the fares differential between Vietnamese and foreigners should be removed because this is not based on a sound marketing rationale and may invite retaliation, especially from other countries in the region
(c) airlines should develop flexible fares policies that suit market conditions and to balance supply and demand more effectively - for example, discriminating between different services provided in different markets or to different types of passengers (for example, higher fares for business passengers travelling at peak times, and lower fares for other passengers travelling at off-peak times who can be carried at marginal cost).

If government wishes to subsidize certain minor services, perhaps to give access to remote areas, then it should subsidize them in a way that encourages efficiency and minimize costs (for example, by awarding contracts through competitive tendering for the airline offering the least cost service). This would reduce the cost of subsidy and allow the airlines to compete on an equal basis, not only on domestic routes but also on international routes.

To develop competition further between Vietnamese airlines on domestic routes in the short-term, route licences could be issued, through competitive tendering to the airline that offered the required service at minimum cost (or

offered the best quality service for given cost). However this would involve CAAV in additional tasks in planning services, estimating fares and service levels, and administering the tendering procedures, including marketing activities which are normally best left to be carried out by the airlines. Major difficulties would be faced by the CAAV when demand fluctuates unexpectedly or if airlines fail to offer the agreed service levels, and additional costs would be incurred by CAAV. The preferred option in the long term would be to allow free entry provided the airlines achieved minimum legal safety standards.

Increased competition among Vietnamese airlines should be encouraged by removing the current ban on foreign direct investment in the airline business (especially in businesses seeking to develop international services to and from Vietnam that would benefit the country, such as through increased tourism). Increased investment would allow modern management methods and technology to be introduced more effectively into the aviation sector and raise operating standards and efficiency in the country (not only on international routes but also on domestic ones).

The government also regulates other fees paid by airlines and passengers for using airline facilities. It is difficult to assess the extent to which charges cover costs of provision because detailed data have not been made available. For the same reason it is difficult to determine how effective the accounting systems are in supplying the necessary cost and revenue information on which to base charges (the UNDP Master Plan made recommendations that this should be substantially improved in order to be able to determine user charges and a means of performance measurement). In overall terms these charges appear to cover costs and even provide a significant surplus (probably mainly attributable to payments by foreign airlines that traverse Vietnamese airspace). However there are differences in profitability between airports because charges at individual airports are not related to local costs. The charges are also similar (in terms of charge structure and level) to charges made by other countries in the region. However discounts are given to Vietnamese airlines which would probably be illegal under international rules (especially the rules to be adopted under the forthcoming ASEAN transport agreement). While this encourages use of Vietnamese Airlines on international routes, it deprives the government of revenue for infrastructure. It is strongly recommended that, if not already implemented, the previous UNDP study recommendations on improving the accounting system are implemented, that the discounts for Vietnamese airlines are removed in the short-term and the charges reviewed to cover the operating and capital costs of infrastructure and services provided for both en route services and for terminal services at each location (all three recommendations were made by the previous UNDP study). Wherever possible the charges should be proposed by the agency responsible for service provision and approved by government - proposed charges should only be refused if there is evidence of

monopoly charging which would result in excessive profits (a contravention of ICAO guidelines).

The regulatory recommendations can be summarized as follows:

(1) To implement the higher technical standards required to meet future ICAO safety standards
(2) New regulations should also be developed in the medium term to provide the legal basis for tackling future environmental problems (especially noise pollution).
(3) To allow Vietnamese airlines to adapt services to meet demand on domestic routes and to compete on an equal basis as foreign airlines on international routes, remaining fare controls on domestic routes should be abolished, but fares should be monitored to identify profiteering in monopoly situations.
(4) In particular, the differential fare structure between Vietnamese and foreigners should be abolished, leaving Vietnam Airlines free to tailor fares according to its market strategy (which could include discounts for off-peak travel or by people with lower incomes),
(5) If government wishes to set lower fares than offered by airlines on particular routes, then these must be compensated with an appropriate direct subsidy for each service.
(6) Competition in the domestic sector could be developed in the short term by awarding franchises for each service/route (for example, to the airline offering the lowest cost service for a given service level) and eventually by allowing free competition subject to airlines meeting minimum safety standards,
(7) Airport and air traffic charges should be based on costs incurred by en route and terminating services at each airport – these charges should be proposed by the airport corporation and approved by the CAAV, unless there is evidence of excessive profit-taking.
(8) Government should remove the present ban on foreign direct investment in the aviation subsector to allow a greater range of investment possibilities in the international airline business, promoting more modern management methods and use of modern technology.

4) Commercialization and privatization

It is expected that more air carriers will start air transport service in Vietnam by 2020, including private operators. For example, the number of airlines in ASEAN countries has increased dramatically over the last decade and now numbers in excess of 20 operators. Domestic competition now exists in Indonesia (five airlines), Philippines (six airlines) and Malaysia (four airlines). Private operation of airlines rather than state-ownership is now the norm. This has led to lower fares, an increase in market served and more frequencies in existing markets. For example in Indonesia over the last 10 years, the number

of services connecting Jakarta, Surabaya, Denpasar, Yogyakarta, and Medan has increased by some 11% per annum. Apart from Garuda Indonesia, which focuses on international service, five airlines now compete on domestic routes.

Thus, if patterns observed in other ASEAN nations are mirrored in Vietnam, deregulation, in concert with economic growth, expansion of air transport infrastructure, revised service agreements between airlines, tourism, and evolution of aircraft technology, will offer great opportunities for new Vietnamese air carriers in future.

In addition to the regulatory changes described above (simplifying the entry requirements to new operators and enhancing safety standards), such changes would require breaking up the VAC monopoly in the aviation industry and transferring the operational units into private hands.

To make such major changes feasible in the long term while promoting efficient transport in the shorter term, it is desirable to adopt a restructuring strategy that promotes fair competition and gives efficiency incentives to existing and future new entrants. The current equitization program of the government offers a good opportunity to implement such a strategy. However equitizing the whole of the main airline company is not likely to be high in government priorities because of their strategic nature and the huge capital requirements. The priority should therefore be (a) to ensure that the air lines of VAC (not only Vietnam Airlines but also Pacific Airlines, which is a VAC joint venture, and VASCO) are able to act independently, with management freedom to plan services, utilize resources, subject to strict financial discipline, without any state support such as subsidies or credit guarantees (implying that they should be equitized if necessary by keeping ownership in state hands), and (b) divest from VAC the many smaller support units that offer services to airlines and make them compete with new service providers to provide services to all the airlines and airport enterprises on an equal basis.

To promote real competition in the airline business in Vietnam, VAC's ownership of Pacific Airlines should be reduced by taking a purely passive shareholder role, as a first step in divesting this company from VAC.

Suitable support units that can be divested include

(a) various supply companies such as VINAPCO, AIRIMEX, the Aviation Consultancy, Survey and Design Company, and the Aviation Project Construction Company
(b) the Air Service Companies at each major airport (NASCO, SASCO and MASCO)
(c) any non-business units such as the aviation institute which, as described earlier, can be put on a revenue-earning basis
(d) the five joint ventures in catering, goods handling, freight forwarding and hotel service

The CAAV has encouraged private investment in such businesses and this has already led to the establishment within VAC of the joint ventures mentioned above. The CAAV has also encouraged greater commercialization of the airports under its administration by allowing peripheral business activities such as selling duty-free goods and advertising. Relatively little commercialization can be expected in air traffic control however. The pace of commercialization/ privatization of air navigation service providers is much slower than for air carriers and airports in the world. This can be attributed to a number of factors, including air navigation service provision being naturally monopolistic and there is little advantage in their developing non-aeronautical commercial services.

5) Develop human resources

Implementing higher technical and safety standards that meet ICAO requirements will continue to be a major challenge for the aviation subsector.

In the airline industry there will be a need to develop and implement basic training and upgrading training programs for commercial pilots on modern aircraft, flight instructors for Boeing, Airbus, Fokker, ATR, and King Air, flight inspectors, aircraft technicians and cabin staff. In most of these fields the high technical requirements and the need to acquire English make acquisition of skill levels difficult to achieve in Vietnam (the ratio of successfully trained students to applicants is often quite low - only 10% for cabin staff and less than 1% for pilots - suggesting that selection of candidates is critical if training costs are to minimized). In technical and operational fields many existing staff, including instructors, have been trained in Russian and in the use of obsolete technology, and this increases the difficulty of improving training. Overseas training is often required, adding still further to the training difficulties. Much specialized maintenance is currently carried out overseas and the amount of technical training would be significantly enhanced by increasing the amount of maintenance done in Vietnam.

Equally important however is the need to train management in the business skills required for success under the market economy (financial and business planning, management information systems, costing tools, marketing methods, customer relations etc.)

In management of airports and other infrastructure basic training and upgraded training is required in airport operation and management, strategic planning, airport emergencies, airport management staff, air traffic control, maintenance, communication systems, CNS/ATM, aeronautical meteorology, air safety, security, rescue and fire fighting. Training in airport design and construction aspects and in airport business methods are also critical for developing effective airport and airline support services.

In subsector administration, there is a need for training in regulatory methods appropriate for a market economy, concerning setting higher technical and operational standards (systems of supervision/control, of certification/licensing etc.), setting fares, assessing competition policies and project evaluation. Training in management systems is required to implement an effective planning and administrative system with adequate lines of authority, management information systems, costing systems for assessing user charges, and contracting mechanisms (especially for large international projects). Training of MOT staff will also be required to enable government to develop and monitor air transport policies and supervise CAAV. The CAAV plans to train 100 to 120 persons per year in all professional fields (including airline and other business fields).

To ensure adequate staff in the aviation subsector, manpower/training plans will need continually updating to cope with changing conditions.

To ensure a continuing supply of trained controllers and maintenance technicians, the facilities at the Civil Aviation Training Center in HCMC should be modernized to include a new ATC procedural trainer, a new ATC radar simulator and a multimedia language laboratory. The center should have a regular annual budget to maintain its training standards. Improvement of facilities would enable it to better serve the CAAV and VATM both as a source of controllers and technicians trained in the basic level and as a provider of in-service training for staff in mid-career.

To summarize the human resource development needs, to enable government agencies to fulfill their future responsibilities in the state management of the aviation subsector, priority in training is required for:

(1) strengthening MOT with staff qualified to oversee planning and setting of technical standards in aviation,
(2) strengthening CAAV to develop air transport plans, set and enforce higher technical and environmental standards through certification/licensing/control systems, and develop the market regulatory system,
(3) strengthening the airlines' capability in business management under market conditions and training capacity for pilots, mechanics and other staff,
(4) mid-career training and other specific needs to support the 10-year master plan, especially training in planning methods, economic evaluation and methods of managing major international investment projects, and
(5) upgrading the Civil Aviation Training Center of Vietnam to meet international qualification standards and to offer training on air transport business management - consideration should be given to financing the center completely through fees paid by VAC and other users.

4 RECOMMENDATIONS

4.1 The Future Vision

Two main long-term institutional development issues concern (1) the role of the private and public sectors in the transport sector, and (2) the distribution of state responsibilities between government agencies (especially between national and local government). How these issues are resolved in future years will affect the distribution of responsibilities within the transport sector.

The Role of the Public and Private Sectors

Under current economic policies that involve encouragement of the private sector and equitization of state-owned enterprises, the private sector will play an increasingly dominant role in the provision of transport services. The private sector has already established a major role in road and water transport. Experience from other countries shows that there is no economic case for keeping most transport operations in state-ownership. Therefore there is a strong case for implementing the government's equitization program, not only for road and inland water transport, but also, in the long-term, for large parts of the railway, maritime and aviation subsectors.

At the same time it will be necessary to establish a firm regulatory framework with minimum entry barriers, to promote a level playing field for competition between modes and operators, whilst setting minimum safety and environmental standards. Such a framework would encourage much needed private investment.

The long-term strategy proposed for creating a competitive environment for transport services is described in Section 4.2 below.

Distribution of Government Responsibilities

Despite the increased role of the private sector, the state sector will retain its core function of regulating the transport sector and providing public infrastructure. Even here the private sector can play its part by efficiently providing services such as:

- infrastructure design, construction and maintenance, and
- carrying out safety inspections of road vehicles by approved inspectors.

This raises issues about how best to involve the private sector and how to distribute remaining government responsibilities. When considering future responsibilities for public infrastructure management, it is helpful to distinguish the following four roles:

(a) owner, the agency with overall policy-making responsibility for the infrastructure,
(b) administrator, the agency responsible for ensuring that the owner's policies are implemented,
(c) manager, the agency entrusted with specifying and controlling operational and maintenance activities involved in implementation, and
(d) contractor, the agency delivering services such as construction and maintenance.

In future, as shown in Figure 4.1.1, while the ownership role remains with the MOT (eventually including aviation infrastructure), it is anticipated that other responsibilities will be increasingly delegated to other agencies. In particular:

Administration: In Vietnam, as in many other countries, responsibility for setting standards and developing strategic plans is, in theory, vested in modal authorities at central government level (to ensure that common standards apply throughout the country and to coordinate local plans at national level). However in practice MOT retains certain functions concerned with setting standards. MOT also delegates implementation of internationally-funded projects, not to the modal agencies, but through special PMUs.

To allow an effective bottom-up planning and implementation process, responsibility for proposing plans and their implementation (especially concerning infrastructure maintenance) should be delegated to the lowest appropriate level, provided that effective coordination mechanisms between government agencies are in place.

In accordance with the function of the infrastructure, it is appropriate for responsibilities for developing and implementing plans to be assigned to central and local responsibilities as follows:

- primary and secondary infrastructure is administered mainly by central government, through the specialized departments of MOT such as VRA, VIWA and VINAMARINE (not through PMUs),
- tertiary infrastructure is administered mainly by provincial and district government (within guidelines established by central government).

Manager: In other countries the functions of administrator and manager are often performed by the same agency. However there is an increasing trend to delegate management to private managers. In Vietnam most management functions are performed by the modal agencies or by local government agencies. The main scope for delegation of management functions is in the railway, sea ports and river ports. In these cases, public infrastructure can be funded, straightforwardly, on a self-financing basis from user charges. This makes it feasible to assign investment planning and tariff responsibilities to business units (the railway, port and airport companies, which are almost entirely state-owned at present but will be increasingly privately-owned in future). Even expressways and other special roads can be managed on this sort of basis, encouraging private investment in transport infrastructure.

Figure 4.1.1
Responsibilities for Public Infrastructure Management

Role	Owner	Administrator		Manager	Contractor
Functions	Policy; Funding; Legal Framework	Strategic Planning; Technical Standards	Investment Planning; User charges	Business Planning; Specifies and controls activities and supplied services	Delivers construction, maintenance and other services
Present Responsibility					
- Roads	MOT	VRA/PMU/MOT (PPC/PTAs for provincial roads)		VRA (PTAs for terminals and provincial roads)	VRA and construction SOEs (PRMUs for provincial and some national roads)
- Railway	MOT	VR		VR	VR
- Inland Water	MOT	VIWA/PMU/MOT (PPC/PTA for provincial waterways)		VIWA (NOWATRANCO and SOWATRANCO for main river ports, PTAs for provincial waterways and ports)	VIWA and construction SOEs (PRMUs for provincial waterways and ports)
- Maritime	MOT	VINAMARINE/PMU (VINALINES for planning main seaports; PPC/PTA for planning provincial ports)		VINAMARINE (VINALINES for main ports, PTAs for provincial ports)	VINAMARINE and construction SOEs, (VINALINES for main ports, PTAs for provincial ports)
- Aviation	PM's Office	CAAV		CAAV	CAAV and construction SOEs
Future Responsibility					
- Roads	MOT	VRA (PPC/PTA for planning tertiary roads)		VRA (PPC/PTA for terminals and tertiary roads)	VRA, PTAs, SOE and private contractors
- Railway	MOT	MOT/VR	VR		VR and private subcontractors
- Inland Water	MOT	VIWA (PPC/PTA for planning tertiary waterways and ports)	VIWA for primary/secondary waterways, PTAs for tertiary riverways, and port corporations for local river ports		VIWA, PTAs, SOE and private contractors
- Maritime	MOT	VINAMARINE (PPC/PTA for planning tertiary ports)	Port corporations for ports, VINAMARINE for navigation aids and channels		VINAMARINE, SOE and private contractors
- Aviation	MOT	CAAV	Airport corporations for airports, CAAV for air traffic management		CAAV, SOE and private contractors

NOTE (1) For simplicity, responsibilities assigned to district administrations for tertiary infrastructure are not shown, but would be similar in nature to those of provinces.

However, in Vietnam, MOT concern about delegating responsibility for managing infrastructure investment in ports and the railway, has led to proposals to separate management responsibilities for infrastructure management and operations. According to these proposals, management of infrastructure would be kept in the hands of the modal agencies rather than of commercially-run SOEs. Such proposals could reverse past reforms which delegated infrastructure management responsibilities to SOEs and separated commercial and regulatory responsibilities within the modal agencies. Given the world-wide trend towards delegation of infrastructure management responsibilities, and the need to establish genuinely independent regulatory agencies, these proposals should be examined carefully before adopting them as general policy.

Contractor: It is common in most countries for construction-related services to be supplied to management agencies on the basis of contracts which are awarded competitively. In Vietnam, such concepts have been introduced, but there remains enormous scope to improve the basis of competition (for example by increasing the number of contractors) and to extend contracting to other areas (for example infrastructure maintenance).

The long-term strategy for implementing such changes in transport sector management, is described in Section 4.3 below.

Implementing such changes during the master plan period will take many years and it is important to identify the next steps that can realistically be taken. The policy priorities and institutional changes required in the short-term are described in Section 4.4.

4.2 Long-term Competition Strategy for Transport

The government has achieved much in establishing a market-based regulatory framework for transport, especially through:

- ending allocations of cargo to specific modes of transport,
- liberalizing tariffs for road, inland water and coastal shipping transport,
- relaxing entry controls such as licensing conditions and allowing the private sector to offer transport services,
- allowing the private sector to invest in and operate transport infrastructure,
- improving cost recovery of state transport infrastructure, and
- commercializing state transport enterprises and abolishing operating subsidies.

However the following problems remain:

(a) the basic regulatory framework is not yet in place (no modal acts for roads, railway or inland water transport). Some safety legislation has been introduced but enforcement is weak and there are insufficient resources for road safety.

(b) Entry barriers to transport operators remain, especially through licensing. Although many unnecessary transport licences have recently been abolished by

the Government, full implementation of this reform has yet to be made, and the MOT has plans to reintroduce some licences.

(c) Tariff controls remain - either imposed by the GPC on port, railway and air transport services, and on some contracting services, or by provinces on provincial bus services - causing economic distortions[1].

(d) Other distortions are caused by inadequate cost recovery of infrastructure (especially large subsidies paid for railway infrastructure maintenance and the lack of axle weight charges for heavy trucks - see Appendix D).

(e) Although their effects cannot always be quantified, other distortions arise from continued SOE transport operations - especially in maritime transport where the VINALINES corporation dominates the coastal shipping market and provision of port services. Such distortions may increase unless appropriate strategies are adopted, based on market-based principles of economic management.

To put in place a regulatory framework, which promotes efficient and affordable transport services and balanced traffic between modes, while meeting safety and environmental concerns, requires the following three point strategy:

- establishing a regulatory framework for transport which encourages competition while meeting justifiable safety and environmental concerns,
- implementing economically sound pricing and cost-recovery policies, and
- reforming SOEs to foster competition and a level playing field.

This strategy is described below.

1) Foster competition and entry of new operators into the sector, subject to justifiable minimum safety and environmental standards

Greater competition is needed in supply of transport services to offer better services to customers at least cost. This requires high priority to be given to developing and implementing the legal framework in accordance with economic principles of market regulation.

Most transport subsectors are inherently competitive, in which supply and demand can be balanced efficiently by a regulatory framework that (a) limits entry controls to those required to meet minimum safety/environmental standards, and (b) removes price controls and distortions caused by subsidies, import controls and other interventions. Such conditions generally apply in Vietnam, even for such traditional monopolists as railways because the latter is subject to competition from other modes. Even for aviation and sea transport, where high entry costs can inhibit new entrants, it is possible to minimize entry costs through chartering or leasing. Only for provision of urban public transport, ports, airports and similar fixed facilities is there a

[1] A distortion in economic terms, in which prices for goods and services do not reflect the marginal costs of resources incurred in production. These are likely to increase overall transport costs in Vietnam.

possible need to control, in the long term, prices of transport services in order to control monopolies.

It follows that the regulatory framework should be developed and implemented based on the principles of:

- limiting entry barriers to those justified on safety/environmental grounds,
- removal of price controls, and
- strengthening enforcement and safety/environmental measures.

This involves:

- abolishing licences and/or simplifying licensing procedures, and removal of unjustifiable or discretionary licence conditions,
- removal of any price controls not necessary to control monopoly behavior[1],
- reviewing safety standards, as part of transport safety programs aimed at achieving the greatest benefit at least cost to the country, after allowing for a realistic level of enforcement.

Resources for enforcement are clearly inadequate and should be increased once clear rules are in place and adequately advertised. Scarce resources for enforcement can be targeted most effectively through developing and implementing well-designed safety/environmental strategies and programs. When drafting new legislation, due account also has to be taken of regulatory standards agreed to under international protocols.

In the case of urban bus transport, ports, bus terminals and other fixed facilities, the competitive situation should be monitored by an appointed regulatory body and appropriate price controls applied if needed (including the possible need for franchising arrangements where competition in the market is replaced by competition for the market, for example through some sort of competitive tendering).

2) Adoption of economically sound pricing and cost recovery policies

In accordance with government policy, the price of transport should reflect its underlying cost except where this is to be subsidized for social or other reason.

Based on a principle of minimum level of cost recovery (as adopted by the Vietnam Government), for non revenue-earning infrastructure such as roads and waterways:

- users should pay through taxes or charges at least the variable costs of operation and maintenance, and make a contribution towards fixed costs, with government paying the balance,
- investment should be funded from the state budget and financed from either general revenue or infrastructure-specific revenue.

[1] If government wishes to keep tariffs below costs, replace these controls by specific subsidies awarded to transporters who can provide the service most efficiently (at minimum cost to government).

Similarly for the railway, ports and airports:

- users should pay through charges at least the variable costs and make a specific contribution to fixed costs, with government paying the balance,
- investment should in principle be funded internally or, if state assistance is necessary, from reimbursable state credits (not from the budget).

Wherever possible, user charges should take account of the costs incurred by different users - so heavier road vehicles or larger water vessels should pay for any additional costs that they incur above those incurred by smaller vehicles/vessels. Furthermore, in the long run, because of the shortage of investment funds, it is necessary to seek ways to make each mode of transport self-financing through user charges[1]. Estimating current levels of cost recovery is difficult because of lack of reliable financial data. Based on VITRANSS estimates the following considerations apply for each mode.

Roads

Current road maintenance expenditure on the designated network of national, provincial, district and urban roads is estimated by the World Bank at approximately US$ 80 million. However current maintenance is inadequate and much of the network is in poor condition. US$ 190 million is estimated as the amount needed to maintain this network once it has been restored to a maintainable condition. A number of possible financing strategies have been considered by the World Bank. Assuming that local authorities pay 20% of fixed costs (100% in urban areas) the following contributions would be required to balance the costs incurred by various road users (and encourage use of heavy trucks that are designed to minimize damage to roads):

- US$ 0.05 (VND 700) per litre of diesel fuel,
- US$ 0.07 (VND 1,000) per litre of gasoline, and
- an annual axle load fee equivalent to US$ 120 (VND 1.7 million) for a medium truck and US$ 490 (VND 6.9 million) for a tractor-trailer.

Although at present there is a fuel levy (per litre) of VND 300 on diesel and VND 500 for gasoline, current expenditure on road maintenance amounts to only about VND 250 per litre of total fuel consumed in Vietnam (including fuel consumed by non-road users).

Under the proposals described above, there is a need to raise the funds for road maintenance over the next ten years or so, by introducing the axle load fee and increasing, in a step-by-step manner, the average fuel levy from about VND 250 at

[1] Including the cost of developing the network where this is justified in economic terms. In practice there are strong arguments against making users pay the full development costs of infrastructure (especially public facilities such as road and waterways), because indirect benefits accrue to non-users. The VITRANSS therefore assesses the minimum required level of cost recovery from users, in the long-term, based on infrastructure maintenance costs, excluding development costs.

present to about VND 500 (for diesel and gasoline). However since most diesel is used by non-road transport purposes, compensation schemes would have to be considered for diesel used in agriculture, industry, railway transport and other purposes.

Inland Water Transport

Maintenance expenditure on the 6,200 km of centrally-maintained network was about US$ 7.3 million (VND 80 billion) in 1997 (all those except the sea-cum-riverways to the three main ports of Haiphong, Saigon and Can Tho, which are maintained by VINAMARINE for shipping purposes). Future maintenance costs will increase because of

- increased depth of dredging, and
- expansion of the maintained network.

Detailed assumptions are given in Appendix D, from which it is estimated that centrally-provided finance requirements are US$ 14 million per year (assuming that 20% of the provincial waterway maintenance cost is met from local sources, as assumed for roads).

Present annual revenue from inland waterway users is estimated to amount to about US$ 8 million, including US$ 7.5 million paid in the transport fuel levy, which covers the current maintenance cost. VIWA charges waterway fees for vessels calling at ports but the revenue barely covers the collection cost. Assuming the VITRANSS forecast traffic growth, future revenue from waterway users would amount to US$ 9 million in 2010 assuming the fuel levy remains unchanged. With the recommended increase in fuel levy for roads, the total revenue would exceed the future waterway maintenance cost so it seems likely that full recovery of maintenance costs would be achieved[1]. Under these circumstances, the existing inefficient waterway fees could be abolished or replaced with vessel registration fees.

Maritime

Total current expenditure on maritime infrastructure (VND 158 billion in 1998), excluding the ports but including access channels and navigational aids, is more than covered by revenues from the maritime safety fee (VND 165 billion in 1998). However most revenue is derived from international shipping because the charges for coastal shipping are almost insignificant (only about 8% of those of international shipping) and coastal shipping traffic is only a small proportion of total traffic using the ports.

[1] If full recovery of maintenance costs is not achieved from the fuel levy, consideration would have to be given to raising user charges. If so, account should be taken of the fact that most of the increased maintenance costs are attributable to the increased dredging requirements of larger vessels, which should therefore pay most of the additional costs.

In 2010 the cost of maintenance dredging is expected to rise from VND 60 million to VND 112 billion due to

- the greater planned depth and
- the greater dredged volume.

Assuming that the cost of maintenance of navigational aids increases by a similar amount due to upgrading of the navigational aids (as proposed by VITRANSS), the annual infrastructure maintenance cost is expected to rise to about VND 276 billion (see Appendix D for details).

Required levels of maritime safety fee in 2010 depend on whether or not coastal shipping pays the same as international shipping:

- if coastal shipping charges are made equal to international charges, no increase in international maritime safety fee is required,
- if coastal shipping charges remain only 8% of international charges, the maritime safety fee would have to be raised by 20%.

It is recommended that, in the long term, the coastal shipping charges are made equal to those of international shipping because

- international maritime safety fees are already considered to be excessive (together with tonnage fees they are more than twice those pertaining in Bangkok, partly because of the longer access channels of Vietnamese ports), and
- making coastal shipping pay for the infrastructure it uses will create a more level playing field for domestic traffic.

Ports and Airports

Cost recovery at ports is distorted by GPC price controls that mainly set uniform charges at all ports, irrespective of variations of costs. This limits incentives for port management to improve services and adapt charges according to their particular market circumstances.

Airport charges are set in a similar uniform way but precise information is not available and the basis for separating costs of civil and military facilities is not known. In practice airport service seem to be subsidized by air traffic management fee revenue collected from over-flying aircraft. This subsidy is unsustainable in the long term because, by international agreement, air traffic management fees much be related to costs of service.

To promote efficiency, a level playing field between state and private ports, and to sustain services:

- port and airport charges should be based on costs at each port/airport,
- with investment financed through loans on commercial terms, and
- a clear basis for separating civil and military facility costs at airports.

Cost Recovery of SOEs

There are doubts about the cost recovery of many transport SOEs. For example the Vietnam Airlines Corporation (VAC) reported heavy losses in 1998, the railway receives a net subsidy of US$ 14 million each year, many road transport SOEs are not able to generate surpluses for investment and many are apparently bankrupt. In one case in 1998, VINALINES intervened with financial and management assistance to save a shipping SOE from bankruptcy - in effect using surpluses generated from more profitable SOEs (especially the ports, which are generally more profitable than shipping enterprises) to support less profitable ones.

Certain SOEs receive credit guarantees from government, in order to finance major investments. In one case, at least, a major loan for purchasing a VINALINES oil tanker has resulted in major losses because the traffic was much less than expected.

To establish a truly level playing field and to minimize the use of scarce investment resources in areas other than core transport infrastructural projects:

- the equitization program should be accelerated and increased autonomy and incentives given to SOEs remaining in state ownership, through corporatization (see below for more details),
- major SOEs such as VAC, which are potentially profitable, should be subject to the same financing terms as private businesses, and allowed to develop market-based fare structures,
- where the government wishes to strengthen strategic industries such as international shipping, it should consider doing so not through direct financial assistance but through help in setting up foreign partnerships that require the private partner to share the risks and contribute to transfer of management know-how,
- where SOEs are expected to remain financially unviable even after receiving management assistance, as in the case of the railway, further financial assistance should be given through a performance contract between government and SOE under which obligations on both sides are clearly defined (predictable subsidy levels and service levels) and there are incentives to increase efficiency (minimum financial performance and opportunities for management to use profits for reinvestment if efficiency is increased higher than expected).

3) Accelerating equitization of transport SOEs and complete commercialization of remaining enterprises to foster competition.

There is no economic case for keeping most transport operations in state-ownership so the current equitization program should be accelerated. However there are many obstacles to equitization, including limited financial resources, limited interest by potential buyers, an unfavorable business environment and serious issues concerning how to deal with surplus labor (which is estimated by VINALINES to be as high as 50% of staff in ports).

Experience in other countries suggests that the greatest scope for equitization exists with small-scale entities such as

- road and inland water transport enterprises,
- maritime service organisations, and
- construction and consulting enterprises.

In Vietnam too these offer the potentially easiest equitization targets, free from major issues concerning surplus labor. Equitizing them would enhance competition in the transport sector.

Therefore a two stage approach to equitizing is recommended in which:

- firstly, the small scale enterprises are equitized, and experienced gained about the problems involved, then
- secondly, the larger, more strategic enterprises are equitized, following a review of the rules and procedures based on experience gained in the first stage.

It is clear that, even after accelerating the process, equitization will take many years. Reform of existing SOEs cannot wait until then because of the need to foster competition and efficiency in the transport sector. Therefore it is recommended that competition should be promoted by

(a) giving the SOEs greater autonomy and performance incentives within their respective corporations, by the corporations interfering less in business strategies, and allocation of resources and profits,
(b) converting key SOEs such as main ports and airports into completely autonomous corporations with clearly defined roles, and management accountable to local as well as national interests,
(c) reorganizing certain SOEs such as the railway, which should be organized along a lines-of-business approach),
(d) convert the public service SOEs such as infrastructure maintenance units, ferries and pilotage SOEs, into commercial SOEs to make them more accountable and to give them more autonomy and incentive to increase efficiency,
(e) eventually abolishing the large state corporations and vest state ownership interests in a specialized agency in the General Department for Management of State Capital (GDMSC).

In the case of multi-user facilities such as ports and airports it is recommended that reform strategy is based on five principles to increase incentives for efficiency and promote fair competition - commercial autonomy for each port or airport, separation of port and transport service interests, competition within and between ports, clear demarcation of responsibilities between government and port management, and maximum involvement of the private sector.

The overall approach to each mode can be summarized as follows:

(a) Roads - complete equitization of SOE operators is desirable in the short-term because they are not strategic and not prohibitively large to prevent private sector ownership.

(b) Railway - establish the railway as a single corporation after divesting non-core units such as construction, hotels, cleaning services etc. which can be equitized. Then, in the long-term, considering other options such as splitting up the railway into separate corporations or companies with private investment and allowing competing operators to provide services on the railway.

(c) Inland water - equitize all SOEs but keep the port facilities in state hands, under provincial government, by establishing local port corporations that negotiate management contracts or lease/rent facilities to private operators. Strategic planning and regulation of ports would remain VIWA functions.

(d) Ports - in the short/medium terms, corporatize each port as an independent state-owned business, responsible for managing state assets and developing the port (which can be jointly owned by central and local government). Equitize the cargo handling SOEs and other port operations as financially independent organizations and enable the ports, shipping companies and agents to make contracts for port services. The port corporations would be able to lease out facilities and encourage private sector development of ports, but overall strategic planning and regulation of ports would remain VINAMARINE functions.

(e) Shipping - in the short/medium-term, equitize the smaller shipping and service enterprises (keeping a controlling state share for strategic organisations like VOSCO) and continue to encourage joint ventures so that foreign investment and know-how can be acquired. Where equitization is not possible, then at least VINALINES should adopt an arm's length relationship with its members, limited to requiring a minimum return on assets or fulfillment of contractual obligations between the SOEs and government, avoiding direct intervention in management or allocation of assets. Equitize smaller SOEs of VINASHIN (especially ship repair and similar support units for the subsector).

(f) Aviation - in the short- and medium-term, restructure VAC to give the three Vietnamese airlines more autonomy, divest and equitize VAC support functions. Divest the commercial airport functions of the Regional Airport Authority as airport corporations (with members of the management board from provincial and central government). The regulatory functions of the airport authorities would be retained in CAAV.

4.3 Long-term Strategy for Sector Management

Effective sector management requires a greater degree of decentralization, with government focussed on core oversight and infrastructure management functions, employing better trained personnel.

(1) Overall Strategy

The overall strategy required to achieve these objectives involves the following three elements:

(a) Enhancing Management Systems to Promote Decentralization - requiring measures such as:

- organizational changes designed to allow decision-making at the lowest level, with each organization having the appropriate authority and organization to fulfill its mandates in managing transport,
- definition of management systems and tools for required activities such as policy-making, planning, programming, financing and database handling,
- implementing these systems using guidance documents, monitoring and control mechanisms.

(b) Divesting Commercial Functions - requiring measures such as:

- complete the separation of regulatory and commercial functions,
- promote competition in supply of services (for example, contracting of construction and consulting services).

(c) Human Resource Development - requiring measures such as:

- policy commitment by government to promote human resource development by a clear policy statement setting out goals and specific objectives (including better training incentives and opportunities),
- stronger training incentives (setting higher qualification standards for government personnel, for contracted consultancy and construction services)
- enhanced training capacity (better trained trainers, modern syllabuses, training aids and equipment)
- basis for financing (loans for training, ODA support)

The rationale for this strategy is that decentralizing decision-making should be more efficient (involving simpler administration and releasing senior staff for the more important strategic matters), divesting commercial activities should allow these to be carried out more efficiently by the private sector under truly competitive conditions, and measures are required to tackle human resource constraints. This strategy is also realistic. The government is likely to have extremely limited resources to attract skilled management, for the foreseeable future. The proposed strategy allows MOT to adapt to the present trend of reducing government expenditure on administration, especially at central level, by reducing staff numbers but gradually increasing the number that are properly qualified during the master plan period.

The strategy places emphasis on human resource development because this has already become a bottleneck to transport development - the lack of suitably

experienced and qualified government staff at all levels has been found to be a major constraint on implementing projects and making institutional reforms. The constraint will become even more serious as more modern technology is adopted and more sophisticated planning and management systems are required.

If such a strategy is adopted during the next ten years or so, continued divesting of MOT agencies as independent, self-financing units can be expected leaving only the core oversight functions and infrastructure management under the direct control of MOT. There will be a continued need for developing contractual relationships with external agencies during the master plan period (not only construction services, but also infrastructure maintenance, local planning/engineering consultancies and a variety of other services). Efficient contracting methods will become even more crucial for MOT to obtain cost-effective services (requiring present contracting methods to be improved and allow genuine competition).

Under any scenario, human resource development is central to institutional strengthening. Under this assumed scenario, the strategy for training must take account of the need to create mechanisms for meeting training needs not only within government but also outside. While the need for direct government funding of training will be reduced, government can continue to have a powerful influence over human resource development by setting increasingly higher qualification standards for the services provided. In particular government can be expected to raise standards of:

- infrastructure construction and maintenance work performed by Vietnamese contractors, towards international standards,
- planning and engineering consultancy services offered by local companies,
- a wide range of routine activities required for regulating transport safety, such as safety inspections of road vehicles (which can effectively be done by licensed private workshops, as being considered by VRA).

Raising standards in this way will continue to give a powerful incentive for training and encourage increased finance for training from the private sector (at least for specialist areas above the basic school levels). This in turn will reduce the need for government to finance specialist training and allow the MOT to concentrate on the training needs related to its core oversight functions.

Ways of implementing this strategy are discussed below (drawing on strategies presented in Chapter 2 and for each subsector in Chapter 3).

(2) Enhancing Management Systems

Effective devolution and decentralization of transport sector management over the next ten years or so requires:

- delegation of state administrative powers and responsibilities to the specialized MOT departments,
- formalizing the way that devolved planning and infrastructure management

powers of provinces and districts are exercised, and
- continued redefinition of central responsibilities from direct control to giving overall policy direction and guidance in policy implementation

The proposed implementation strategy is outlined below for each of these three areas.

(a) Delegation of state administrative powers and responsibilities to the specialized MOT departments

So far only limited delegation of responsibilities has taken place. Provisional decrees giving VRA and VIWA appropriate powers and responsibilities have been introduced but these have not been confirmed and the departments have not yet assumed their planning responsibilities. In general the organizations have assumed responsibility and powers for state administration of transport operations and related aspects such as safety, more successfully than they have for infrastructure management (although even with these aspects the need for institutional strengthening remains).

However responsibility for setting technical standards for roads and other infrastructure remains within the MOT. Even implementation of major projects is handled through PMUs directly under the MOT rather than through these departments (apparently with continual interference by MOT and other ministries in the detailed decision-making by PMU managers).

One reason for this lack of delegation is that the specialized departments are new organizations (or at least have been established in their present form for only a few years) and have not yet established the strength to perform their new roles. More importantly, government and MOT appear reluctant to delegate responsibility for day-to-day management tasks.

For these specialized departments to assume the full range of management powers and responsibilities appropriate for state modal administrations, they must be strengthened in future years. Even just to perform their present limited functions they need strengthening - for example, methods of allocating resources between and within maintenance units are not based on rational criteria, causing waste of scarce maintenance resources. To extend their administrative powers in the long term, they need strengthening in the following areas:
- strategic planning of all subsector infrastructure, within the overall planning strategies defined by MOT, including the setting of planning standards such as hierarchies of links and nodes of transport networks,
- setting technical standards for infrastructure construction and maintenance,
- managing state infrastructure, including management of construction projects and the way the infrastructure is maintained and used,
- administration of transport operations and safety/ environmental programs.

This requires the PMUs to report to the specialized departments rather than to MOT, and responsibility for setting technical standards specific to particular modes must be delegated too. Relationships between ministries must also be streamlined to reduce bottlenecks in the planning process (with most decisions made on clear technical, planning and economic criteria within clear overall policy frameworks - minimizing the need for high level decision-makers to be involved in detailed matters).

In turn, for the specialized departments to fulfill these responsibilities adequately, the organization of the departments needs reforming through:

- changes to their organizational structure and definition of powers, duties and responsibilities, based on the new functions that they have to assume,
- development of new management and database systems (especially for planning and infrastructure maintenance),
- production of guidance documents and procedures (a) to implement the new management processes, and (b) to provide adequate control mechanisms (especially where smooth inter-agency cooperation is required to execute administrative processes),
- reviewing staff requirements needed to fulfil the new responsibilities and drawing up human resource development plans to meet future needs (see below for further discussion of these requirements).

Institutional strengthening projects have been underway in the specialized agencies in recent years, focussing on areas such as these[1]. Such projects can be expected to continue in future years, with the focus shifting from general organizational matters, towards the development of specific management systems (especially those requiring specialist expertise only available overseas).[2]

(b) Formalizing the way that devolved planning and infrastructure management powers of provinces and districts are exercised

The provinces already have considerable autonomy over resource allocation in transport and receive finance for transport infrastructure direct from government rather than through the MOT. However, although they are supposed to be responsible to MOT and its agencies over technical matters,

- there is uncertainty about the exact extent of central control, and
- there are generally no adequate mechanisms for central authority to exert control (over such matters as planning standards and technical standards for infrastructure construction and maintenance, and whether or not resources for transport are used in the intended way),
- arrangements for monitoring implementation of policy at local level are very

[1] Although little assistance has been given to VR so far.

[2] Specific proposals for implementing the recommended strategy, in the specialized departments of MOT, are described in the sections for each mode in Chapter 3.

weak (through collection of data on infrastructure conditions, vehicle registrations and accidents).

There is a need to define the division of responsibilities between local and central level, with the goal of delegating authority to the lowest possible level, in order to promote efficient decision-making. This implies responsibilities whereby:

- the provinces and districts are responsible for developing local transport plans, based on national guidelines, and submit these to MOT for approval (based on whether or not the plans are consistent with national plans),
- provinces and districts are responsible for implementing transport policy in defined areas at local level, and report to MOT on the degree to which policy objectives are achieved,
- provinces and districts are responsible for direct management of local infrastructure, based on guidelines for local infrastructure management defined at national level, and report to MOT on management effectiveness (especially concerning how state funds are used, and effectiveness of maintenance programs).

Responsibility for road infrastructure administration has recently been clarified based on such principles (under Decree No. 167/1999/ND-CP dated November 26, 1999) and this could provide a suitable model to apply for other policy areas of road transport and for other modes. However this decree defines MOT rather than VRA as the organization that shall exercise unified state management over roads, and fails to define the responsibilities delegated to VRA, other than those concerning direct maintenance management of national roads. So further legislation is required to confirm the role of VRA in road infrastructure administration (specifically by confirming the Provisional Decision No. 3525/QD-BGTVT/1998 dated December 23, 1998).[1]

(c) Continued redefinition of central responsibilities from direct control to giving overall policy direction and guidance in policy implementation

Based on the description of sector organization in Chapter 1, the MOT clearly needs to strengthen its capacity to guide subsidiary organisations in the way they formulate policies, plans and programs and issue guidance documents to agencies under their control.

In particular, to unify the basis for regulation and promote overall transport system efficiency, a sector-wide approach is required for

- monitoring the sector, including assessment of capacity utilisation, of level of enforcement of regulations and of the competitive situation in main markets,
- updating traffic forecasts and revising the master plan and financial requirements in future years,

[1] Further legislation is also required to define the hierarchy of the transport network, and associated administrative responsibilities for each level (primary, secondary, tertiary).

- refining the evaluation of transport programs (not only projects but also whole policies),
- economic regulation of transport to provide a level-playing-field (through pricing, subsidizing and taxation measures, to the extent that these are consistent with Ministry of Finance policies),
- developing the legal framework to set justifiable standards and regulate the various transport markets efficiently, taking increasing account of safety and environmental considerations.

The MOT does not have enough staff with the required experience to carry out these functions. In particular skilled staff in policy-making and planning are too thinly spread out within the ministry and in external institutes. This leads to staff from the institutes playing a dual role, both as policy-maker within the ministry and as independent advisor to the ministry.

To enable the ministry to function effectively, there is a need to assess staffing needs based on future functional needs, and define a human resource development plan that supplies the required staff through external recruitment and training (see below for further details).

In support of this, the MOT needs to consider how to concentrate its core policy-making and planning staff in a more powerful planning and policy unit and make a number of other organization changes which would reduce the number of reporting lines and make a clearer distinction between (a) those external institutes or agencies that are effectively part of the ministry, and (b) those that are truly independent consultancies[1].

(3) Divesting Commercial Functions

Although the government has achieved much through separating commercial and state administration functions, some commercial functions remain within the MOT subsector or provincial agencies (excluding those in corporations under MOT or the Prime Minister):

- road transport operators under VRA and the provinces
- other inland water and shipping transport operators under the provinces,
- one inland water port (the so-called Inland Waterway Transport and Handling Company in Ninh Binh) in VIWA and other ports under the provinces,
- Nghe Tinh and Qui Nhon maritime ports in VINAMARINE,
- all airports under CAAV

In addition many consultancies and institutes and support enterprises remain under MOT agencies.

[1] Some specific suggestions are given in Section 2.3.

The case for divesting commercial functions from government is two-fold. Firstly it allows government to concentrate its attentions on regulatory/ oversight matters and to do so with less risk of conflicting commercial interests being involved. Secondly it promotes efficiency by allowing these services to be provided on a competitive basis, free from government administrative constraints.

To complete the government's divesting program requires:

- divesting of all remaining commercial units that are better able to perform efficiently in the private sector (or at least in the state sector, separated from the regulatory agency)[1], and
- increasing the extent of competition to provide services to MOT and its agencies.

The proposed strategy for achieving the benefits from divesting is described below.

(a) Divesting all remaining commercial units

Defining the strategy for divesting involves consideration of:

- which units should be divested,
- how they should be divested (for example as private or state enterprises, and in what form)

The method of treating the commercial units listed above[2] should be in accordance with government's overall policy for state enterprises because they do not differ significantly from equivalent units elsewhere in the transport sector. This implies that:

- the remaining road transport, consultancy and other support enterprises should be included in the equitization program, together with other transport service SOEs,
- the remaining ports and airport should be corporatized as autonomous units.

The main issue is whether or not these ports should be corporatized immediately or transferred to a state corporation as an intermediate step. To complete the split between commercial and oversight functions as early as possible, it is recommended that

- the remaining ports under VIWA/VINAMARINE are transferred in the short-term to corporations (NOWATRANCO/VINALINES) in the same manner as other ports,
- in the case of the airports, where no previous experience has been gained from divesting in Vietnam, one airport should be established as a

[1] One current issue concerns the degree to which port and railway infrastructure is divested to commercially-run SOEs, rather than managed by administrations with limited commercial freedom.

[2] Remaining under MOT or subsector agencies, rather than transferred to state corporations.

corporation in the short-term, as a pilot project, and then other airports divested as required (see Section 3.5 for further details)

In the case of some smaller units such as ferries and pilotage, the present legal status of the SOEs (as public service SOEs rather than business SOEs[1]) is an obstacle to further commercialization and eventual divesting. In these cases, it is recommended that their legal status is changed in the short-term to business SOEs so that they are financially independent. In the long-term they can be included in the equitization program.

(b) Increasing the extent of competition

Although many construction enterprises have been established within various state corporations and they are given work by government through competitive bidding, in practice the extent of real competition is limited because

- there are close traditional links between the MOT and the construction SOEs[2],
- there is an expectation in the construction industry that work should be divided between all SOEs to some extent,
- quality standards defined by contracts are low, so there is little incentive for contractors to offer better service,
- in some cases, like in inland water transport, there are reported to be price regulations which prevent competition on price by competing contractors,
- various competitive restrictions apply to foreign contractors[3].

The international contractors complain that they have insufficient choice over local partner, that some local partners do little work considering the amount that they are paid, and that there are too many complicated regulations and bureaucratic procedures which incur significant expense to remove[4].

However as the economy develops, construction costs will inevitably rise, and future constraints on competition in the construction industry would have serious effects on the capacity of government to implement the master plan, by:

- increasing construction costs, reducing the amount of infrastructure

[1] See Chapter 1.2 for a description of the difference between the two types.

[2] And these links continue because the SOEs are in corporations that report to MOT.

[3] Their inputs are kept to the minimum required to satisfy international lending conditions, they are sometimes required to form joint ventures with local enterprises in order to work in Vietnam, there are many complicated regulations which restrict freedom to employ staff and cause tax disputes.

[4] However these complaints could not be confirmed in practice - for example, although the quality of work may be low, current costs of construction in Vietnam are acceptable by international standards, so there is no evidence of inefficiency.

rehabilitated or constructed with a given budget, and
- reduce the transfer of experience and know-how from foreign to Vietnamese contractors, increasing the country's long-term dependence on foreign contractors and reducing the potential for taking on overseas work.

It is therefore recommended that a strategy is adopted to increase the basis of competition in the transport construction business by:
- giving high priority to equitizing all the transport construction SOEs in order to place them at greater arm's length from government,
- giving responsibility for representing the residual state ownership interests to the General Department for Management of State Capital, not to MOT or its agencies, to make a clear separation between customer and contractors,
- raising qualification and work standards for contracted work, to increase value for money invested by government in infrastructure,
- defining stricter procurement standards and guidelines to protect the interests of the (state) investor,
- removal of remaining legal controls on contracting prices,
- appointing a government antimonopoly or competition agency to oversee the competitive bidding process (setting rules and monitoring adherence).

Competition in infrastructure maintenance is limited at present because most maintenance is carried out by public interest SOEs (which do not have financial autonomy, and have little incentive to be efficient). Although the scope for introducing competition in maintenance is harder than for construction (for example because contracting methods cannot as easily be applied) the following steps can be taken over the long-term:
- changing the legal status of maintenance units to enable them to be paid on the basis of output produced, such as km of road maintained, rather than on the basis of the costs of inputs such as materials consumed, and
- introducing contracting for those maintenance tasks which can be defined in a contract and which can then be awarded through a competitive process.

(4) Human Resource Development

The training needs for institutional strengthening of transport sector management cannot be considered in isolation from the training needs for the transport sector as a whole. Many of the skills required from people working in transport in central or local government will be the same as those required from those working outside in the transport industry or in consultancies and research institutes that serve government. To perform the state function of infrastructure management it is necessary to rely on external contractors for construction and maintenance.

The human resource development needs in the transport sector can be defined[1] in terms of:

(a) government agencies concerned with transport sector management (MOT, its subsector agencies, provinces, districts, other ministries with an interest in transport such as Ministry of Police, MPI etc.),
(b) support agencies who work under contract to these government agencies, offering advisory/consultancy services,
(c) the transport industry (transport operators, including operators of ports, airports and passenger/goods terminals)
(d) support organisations (infrastructure construction and maintenance, equipment maintenance/repair, freight forwarders/agents)

Assessing the training needs of sector management ideally requires, in the first instance, an assessment of future institutional strengthening needs throughout the transport sector, taking account of the future functions undertaken by each organizational unit, required staff and qualification levels. Although a start has been made at assessing these needs in the subsector agencies, relatively little has so far been achieved at provincial/district level, and within the MOT and its support agencies. Even so, past assessments of training needs have been able to highlight priority areas and approximate resources required.

Assessing training needs of the transport industry and support organisations in practice can only be approximately estimated because they cover such a wide range of fields and includes much in the private sector. Most of this training has to be financed from the staff or their employees, and the extent to which they pay for training is particularly difficult to estimate. Therefore training needs must be based on surveys, of representative parts of the sector, of likely skill deficits, taking account of future operating standards and technological conditions and the attitudes towards training. Trends in training outputs in training institutes also provide a useful indicator.

Some recent initiatives have tried to correct this situation: for example (i) the survey recently launched by MOT to assess the existing employment situation in the transport sector, and (ii) the report prepared by Vietnamese Railways (VR) on the Renovation of Management and Business Work in the Railway Sector (1998) which outlines VR policy on developing human resources up to 2020 and includes the breakdown of employees required by broad categories (post graduates, engineer schools graduates and vocational schools graduates, skilled and unskilled workers).

In order to allow approximate estimates of future training needs to be made, currently available information has been assembled in Appendix F. This appendix also includes details of main training institutions in transport.

[1] The types of staff and required skills were indicated earlier in Table 2.3.2.

Based on past studies of training needs described in this report, the extent of future training needs can only be hinted at because there are no clearly defined qualification standards for future needs, nor much idea about how much training existing people need to achieve those standards. The private sector needs are generally ignored. In the case of the MOT and its subsector agencies, even the job specifications required in future years have not been defined in detail. However existing estimates by MOT and past consultancy studies do indicate the numbers of people who need some sort of training[1].

The graduate/post graduate institutes can generally only offer poor quality, out-of-date training in transport. To provide the needed training for transport sector management, there is a need, in the Hanoi University of Transport, VIMARU and ITECSOTS, for

- retraining of teachers,
- reform of curricula,
- upgrading of textbooks,
- upgrading of reference materials, and
- improved availability of modern teaching aids (hardware and software).

There are few institutes able to offer courses on modern management aimed at the needs of the transport industry. This is an area where several institutes can develop courses, probably specializing in different markets and modes. For example the railway technical vocational school offers retraining courses on railway management aspects such as accounting and financing. The ITECSOTS has already begun to offer courses on transport economics and business administration. The requirements for improving management training in the transport sector are similar to those identified above for sector management training (better teachers, courses and training materials).

Other training for transport industry non-managerial staff is currently provided by the Technical and Vocational Schools. They are supply-oriented rather than demand-oriented and tend to specialize in particular modes. Much of the training is too theoretical in nature since there are few facilities for practical training. The trainers lack knowledge of modern technology and market economic principles. Past studies have stressed the importance of train-the-trainer courses and have proposed huge investments, but these proposals have apparently not been accepted by government. Until higher qualification standards are demanded in the transport sector, with commensurate rewards for high achievers, incentives for better training will remain low.

Based on past studies and our assessment of future demand and existing training capacity, the following strategy is proposed for transport training:

[1] These are shown in Tables 2.3.3 to 2.3.5, for each type of personnel, but not including the private sector fully due to lack of data.

(a) in the short-term the MOT renews its commitment to human resource development in the transport sector by a clear policy statement which sets out the goals and specific objectives including (i) increasing training incentives such as higher minimum qualification standards for MOT staff based on its future needs, and higher qualification standards for contractors where justified, (ii) increasing training opportunities through reorienting training institutes and programs to serve modern needs,

(b) in the short term, the MOT strengthens the Labor and Personnel Department to assess the human resource development needs, and to develop policies and specific strategies, including a training plan for the MOT and its related agencies, based on an institutional reform study which identifies the number and qualifications of future government personnel in transport sector management (central and local levels),

(c) as part of the human resource development plan, based on the forecast increase in qualification standards for contractors and other developments, an indicative estimate should be made of training needs of the transport industry and support industries (state sector and private sector), giving clear training priorities for the medium- and long-term,

(d) it is recommended that potential users should be involved in defining the training plan in order to identify real needs and assess private sources of finance (the extent to which training can be self-financed by the transport industry),

(e) the MOT should identify those areas, such as training of government personnel or basic education, where government finance is justified, and seek the training in the most cost-effective way, by upgrading the training institutes and make them demand-oriented,

(f) in particular, the MOT should work with the Ministry of Labor to define more relevant, modern nationwide standards for technical training and apply these in the vocational and technical schools,

(g) the MOT should seek international assistance in those areas where local expertise is particularly lacking, for example in commercial aspects of transport business management, and in modern transport planning and economics aspects and the Labor and Personnel should improve cost-effectiveness of ODA-funded training by coordinating such training activities, so that they can benefit a broader range of people (by making seminars and courses open to staff not directly involved in particular projects),

(h) where it is necessary to raise qualification levels and training standards towards international levels, the government should seek ODA support through train-the-trainer courses, upgrading of basic training capacity and overseas training in specialist areas,

(i) to minimize training costs, the MOT should in the long-term establish its training institutes as independent self-financing units and satisfy its own training needs at least cost through contracts and fees paid for specific courses at the institutes able to offer these at least cost,

(j) and to increase access to training, especially among the poorer sections of the community, the MOT should assess the feasibility of establishing scholarship or student loan schemes.

4.4 Short-term Policy Priorities and Institutional Changes

4.4.1 Introduction

The recommended policy and institutional changes over the next five years are based on the long-term strategies for the transport sector and each subsector described in Chapters 2 and 3. These strategies complement recommended master plan investments, aimed at operational and infrastructural improvements for each subsector. They include policy actions and institutional reforms to improve:

- competitive frameworks,
- institutional arrangements, including sector management and SOE reform, and
- funding of transport activities.

Possible ways to support implementation of the short-term plan, through appropriate policy and institutional strategies, are discussed below.

4.4.2 Implementation Priorities

As described in Chapter 3, a wide range of policy actions are required for each transport mode to: (a) to increase efficiency, safety and level of transport service, and (b) to provide the planned infrastructure cost-effectively with adequate funds.

However effective implementation of the master plan requires policy-making to be based not just on the viewpoints of each mode but rather based on a view of the transport sector as a whole. This, in turn, requires effective transport sector policies in each of the following areas:

- Provision of a regulatory framework and enforcement mechanism to ensure efficient, competitive transport services, so that the proposed infrastructure investments achieve the intended benefits without excessive external costs such as accidents and adverse environmental impacts,
- Development of effective planning capability, to achieve objectives effectively at reasonable cost,
- Development of adequate construction services, to provide the required standards of infrastructure with minimum cost,
- Establishment of an adequate infrastructure maintenance capability, so that the improved infrastructure provides the expected improved transport conditions over the full planned lifetime,
- Provision of financial mechanisms for development, maintenance and overall management of the infrastructure, to provide sustainability, and

- Strengthening of sector management to coordinate reform and implement policies and projects.

The requirements in each of these policy areas, in the next five years, are discussed below, based on the strategies set out in Chapters 2 and 3 of this report. A tentative implementation plan is then proposed at the end of the chapter.

(1) Provision of a regulatory framework and enforcement mechanism to ensure efficient, competitive transport services

The long term strategy for establishing the competitive environment for transport services (summarized in Section 4.2 above) involves three aspects - a regulatory framework that meets minimum safety /environmental standards and fosters competition, economically efficient pricing and cost recovery measures, and equitization/commercialization of SOEs. The short-term actions required are set out below for each of these three aspects.

(a) Implementing the regulatory framework for transport

Implementing the regulatory framework to meet policy objectives involves, as described in Section 2.4:

- setting clear, minimum technical standards (justifiable on safety and environmental grounds),
- development of effective safety/environmental programs (i) to increase enforcement and achievement of those minimum standards, and (ii) to minimize adverse impacts of transport,
- minimizing barriers to competition in order to promote efficiency.

The short-term implementing considerations for each of these three areas are described below.

There is an urgent need to set clear rules to transport users throughout the transport sector, but this applies especially in roads and inland water transport where the basic legal framework has not yet been implemented. Developing safety/environmental programs is also important (especially in roads, inland water and maritime transport), while developing the institutional capacity for enforcement is vital to implement these programs in practice. Setting rules involves a considerable program of legislation over the next five years, covering:

- implementing the modal acts in road, inland water and railway transport in accordance with government transport policy,
- introducing new implementing rules and regulations in these and other modes to set specific justifiable technical standards and ensure competition (with regulations generally that minimize entry controls and ensure no control on tariffs except where justified to control monopolies), and

- multimodal transport (for which there are virtually no specific regulations at all, but where existing legislation in other areas such as customs procedures severely hampers development of multimodal transport).

When developing the technical standards account should be taken of the following.

- Are they justified in terms of safety/environmental benefits that outweigh the costs of regulation (in terms of administration and the effect on operating costs)?
- In particular, technical standards should be based on the physical condition of the vehicle/vessel and not on its age.
- Account should be taken of future international agreements when drafting legislation to avoid unnecessary obstacles to cross-border transport and development of multimodal transport.

Safety strategies have been adopted by government but specific programs have not yet been defined in some cases. The master plan includes investments in safety measures (mainly infrastructure-related equipment). Based mainly on the World Bank's Road Safety Strategy Study, supplemented by VITRANSS analyses for other modes, these investments require the following supporting measures:

- inclusion of safety audits as a routine part of infrastructure designs for roads, to reduce accident risks following infrastructure improvements,
- improvement of accident reporting systems, especially to establish a road accident database system, to enable further development of safety strategy to be based on reliable information,
- further refinement of safety strategies in key areas, (for example, in the case of roads, how to target scarce resources at key areas such as driver training, vehicle inspection, education and enforcement),
- training programs for officials involved in safety matters (safety inspectors, engineers, police etc.),
- transfer of the railway safety inspectorate from the railway headquarters to the MOT, in order to enable inspectors to deal with the railway more at arm's length, and strengthen their capacity to oversee safety standards under the more commercial environment expected to be put in place on the railway,
- increasing resources for implementing safety plans, especially in crucial areas such as safety audits in new road designs, well-targeted road safety education and enforcement measures, and maritime vessel inspections (to meet international Port State Control safety standards),
- identifying ways to finance safety activities more effectively (through increased charges for inspections/registrations, increased state budget allocations, or use of potential new sources such as the road fund).

Specific recommendations on minimizing adverse environmental impacts of the proposed master plan projects are given earlier in this report. In particular, the focus of comprehensive environmental impact assessments are suggested for different kinds of projects. To strengthen the capacity of MOT and its agencies to implement these proposals:

- continued support should be given to the current Canadian-Vietnamese project in MOT on Environmental Impact Management to implement new environmental policies and pilot EIA systems, and
- implementation of the recommendations of this project should be made, more broadly within the MOT and its agencies, once the results of the pilot projects are known.

Minimizing barriers to competition is a vital plank of transport regulatory strategy in the short-term, especially to foster competition where major SOE operators, established in the past, continue to dominate markets. Following the recent scrapping of transport licences and the proposed introduction of anti-monopoly controls by government, there is now a good opportunity for establishing freer competitive conditions, as follows.

- The reintroduction of any further licences or controls on transport operators should be resisted unless justified on competition or safety/environmental grounds - the main area where justification may be found is in urban bus operation where government intervention may be required to ensure competitive conditions (for instance to introduce competitive tendering for route licences or franchises). The power to impose such conditions should be held by MOT, to be decided for each city on a case-by-case basis.
- There is no economic case for introducing this type of control to non-urban bus services so, following the removal of transport licences, remaining controls by provinces on numbers of operators or buses operating within or between provinces, should be completely removed.
- Existing safety and environmental standards can be effectively maintained and strengthened through enforcement of licensing of drivers/captains/seafarers and inspection/registration of vehicles/ vessels. None of these licences or regulatory provisions have been scrapped but they need strengthening to set higher safety standards in some cases. For example, in shipping, Vietnam has to reach international standards under international agreements - for inspecting ships in Vietnam ports under the Port State Control provisions of the Tokyo MOU and for the training standards of seafarers under the STCW Convention. However incorporating knowledge of transport rules and regulations in testing of road vehicle drivers and waterway operators will only be worthwhile once the legal framework is in place, with clear rules.
- No additional minimum financial requirements should be introduced for transport operators other than those included in the business licence provisions, so that entry controls are minimized.

- Responsibilities of local government over local transport facilities should be clearly defined in the future legislation - including their responsibility to promote competitive services and to provide operators with road-side stopping facilities and land for terminal development (preferably by operators or specialist businesses on a commercial basis). Bus service registration requirements may be required for urban bus services (if approved by MOT in designated cities) in order to allow local authorities to plan and coordinate services, facilities and traffic management schemes in urban areas.

(b) Implementing economically efficient pricing and cost recovery policies

The priority in the short term is to enhance competitive conditions by

- implementing those policies that remove major distortive impacts on competition (for example remaining price controls) and are relatively simple to take in the short-term, and
- agreeing specific objectives for implementing other policies that are less easy to implement in the short-term, and work out the next steps to be taken (for example obtaining government and transport user support for changes to road funding).

Accordingly the following recommendations are made.

- All remaining general fares and tariffs controls should be phased out within the next two or three years or, if government wishes to keep tariffs below cost, replace these controls by specific subsidies awarded to transporters who can provide the service most efficiently (at minimum cost to government).
- Other distortions such as differential infrastructure charges for coastal and international shipping should also be phased out to establish a level playing field and (in the latter case) to avoid having to raise charges on international shipping to excessively high levels.
- Consideration should also be given to introducing an axle load fee in road transport, in order to increase cost recovery from heavy vehicles and encourage use of vehicles that minimize road maintenance costs.
- The MOT should seek agreement with the Ministry of Finance on the principles of charging for infrastructure provision, if possible to allow a greater range of services, such as maintenance, to be provided on a commercially self-financing basis (see further proposals on funding described later).
- Priority should be given to improving infrastructure financial systems and information to provide a better basis for assessing cost-recovery and the relative merits of alternative approaches to charging.

(c) Equitization and Reform of Transport SOEs

In the short-term, as described in Section 4.2, the priority in equitization is to define a timetable for equitizing small-scale transport entities and implement it.

The results should be monitored so that the equitization rules and procedures can be developed further and applied to larger scale entities (see Section 2.5 for further details of recommended strategy).

In the case of SOEs that will not be equitized in the short-term, the priority is to implement, on a pilot project basis, a range of commercialization or corporatization reforms, so that these can be applied more generally in later years.

In particular the following actions are proposed:

- equitizing all road transport service enterprises, the smaller inland waterway enterprises, and the maritime service enterprises (under MOT and the provinces) within three years if possible,
- equitizing the construction and dredging SOEs within five years, by a step by step program that equitizes increasing numbers of SOEs evenly from the various parent corporations (to avoid upsetting the competitive balance between these corporations),
- establishing the railway as a demand-oriented corporation, reorganized along lines-of-business, and negotiate a performance contract between the railway and MOT to determine terms of subsidy and investment (see Section 3.2 for further details),
- transferring inland water ports to provincial government ownership and introducing management contracts (and even leasing contracts if potential investors wish to invest in container handling services),
- immediate action to direct VINALINES and other corporations to manage their members at greater arm's length - without direct control of resources and on a more commercial basis (fee for management services approach),
- reviewing current plans to separate responsibility for port infrastructure and operations, reviewing all possible options, with broad consultation, to identify the option which best promotes port efficiency and level of service, while safeguarding government's financial interests,
- depending on the results of the above review, carrying out port reforms on a pilot basis - for example, corporatizing at least one main port within two years, establishing a management board which includes local user interests, and contracting out handling services - and monitoring the results so that the other ports can be reformed in a similar way in later years,
- establish a new airport corporation within five years, as a pilot project, to take over commercial activities from CAAV at one airport,
- divesting aviation support companies from VAC to stimulate competition in supply services to airlines and airports,
- divesting remaining commercial functions from the specialized management departments of MOT (such as remaining ports under VIWA and VINAMARINE and the airports from CAAV) to separate commercial and oversight functions, and

- developing SOE training programs for use of new technology and management systems, and to increase commercial management skills.

(2) Development of effective planning capability

The master plan has been developed in terms of a functional classification of nodes and links (primary, secondary and tertiary). Although this gives a sound framework for future national transport planning, more needs to be done to define the plan in detail at primary and secondary levels (for example in terms of defining technical standards and type and exact location of new ports), and to develop local level transport plans further (for example defining tertiary networks and technical standards). Defining the primary, secondary and tertiary (including rural and urban) network proposed in the VITRANSS and complementary studies, should be further elaborated and institutionalized in terms of functional status, technical standard and specific management responsibility, in order to provide a clear basis for planning each level of the network hierarchy.

Efficient planning is hindered by the lack of delegation of basic infrastructure management functions to the specialized MOT departments, which have weak capacity to act as state administrators for each mode of transport, other than for particular purposes such as direct management of infrastructure maintenance[1]. At provincial and district level, the transport administration departments also have insufficient capacity to plan and manage infrastructure under their control, and they lack guidance and overview by the specialized MOT departments to help them fulfill their role and to develop local plans which are consistent with national plans. At present the database for network planning is extremely weak and better coordination and institutional strengthening of planning database management is required throughout the transport sector.

(a) Defining the Primary and Secondary Network

Based on the VITRANSS proposed network there is a need in the short-term for the following measures by MOT and its agencies:

- enshrine in law the functional status of the primary and secondary transport infrastructure,
- confirm and specify in more detail the network technical standards proposed by VITRANSS,
- complete infrastructure inventories, assess existing conditions in detail and keep up-to-date the network improvement plans,
- review responsibilities for management of infrastructure to delegate planning and possibly technical standards and project implementation functions, and to ensure that responsibilities are clear and do not overlap, and then incorporate these responsibilities in new decrees which define

[1] In particular, technical standards are still set by the Science and Technology Department of MOT and implementation of large projects is managed by PMUs.

the organization, functions, tasks and duties of the specialized MOT departments,

- in particular this requires clarification over responsibilities for inland water infrastructure and it is recommended that this is resolved as described in Section 3.4.2, based on the principle of assigning responsibility based on the main function of the infrastructure for either maritime or inland water transport,
- all the specialized departments of MOT should increase their capacity for planning/evaluation and management of infrastructure in the short-term so that planning and project implementation responsibilities can be increasingly devolved over the next five years, leading at some stage to the PMUs reporting to the specialized departments instead of directly to MOT,
- in particular, database systems must be developed in all subsectors in the short-term to provide managers with reliable and relevant information for decision-making (and a planning database also established to consolidate the planning expertise and systems developed during the VITRANSS study),
- planning activities of multi-user facilities such as airports must be carried out in close cooperation with the users,
- define the need and scope for further studies where required to develop the network plan in more detail[1].

(b) Defining the Tertiary Network

Although there are plans in the short-term to strengthen rural transport networks, little consideration has so far been given to planning and developing the intermediate network between rural and national levels. Lack of existing planning information, clear definition of networks and local planning capability means that this is a priority area for improvement in the short-term, involving the following actions to ensure adequate transport links between national and local levels:

- provincial and district authorities should develop tertiary network plans and propose these for approval by MOT and its agencies,
- the MOT should guide and assist local planning by providing specific planning guidelines[2],
- the MOT and its agencies should review these plans and ensure that they meet nationally defined standards and are mutually consistent between modes and between planning areas,

[1] Such as for Vung Tau port which needs a comprehensive study of alternative locations and designs, taking account of developmental impacts and costs

[2] Such as (a) the basis for classifying links and applying technical standards under the range of conditions found in different areas, and (b) how to relate transport planning to overall infrastructure planning in rural areas.

- in particular the MOT should ensure that local plans take account of connectivity issues between sectors (especially important in rural planning) and between modes (especially between road and inland water transport[1]),
- the MOT should also ensure that clear responsibility is given for all transport infrastructure (for example no overlaps or gaps between national and local levels),
- once approved the provincial authority should establish an inventory of network conditions on which to base future improvement and maintenance programs,
- the provincial authorities should strengthen their capacity to carry out network planning and evaluation as outlined above (requiring new planning/evaluation methods and database systems and training in their use).

(3) Development of adequate construction services

To provide better quality infrastructure at minimum cost, short-term actions include raising technical standards and improving competition in the planning/design/construction business.

(a) Raising Technical Standards

To raise the quality of Vietnamese contractors and consultants in the short-term requires stronger incentives for training and investment in better equipment and construction systems. These can be increased by:

- MOT making a clear policy regarding future qualification and work standards for contractors bidding for locally- and foreign-financed construction/rehabilitation work,
- for foreign-financed work, the policy should specify a target date by which Vietnamese contractors should meet internationally-approved standards (such as the International Federation of National Associations of Consulting Engineers (FIDIC) standards approved by most donors),
- implementing this policy in a step-by-step way that allows the contractors to develop training courses and improve standards.

(b) Improving Competition

To improve competition in the construction, dredging and similar businesses in the next five years,

- construction and dredging SOEs should be equitized step-by-step as described earlier, so that government handles the contracting process at more arm's length from the construction industry,

[1] Where these modes may play complementary roles, require smooth inter-connections and where planning of bridges must be coordinated to allow each mode to play its intended role at minimum overall cost.

- procurement standards and guidelines should be reviewed and, where necessary, improved (as already done for internationally-funded road construction and is currently being done for inland waterway dredging),
- removing restrictions on foreign construction companies bidding for construction work (requirements to enter into joint ventures, staff employment controls etc.),
- where limited competition exists, the MOT should actively seek to increase the number of contractors submitting bids for construction/maintenance contracts,
- remaining government controls over contract prices and costs should be removed, and
- consideration given to assigning to any proposed government antimonopoly agency, the task of monitoring contracting throughout the country in order to oversee the competitive bidding processes (to set state contracting rules/standards and monitor adherence).

(4) Establishing an Adequate Infrastructure Maintenance Capability

To ensure that the infrastructure improved under the master plan provides better transport conditions over the expected lifetime, high priority must be given to improving maintenance standards and systems in the short-term, both for primary/secondary infrastructure mainly under direct central government management, and for tertiary infrastructure mainly under local government management.

(a) Improving Maintenance of Primary and Secondary Infrastructure

As described in Chapter 3 for each mode, a wide range of measures have been proposed in past studies and institutional strengthening projects in all subsectors to:

- increase standards of maintenance,
- improve maintenance planning and evaluation systems to develop appropriate strategies for Vietnamese conditions (and allow maintenance resources to be efficiently allocated),
- introduce modern infrastructure maintenance management systems,
- strengthen the capacity of MOT specialized departments to manage maintenance, with new guidance documents and procedures, and training for personnel in new systems and procedures,
- increase management incentives by extending the amount of maintenance carried out under competitive contract,

- increase management incentives in internal maintenance units by giving them greater autonomy but making them more accountable for services offered[1].

To increase incentives for implementation of these reforms in the short-term it is recommended that specific targets be adopted by the MOT specialized departments for implementing these reforms, including:

- implementation of the higher required maintenance standards and systems for all infrastructure improved under the master plan, and
- specific targets for amount of infrastructure covered by new maintenance systems in future years.

(b) Improving Maintenance of Tertiary Infrastructure

Relatively little improvement has taken place in maintenance of tertiary infrastructure so this deserves close attention in the next five years. However sustainable progress cannot be achieved until the basic networks and facilities, and their technical standards, have been defined, and responsibilities for maintenance been clarified as recommended earlier. Improvements in maintenance are generally required in all areas, often involving the replacement of existing ad-hoc arrangements with completely new systems and working arrangements, including:

- definition of technical standards that are defined centrally but take account of the range of local conditions,
- linking maintenance planning and financing to the planning of rehabilitation/upgrading/ new construction, so that adequate resources are available to maintain new or improved infrastructure,
- development of modern maintenance systems and maintenance programs adapted to suit needs at tertiary level, based initially on new comprehensive inventories of infrastructure and its condition, and new monitoring procedures to keep the inventories up-to-date and to base planning of future investment and maintenance,
- capacity strengthening of provincial maintenance units, led by the MOT agencies with suggested guidance documents and procedures (adapted if necessary to suit local conditions), with training for provincial and district staff in implementation of new systems, documents and procedures,
- where opportunities exist, conducting trials of various ways of delegating maintenance responsibilities to local organisations under contract (for example, paying local contractors for carrying out defined maintenance tasks that can be monitored).

[1] For example by giving the managers fixed budgets conditional on maintaining infrastructure to defined standards, in conjunction with greater freedom in organizing work, employing staff and purchasing supplies.

Because of the vast scope of improvement required, realistically only the first steps can be taken over the next five years, such as:

- defining technical standards for tertiary infrastructure and its maintenance,
- preparing management systems in some pilot provinces and training staff in their implementation, and
- monitoring implementation so that the improvements can be applied more generally in later years.

(5) Provision of Financial Mechanisms for Development, Maintenance and Management of Infrastructure

Implementing the master plan requires improved financing in the short-term, both for maintenance/ management and for rehabilitation/ upgrading/ improvement/ new construction of infrastructure.

(a) Providing a predictable supply of funds for maintenance

The first priority is to improve maintenance planning and management as described above, so that available resources are allocated more effectively and the need for additional resources is minimized. However, even after making such improvements, current financial allocations would be completely inadequate to meet future needs, and better mechanisms are required to implement the planned maintenance programs. The possible improvements cover a range:

- implementing radically new mechanisms such as the commercially managed fund proposed for roads, in which a board (including road user representatives) manages an off-budget fund derived from user charges (not earmarked taxes),
- some other form of fund in which tax revenues from users are allocated by the Ministry of Finance for maintenance purposes,
- a more straightforward maintenance budgeting system in which future needs are provided based on planned maintenance programs.

At present Vietnam has none of these. Allocations of funds are only approximately based on simple norms (like cost per km of route) and it is neither possible to estimate real needs in detail, nor to follow up if the funds have been used for the intended purposes.

Any of the three types of improvement could be considered in Vietnam for each mode of transport. The commercially managed road fund is being actively considered in Vietnam - see Section 3.1 - involving investigations about how such a scheme could best work in this country (including what would be the composition of the road board and how would they manage the fund, to which ministry would it report to, what would be the coverage of the fund, what user charges would provide the funds, what level of charges to

apply, what compensation mechanisms for non-road users would be required, and what legal changes would be required to implement the fund).

The road fund concept has many potential advantages for Vietnam such as

- enabling finance for road maintenance to be raised with support of road users, and
- improving efficiency and accountability.

Therefore it is recommended that the road fund is seriously considered for introduction in the short-term, to provide a stable source of funds for maintenance. Initially, to avoid raising issues about raising the fuel price and other charges, consideration should be given to introducing the road fund using existing levels of road maintenance funding. Later in the next five years the amount handled by the fund can be raised step-by-step, especially through introducing the axle weight fee and by raising the fuel levy on gasoline (rather than diesel, which would require the issue of compensation to non-road users to be addressed). This would allow road maintenance funding to increase by almost 100% by 2005, without raising the issue of compensation payments.

However it will take some time to decide these issues and to confirm the practicality of this approach. Meanwhile other approaches are required to improve the way that maintenance of infrastructure of roads and other modes is financed. In the short-term, priority should be given to improving the budgeting system, which has to be improved whichever financing mechanism is adopted later on. This implies, for each mode:

- reviewing current budgetary procedures and defining overall needs for improvement (especially to clarify division of responsibilities between central government, and provincial and district governments),
- where necessary, making changes to budgetary responsibilities and procedures (especially to improve planning and follow-up of the way that funds are used),
- introducing, as described earlier, improved systems for maintenance planning and costing, and for monitoring infrastructure condition.

A start has already been made for roads by clarifying the legal basis for assigning responsibilities for each type of road, and the VRA is currently receiving assistance on improving maintenance planning/costing of national roads. This should lead, step-by-step, to improvements in the budgeting of maintenance finance for national roads, and enable MOT/VRA to approve and monitor maintenance activities (on all national roads within five years and eventually on all roads). Similar improvements could be made over the next five years under the proposed Rural Transport Project. However work has not yet started on equivalent improvements to other provincial/district roads.

Similar improvements in maintenance planning are being made for inland waterways with a view to implement an improved system within five years, but work has yet to start on improving maritime maintenance planning (which is a priority area for improvement).

(b) Developing new sources of investment finance

Over the master plan period it is expected that decreased reliance can be placed on ODA funding of transport, and the government is actively considering new sources of investment finance which can be mobilized through a transport development fund, including a savings account that can raise local finance. New sources of finance are also required if the private sector is to invest in large-scale shipping.

Improving the supply of local finance in the short-term could potentially help to promote much greater investment in transport because, according to the Ministry of Finance, many foreign investments cannot currently be disbursed because of lack of reliable supply of counterpart finance.

There is scope for attracting foreign investment finance for infrastructure through direct investments, Joint Ventures and BOT-type arrangements. However at present there is limited interest in making such investments. Nevertheless, to encourage increased foreign investment in the longer term, the following steps can be taken in the next five years by government, working together with MOT:

- to remove obstacles to foreign investment such as restrictive laws on foreign businesses, controls on prices, use of foreign capital and repatriation of profits,
- specifically, to tackle the issue at national level of how government handles the problem of surplus labor in large scale SOEs, so that labor issues are not a major obstacle when considering future investments in ports,
- in particular to seek to remove the transport sector from the list of sectors subject to special restrictions on foreign investment (especially considering that, in connection with modern logistics systems, transport is often considered as a mere link in the production process),
- to make clear the conditions under which liabilities would be placed on government (for example development risks under BOT schemes) and the foreign investor (labor obligations),
- to require Vietnamese banks to offer credit to private companies on the same basis as to SOEs.

(6) Strengthening of Sector Management

The overall strategy for development of sector management, described in Section 4.3, involves enhancing sector management systems to allow decentralization,

divesting commercial functions to separate commercial and oversight functions, and promoting human resource development. The MOT has to play a key role in implementing each component of this strategy. At ministerial level, short-term actions are required to:

- establish a coordinated regulatory framework for the sector as a whole, especially to ensure that competitive forces assign traffic to each mode in an efficient way and that there are smooth links between modes,
- strengthen the planning and policy-making capacity of the MOT,
- improve the supply of reliable information to decision-makers in MOT and its agencies,
- coordinate institutional changes throughout the sector to decentralize powers/responsibilities, clarify responsibilities and remove areas of overlap,
- coordinate human resource development in the transport sector,
- strengthen the basis for financing transport infrastructure, both for regular maintenance and for developing infrastructure, and transport equipment,
- implement the equitization and SOE reforms in the transport sector.

To implement the master plan, in conjunction with these wide-ranging reforms in the transport sector, is a major challenge for MOT in each of these areas, as described below.

(a) Establishing the regulatory framework

Continued guidance is required from MOT to ensure that the drafting efforts at subsector level produce proposals that are consistent with government's overall transport policies and strategy, especially for

- multimodal and international aspects, which cannot be handled adequately at subsector level,
- ensuring that the removal of entry barriers achieved through the recent scrapping of transport licences is consolidated in any further legislation (for example by avoiding the introduction of licences or regulations on transport operations that impose additional minimum financial requirements or unjustifiably restrict competition[1]),
- helping to define the role of local authority in transport regulation, in promoting competitive services through provision of land for terminals and efficient traffic management,

The MOT should also seek agreement with the Ministry of Finance on the principles of charging for infrastructure (if possible to fund maintenance through commercial user charges rather than taxes) and work with other ministries to phase out remaining tariff controls on:

- provincial bus routes, if any controls remain,
- truck tariffs in mountainous areas, replacing these if required with subsidies for specific services offered,

[1] In particular, the quantity licence controls on interprovincial bus operations should be scrapped.

- movements of rice and fertilizer on the railway,
- railway passenger tariffs (with two tier charging for foreigners and Vietnamese),
- maritime and inland water port tariffs,
- air transport tariffs (for both Vietnamese and foreigners), and
- support services such as dredging and construction.

(b) Strengthening planning and policy-making capacity of MOT

Planning and policy-making capacity of MOT is weak because there are not enough staff with the required experienced. This weakness is found throughout each of the core areas:

- regulation, pricing, subsidy and cost recovery policy-making,
- project and policy evaluation,
- strategic planning,
- monitoring of policy and project implementation.

Furthermore existing expertise is spread out in different general departments and in external institutes. Planning data is also difficult to obtain although the VITRANSS study has managed to assemble and develop this during the last year.

To strengthen MOT's capacity it is recommended that:

- an institutional reform plan is developed aimed at strengthening MOT capacity in these core areas (covering organizational changes, functional definitions, management tools/procedures, staffing and training),
- in particular consideration should be given to concentrating expertise in planning and policy-making in one department such as the Planning and Investment Department,
- strategic planning is improved through modern planning/evaluation methods and clear guidelines so that investment priorities can be established on a rational basis and decision-making delegated to a lower level, allowing senior decision-makers to focus on overall policy and strategic matters,
- in support of better planning, the VITRANSS model should be developed to update the forecasts as and when better planning data become available, and continue to analyze future policy options,
- regulatory and cost recovery policies are developed using financial analysis tools,
- systems are developed for monitoring policy implementation (by a unit with responsibility and enough authority for following up bottlenecks and removing them), and
- an external agency such as TDSI is appointed to maintain and develop the VITRANSS planning database.

(c) Improve supply of reliable information to decision-makers and planners

The MOT considers that only 30% of the information it needs is actually available. Existing statistics reflect the requirements of the past rather than needs of future decision-makers under market conditions. Many important items such as numbers of vehicles, traffic flows, tariffs, and accidents are either completely lacking or cover only part of the sector. Generally the data are very unreliable.

To supply decision-makers with adequate information it is recommended that in the short term:

- MOT coordinates a review of information needs by its agencies at all levels (central, provincial and district), based on the new functions assumed by its agencies,
- based on this review and an assessment of existing database systems, the MOT identifies the measures required to obtain the required information at least cost.

(d) Coordinate institutional change and promote decentralization

The MOT should help its agencies to strengthen policy implementation capacity in areas that (i) involve decisions that can only be taken at government level, (ii) involve significant overlap between modes, or (iii) require a common approach between modes. This involves:

- as part of the MOT's current review of responsibilities in the transport sector, renewing the ministry's commitment to delegating powers and responsibilities for infrastructure management to MOT's specialized departments with finalized draft decrees defining the organization, functions, tasks and duties of these departments (confirming the provisional decrees produced for VRA and VIWA),
- reviewing current procedures for implementing projects through PMUs to try to streamline administration and reduce delays - especially (i) to reduce the need for the PMUs to refer decisions up to ministerial level, and (ii) to reduce the need for MOT to refer decisions to other ministries,
- taking a strong lead in improving the management of provincial and district transport infrastructure, especially:
  - (i) to set technical and planning standards for infrastructure, and procedures for monitoring their application,
  - (ii) establishing procedures for ensuring that local plans are consistent with national plans,
  - (iii) establishing, in coordination with the Ministry of Finance, detailed guidance documents and procedures for financing local infrastructure,
  - (iv) strengthening capacity at provincial and district levels for managing infrastructure (not just national infrastructure and rural roads/waterways, but also the intermediate road network and similar provincial infrastructure)

- establishing a clearer legal basis for cooperation between ministries and PPCs, especially to deal with seemingly insurmountable difficulties that are sometimes experienced at local level[1],
- initiating liaison groups that involve transport users more fully in the MOT's work, especially for the MOT to gain support in its dealings with government over difficult issues like improving funding of transport infrastructure.

(e) Coordinate human resource development

To foster long-term human resource development by increasing training incentives and training opportunities, the priority in the short-term is to start formulating comprehensive human resource development policies and strategies for the whole of the transport sector. In particular:

- the MOT should renew its commitment to human resource development by a clear statement of policy objectives, including increasing (i) training incentives (through raising qualification standards both for MOT staff and for its external contractors), (ii) training opportunities (upgrading training programs to serve future needs),
- the Labor and Personnel Department of MOT should be strengthened in order to enable the policies, strategies and programs to be defined in detail,
- in particular the strategies should address the need for MOT to work with other ministries (especially the Ministry of Labor) to define higher qualification standards in technical training and re-orient technical training institutes under MOT towards meeting demands for training at higher standards in future,
- the strategy should also identify other needs such as those of senior decision-makers and specialists in transport economics, planning and policy analysis in the MOT, and work out ways to coordinate ongoing training programs provided under ODA projects to increase their cost-effectiveness (for example by advertising seminars more effectively and allowing staff outside the particular project to attend training sessions and obtain access to training materials through a library in the ministry),
- specific training needs identified by VITRANSS include:
  (i) upgrading training facilities for inland water transport operators,
  (ii) seafarers education upgrade project, to enable seafarers to meet international standards,
  (iii) upgrade of the civil aviation training center to allow in-service training, and training in using the new proposed ATM/CNS system,
- the training needs of managers of private and state transport businesses should also be assessed by seeking international assistance in helping training institutes identify demand for training programs in the transport industry and offering train-the-trainer courses in those areas (perhaps

[1] Such as getting detailed vehicle registration data from the Ministry of Police

transport business management topics, contracting methods for construction enterprises etc.).

(f) Strengthen the basis for financing infrastructure and operations

To implement proposed improvements in finance of infrastructure and operations, the subsector agencies need MOT to obtain government support in the short-term for

- off-budget funds for infrastructure maintenance (initially the proposed road fund),
- raising additional resources for transport investment (through the transport development fund), and
- reducing barriers to foreign participation in transport (for increasing potential finance for container terminals and for purchasing ships).

(g) Implement equitization and SOE reforms

MOT is responsible for taking the lead in the transport equitization program, which requires much to be done in the short-term (as described earlier). The ministry would also have to work with government to achieve the broader SOE reforms required in the short-term.

This requires the MOT to:

- appoint full time staff to define and implement a timetable for carrying out the equitization program (see Section 2.5 for further details),
- establish a monitoring mechanism to allow progress to be assessed and improvements made to the program in future,
- assess the possible need for greater government support to deal with staff redundancies caused by SOE reform,
- work with government to enable the SOEs remaining within the large corporations (VINALINES, VINASHIN and VAC) to have greater autonomy, without direct intervention by the corporations in allocation of resources or coordination of business plans, but with stricter monitoring of financial performance (for example to assess return on capital),
- seek government support for broader reforms such as changing the legal status of public interest SOEs to give them adequate financial autonomy while making them more accountable for use of state assets and for level of service offered,
- seek government support to establish ferries, pilotage services and other inherently commercial units as business SOEs rather than as public service SOEs.

4.4.3 Implementing Considerations

Based on the above discussions, a tentative short-term implementation plan has been produced. This is shown in Table 4.4.1 for actions to be taken at subsector level for each mode, based on the strategies recommended in Chapter 3, and in Table 4.4.2 for action at ministerial level, based on the overall strategy for development of sector management, described in Chapter 2.

The recommended plan involves many policy actions to be taken in conjunction with the master plan investments. Only when further work on implementation is done would it be possible to define realistic implementation schedules. Meanwhile the suggested dates and targets given in the summary tables should only be regarded as tentative suggestions on which to base further discussion.

Poor coordination of implementation would cause substantial losses in terms of delayed investment benefits, excessive investment costs and reduced benefits, so the proposed strengthening of MOT's policy and project implementation capacity within the Planning and Investment Department is particularly crucial to success in implementing the master plan.

Table 4.4.1
Policy and Institutional Reform Actions at Subsector Level

Sub-sector	Action	Main Responsibility
ROAD	*(1) Competitive Framework*	
	• Establish the road act within two years and the implementing regulations within three years, with (a) clear/enforceable technical standards, (b) no quantity controls or fares controls by provinces on non-urban bus services, (c) no additional minimum financial requirements other than those defined in the business licence, and (d) consistency with international requirements such as for vehicle size and weight regulations for container trucks	MOT
	(2) Institutional Changes	
	• Incorporate the short-term recommendations of the World Bank's Road Safety Strategy Study in the Traffic Safety Strengthening Program proposed to government by NTSC to reduce the number and severity of road accidents: (a) establishing an accident database, (b) including road safety audits in all road improvement designs, (c) developing measures to prevent encroachment of roads, (d) improving education/publicity on road safety, (e) improving driver training and enforcement. (f) This requires increasing the NTSC road safety budget from about US$ 1.5 million to US$ 3 million and including a greater input initially from international specialists to establish a firm cost-effective foundation for the safety program.	Government, MOT and other NTSC members
	• Implement fully the recommendations of the ADB's Institutional Strengthening TA to MOT/VRA, deepen the reforms of VRA and extend them to provincial/district levels to enable the whole of the primary and secondary networks (and at least 20% of tertiary roads) to be under proper maintenance within five years	MOT, VRA, PPC, PTAs
	• Target training at road management aspects such as pavement and maintenance management and contracting procedures	MOT, VRA, PPC, PTAs
	(3) Funding	
	• Depending on the results of the forthcoming World Bank workshop, establish a road fund within two years for regular maintenance activities, using off-budget funds raised from road users, with a management board responsible to the MOT or the Ministry of Finance. Allocate to the fund: (a) VND 250 per litre of diesel and gasoline consumed in Vietnam, initially, to establish the fund without increasing the budget allocation to road maintenance, (b) then raise the allocation step-by-step by introducing an axle weight fee and by increasing the gasoline levy by about 50% within five years This could raise road maintenance finance from about US$ 80 million to US$ 150 million	MOT with Ministry of Finance
	(4) Operations/Management	
	• Equitize all remaining bus and truck SOEs under MOT and provinces within three years	MOT, PPC
RAILWAY	*(1) Competitive Framework*	
	• Establish the railway act within two years and implementing regulations within three years	MOT/VR
	• Establish railway inspection unit within MOT within one year to oversee safety aspects	MOT
	(2) Institutional Changes	
	• Establish VR as a corporation, within one year, with six separate HQ business departments for passenger, freight, operations, rolling stock maintenance, infrastructure and administration (with equivalent units within each region or union)	MOT
	• The HQ and the three regions jointly prepare realistic business plans within three years for passenger, freight and other support departments	VR
	• Develop management systems (MIS, costing tools, business/financial planning, marketing) within two years, and implement on a pilot basis within three years before applying throughout the railway within four years.	VR

	• Introduce low cost marketing measures within two years (ticketing, customer information and customer relations etc.)	VR
	(3) Funding	
	• Based on the business plans, establish a performance agreement within four years between MOT Planning and Investment Department and VR to define the medium-term contractual basis for VR's payment for infrastructure (fixed annual fee plus proportion of revenue earned) and government subsidy (clear operational/financial targets and obligations on each side)	MOT/VR
	• Remove remaining controls on railway fares and tariffs, including the two tier fare structure for foreigners and Vietnamese, within two years	GPC
	(4) Operations/Management	
	• Rehabilitate and renew existing equipment and infrastructure to sustain carrying capacity in the next three years at minimum investment	VR
	• Define the technical standards for future development of infrastructure and new purchases of equipment with modern technology within two years	VR
	• Define new operating procedures and rules for adoption of new technology within three years.	VR
	• Train management and staff in new systems, manuals and procedures resulting from the organizational reforms and proposed use of new technology within four years.	VR
INLAND WATER	*(1) Competitive Framework*	
	• Establish the inland water transport act within two years and implementing regulations within three years, with (a) clear/enforceable technical standards (b) no restrictions on area or route of operation (only restrictions based on classification of waterway) (c) no additional minimum financial requirements other than those defined in the business licence	MOT/VIWA
	(2) Institutional Changes	
	• Establish improved VIWA management systems according to Canada-Vietnam TA project, including new organization, basic management systems, vessel inspections, procurement/contracting framework, environmental monitoring plan, and waterways maintenance plan within three years. On-the-job training provided throughout.	VIWA
	• Implement Canada-Vietnam TA pilot project with new policies, plans and systems in 2002	VIWA
	• Replicate pilot project nationally in 2003	VIWA
	(3) Funding	
	• Improve fee collection system to improve cost-effectiveness and assess potential for even greater cost-effectiveness by replacing waterway-use fees with vessel-based fees, within one year.	VIWA
	• Depending on the results of the proposal to establish a road fund, implement within three years a water transport fund on a similar basis (or extend the scope of the road fund). Establish the water fund with a fuel levy of VND 27 per litre of diesel consumed in Vietnam. This could provide US$ 9 million in 2005 (50% higher than current waterway maintenance expenditure)	MOT/VIWA
	(4) Operations/Management	
	• Equitize all inland water transport SOEs within five years	MOT/Provinces
	• Transfer port ownership to provinces and commercialize port management by issuing management contracts within five years	Government/ MOT/Provinces
	• Lease out port facilities to private investors to provide container handling facilities in at least one pilot project within five years	Provinces
MARITIME	*(1) Competitive Framework*	
	• Formulate regulations, within one year, for ship inspections and other aspects, as required to meet international agreements	VINAMARINE
	(2) Institutional Changes	
	• Clarify responsibilities between VINAMARINE and VIWA for infrastructure management by assigning responsibility to VINAMARINE for all coastal areas (except in designated cases) and designated rivers from the coast (to Haiphong, Saigon and Can Tho Ports) within one year	MOT

	• Divest remaining ports and other commercial functions from VINAMARINE within one year	MOT
	• Target training at improving port state control inspectors, to implement minimum international technical standards of ships, and infrastructure management	VINAMARINE
	• Strengthen VINAMARINE capacity to manage maritime sector (improving dialogue with shipping industry and shippers, planning and infrastructure maintenance)	VINAMARINE
	(3) Funding	
	• Secure private investment in container handling facilities in general purpose ports, in accordance with their planned future role (through leasing, joint venture, or BOT) in at least one port within five years	VINAMARINE
	• Unify coastal shipping and ocean shipping charges for use of maritime infrastructure within one year	VINAMARINE
	• Remove GPC control over port charges and allow ports to base charges on their costs within one year	Ministry of Finance
	(4) Operations/Management	
	• Equitize remaining maritime service SOEs within one year	MOT
	• VINALINES should immediately adopt a passive ownership role towards remaining shipping and port SOEs to foster competition, (a) avoiding direct financial assistance, and (b) replacing the present uniform levy charged to members with a lower levy but charging additional fees for management services offered to its members	MOT
	• Commercialization of ports by establishing each port as an independent corporation with management board having local shippers and other representatives - by introducing reform at one port on a pilot basis within two years and applying the reforms to all other main ports within five years	MOT
	• Contract out handling and other services in order to foster competition within two more ports within two years, and within all remaining ports in five years	VINALINES
	• Target training at port management (management systems, modern handling methods) and skilled staff (use of modern equipment)	VINALINES
AVIATION	*(1) Competitive Framework*	
	• Incorporate international technical standards and agreements into Vietnamese law within two years by implementing the regulatory changes recommended by the French/Vietnamese TA.	CAAV
	• Phase out current fare controls to allow more market-based fares and to remove the two tier fare structure for foreigners and Vietnamese, within two years. Keep option to impose maximum fares controls under monopoly conditions.	GPC
	(2) Institutional Changes	
	• Strengthen management capacity of CAAV within four years through adopting modern traffic forecasting, facility life cycle management, and planning techniques that involve a broad range of stakeholders in airports. Requires training support.	CAAV
	• Strengthen sector management within five years by introducing/revising legal basis for airport authorities and VATM to focus on core regulatory oversight responsibilities, not commercial activities such as airport ground services and training.	CAAV
	• Provide training on introducing new CNS/ATM system within five years	VATM
	(3) Funding	
	• Base airport charges on the infrastructure provision costs at each port, base air traffic control charges on ATM service costs, and remove discounts to Vietnamese airlines within two years in accordance with international agreements	CAAV
	(4) Operations/Management	
	• To foster real competition in the domestic market, VAC's ownership of Pacific Airlines should be reduced to that of passive investor, concerned only with obtaining minimum return on investment and not with business strategy.	MOT
	• Aviation support units such as supply companies, air service companies, catering and goods handling should be divested from VAC, starting with three pilot cases within three years, followed by the rest within five years.	VAC
	• New airport corporations should be established to manage the commercial airport and infrastructure management functions in each of the three areas covered at present by the airport authorities. Local interests should be represented on the management boards. Initially, in the next five years, one such corp. should be created as a pilot case.	Government/ CAAV

	• Provide training in airport management, including passenger service, business development strategies, costing, financial planning, and contracting, to enable increased commercialization of airport management and ultimate creation of airport corporations.	CAAV
MULTI-MODAL	*(1) Regulatory Framework*	
	• Establish the legal framework for freight carriage (limits of liability, legal basis for multimodal transport operators and basis for freight forwarders to act as principals rather than agents) within three years, based on international agreements	MOT
	• Seek support from government to reform customs regulations, to allow modern clearance systems and use of efficient logistics systems within three years.	MOT
	• Accede to main international agreements on international trade and transport, and incorporate these into Vietnamese law within three years	MOT
	(2) Institutional Changes	
	• Seek support for training in multimodal operations from international operators within three years	MOT
	(3) Funding	
	• Encourage private financing by planning development of container ports and inland depots within two years and providing land and good access links within five years	MOT
	• Seek to remove government restrictions in foreign investment in transport within three years	MOT
	(4) Operations/Management	
	• Seek international support for assistance in establishing a shippers council in Vietnam to represent users within three years	MOT
RURAL	*(1) Regulatory Framework*	
	• Phase out transport tariff controls in mountainous areas to establish a level playing field and allow sustainable financing of rural transport services (if necessary with subsidies awarded by competitive tendering to least-cost operators)	GPC
	(2) Institutional Changes	
	• Establish within one year and train, over the next three years, a rural transport unit in MOT	MOT
	• Strengthen capacity for managing rural transport in provincial and district PTAs (planning and evaluation of infrastructure development, maintenance management)	MOT/PTAs/VRA
	(3) Funding	
	• Establish a firm basis for financing rural road/water maintenance and development, based on the recommendations of the Rural Transport Strategy Study	PTAs/Ministry of Finance/MOT
CROSS-BORDER	*(1) Regulatory Framework*	
	• Seek bilateral agreements with neighboring countries that allow efficient, through movement of transport vehicles/vessels between countries within five years	MOT
	• Ensure that Vietnamese transport legislation is consistent with international agreements and main protocols within five years	MOT
	(2) Institutional Changes	
	• Seek support from government to streamline customs and other procedures within three years	MOT
	(3) Funding	
	• Establish a monitoring system for cross-border flows, by transport type and traffic type, to identify potential bottlenecks so that investments can be targeted where they are most needed, within one year	MOT

Table 4.4.2
Policy and Institutional Reform Actions for Sector Management

Actions	Main Responsibility
(1) Establish a Coordinated Regulatory Framework	
• Work with the Specialized Departments for each mode to develop new MOT guidelines to subsector legal departments, within one year, on basis of drafting future regulation of each mode in order to unify legislation within the sector and make implementation easier. Covering: (a) aspects of the overall legal framework that need strengthening or better coordination, such as the safety, environmental and multimodal aspects highlighted by VITRANSS, (b) level of detail in modal acts and implementing regulations, (c) whether to treat infrastructure and transport activities under the same modal act or as separate acts, (d) scope of licensing provisions, following scrapping of past business licences, to set minimum safety standards while minimizing barriers to competition (e) proposed future responsibilities and authority of central government agencies and PPCs/PTAs over licensing or pricing (for example to guide urban bus services), (f) the economic basis for minimum technical standards (for example based on vehicle condition, not age) (g) how to take account of possible umbrella law on transport and future international agreements that Vietnam is intending to sign up to.	MOT/ VRA/ VR/ VIWA/ VINAMARINE
• Phase out remaining transport price controls within two years to allow prices to reflect the prices of each mode and each operator (see Table 4.4.1 for details). Possibly establish the GPC as a competition regulatory body within five years	GPC/Ministry of Finance
(2-1) Institutional Changes - Strengthening Planning and Policy-Making Capacity of MOT	
• Develop an institutional reform plan aimed at strengthening MOT in its core areas (covering organizational changes, functional definitions, management tools/procedures, staffing and training)	MOT
• Concentrate planning and policy-making functions of MOT in a single department (Planning and Investment) by transferring to it the non-legal functions of the Transport and Legal Department within one year	MOT
• Improve strategic planning through adopting modern planning and evaluation methods and clear guidelines to delegate planning tasks. Within three years.	MOT
• Develop the VITRANSS model as a policy/planning tool to continue analysis of policy options (infrastructure maintenance versus new construction, development options within each corridor, optimum location and type of ports etc.). Define work program within three years and carry out program within five years.	MOT/TDSI
• Develop systems for financial analysis (to assess cost recovery policies), and for operational analysis (to assess infrastructure capacity utilization, transport efficiency and competition) within five years	MOT
• Develop a project and policy implementation monitoring system, within one year, based on the VITRANSS recommendations (master plan investments and policy recommendations - see Table 4.4.1) to assess extent of implementation and enforcement, and need for removal of bottlenecks	MOT

(2-2) Institutional Changes - Improve the Supply of Reliable Information to Decision-Makers	
• Identify information needs of MOT and its agencies for making policy and its implementation, within one year.	MOT
• Identify the means to provide reliable information to decision-makers. Implement within three years.	MOT
(2-3) Institutional Changes - Coordinate Institutional Changes Throughout the Sector	
• As part of its current review of responsibilities in the transport sector, renew the MOT's commitment to delegating powers and responsibilities for infrastructure management to MOT's specialized departments.	MOT
• Complete the current government review of organization responsibilities by the production of legal documents defining the organization, function, tasks and duties of all provincial and MOT agencies involved in transport sector management, to clarify responsibilities, to avoid overlap and establish clear lines of authority and responsibility between them. In particular: (a) Finalize decrees defining the organization, functions, tasks and duties of these departments. (b) Review current procedures for implementing projects through PMUs to streamline administration and reduce delays, by (i) reducing the need for the PMUs to refer decisions up to ministerial level, and (ii) reducing the need for MOT to refer decisions to other ministries. (c) Rationalize other MOT units to reduce reporting lines, to avoid duplicated functions, and to establish institutes and support agencies as either part of the ministry, non-profit-making agencies or as commercially independent units (d) Seek support from government, within one year, for the minister of transport to appoint the PTA director, or at least to veto appointments on technical grounds Prepare draft documents within one year and implement within two years	MOT
• Revise Decree No. 22-CP defining MOT's organization to implement the ministerial changes within two years	MOT
• Take the lead in improving the management of provincial and district transport infrastructure, by: (a) setting technical and planning standards for infrastructure, and procedures for monitoring their application, (b) establishing procedures for ensuring that local plans are consistent with national plans, (c) establishing, in coordination with the Ministry of Finance, detailed guidance documents and procedures for financing local infrastructure, (d) strengthening capacity at provincial and district level for managing infrastructure (not just national and rural infrastructure, but also the intermediate road network and similar provincial infrastructure)	MOT
• Establish joint circulars between MOT and other ministries such as the Ministry of Police, within one year, to provide a basis for exchange of information and other important areas of cooperation	MOT/other ministries
• Establish liaison groups chaired by the MOT with representatives from transport users to disseminate policies and gain support for policy measures such as raising user charges. Establish the first group, for road financing, within one year.	MOT
(2-4) Institutional Changes - Coordinate Human Resource Development	
• MOT renews its commitment to human resource development by a clear policy statement, with specific objectives, including increasing (a) training incentives (higher minimum qualification standards for MOT staff and for external contractors) and (b) training opportunities (reorient training programs to serve real needs). Declare policy within one year and define human resource development programs within three years.	MOT/Subsector Agencies

• Strengthen the Labor and Personnel Department of MOT to develop, within three years, human resource development policies and strategies for the transport sector, including (a) reviewing with the Minister of Labor, qualification levels for skilled technicians, and policies for improving technical training, (b) training needs for senior decision-makers and specialists/experts, (c) training needs for managers of transport enterprises, (d) implementing the specific training needs identified by VITRANSS in inland water, maritime and aviation transport.	MOT
• Coordinate ODA-funded training courses to broaden impact and improve cost-effectiveness (within one year). Identify priority training subjects within two years and develop train-the-trainer courses and upgrade transport training institutes in priority subjects.	MOT/Provinces
(3) Strengthen the Basis for Financing Infrastructure	
• Seek support from government for establishing, within two years, off-budget funds for financing infrastructure maintenance for roads and inland water transport (see Table 4.4.1 for details)	MOT/Ministry of Finance
• Seek support from Ministry of Finance and transport users, within three years, for mobilization of development resources, with a greater contribution from users (higher fuel levy and/or vehicle/vessel import and ownership taxes)	MOT with Ministry of Finance
• Seek support from government and transport users for reducing, within two years, restrictions on foreign investment in transport	MOT/MPI
• Develop plans for possible private investments in ports and other infrastructure within two years, and seek government and user support to remove investment bottlenecks	MOT/MPI
(4) Implement the Equitization and SOE Reforms in the Transport Sector	
• Appoint full time staff in MOT to handle equitization program within one year and give priority to equitizing small-scale transport service and support SOEs under MOT and provinces (see Table 4.4.1). Define priority short-term program within two years and monitor implementation in order to adapt the procedures to improve effectiveness	MOT/Provinces
• Assess, within one year, the possible need for additional compensation or assistance for staff made redundant through equitization or commercialization, and seek government support to reduce bottlenecks to reform of transport SOEs such as ports and railway.	MOT
• For SOEs not for equitizing in the short term, such as ports, shipping and railway, establish these as independent corporations to foster competition (as described in Table 4.4.1). Negotiate performance contracts if necessary to provide a basis for financial support. Establish the first three corporations within one year as pilot cases, before implementing nation-wide.	MOT/Government
• To foster competition amongst SOEs remaining within VINALINES, VINASHIN and VAC, limit the power of these corporations, within one year, to intervene directly in SOE business affairs, but improve monitoring of financial performance.	MOT/Government
• Promote an efficient and internationally-competitive construction industry by including construction units in the short-term equitization program and setting higher qualification standards step-by-step each year (to give incentives for training and modernization). Consider establishing an equipment leasing organization to give broader access for contractors to modern specialist equipment within three years.	MOT
• Establishing ferries and similar enterprises as business SOEs (not as public service SOEs) to allow introduction of greater efficiency incentives and competition	MOT
• Seek government support within two years for establishing infrastructure maintenance units as more financially independent SOEs to allow introduction of greater efficiency incentives and competition	MOT

APPENDICES

APPENDIX A
LIST OF TRANSPORT SOEs under Central Government

No.	Names of Companies
A	***Enterprise Grouping with Management Boards operating under Decree No. 91.TTg/1994 and reporting to the PM office***
I	**THE VIETNAM AIRLINES CORPORATION (VAC) - (26 member units)**
	Member Units with independent Accounting
1	The Aviation Petrol Supply Company (VINAPCO)
2	The Aviation Import-Export Company (AIRIMEX)
3	The Aviation Service Supply Company
4	The Aviation Consultancy, Survey and Design Company
5	The Aviation Project Construction Company
6	The Aviation High-quality Plastics Company
7	The Aviation Motorized Transport Company
8	The Aviation Printing Company
9	The Noi Bai Air Service Company (NASCO)
10	The Tan Son Nhat Air Service Company (SASCO)
11	The Da Nang Air Service Company (MASCO)
	Member Units with dependent Accounting
12	The Vietnam Naitonal Air Service (VIETNAM AIRLINES)
13	The Air Flight Service Company (VASCO)
14	The Noi Bai Ground Trading Enterprise
15	The Da Nang Ground Trading Enterprise
16	The Tan Son Nhat Ground Trading Enterprise
17	The A75 Aircraft Repair Enterprise
18	The A76 Aircraft Repair Enterprise
	Non-Business Units
19	The Aviation Institute
20	The Labor Supply Center
	Joint-Venture Units with Capital Contributed by The Corporation
21	The Tan Son Nhat In-flight Meals Joint Venture Company (VAC)
22	The Tan Son Nhat Goods Service Company Ltd. (TCS)
23	The Noi Bai In-flight Meals Joint Venture Company (NSC)
24	The Vietnam Airlines Hotels Joint Venture Company Ltd. (VNH)
25	The Aviation Stocks Company (PACIFIC AIRLINES)
26	The Global Distribution Company (AVACUS-VIETNAM)
II	**VIETNAM NATIONAL SHIPPING LINES (VINALINES) (35 member units)**
	Member units with Independent Accounting
27	The Vietnam Ocean Shipping Company (VOSCO)
28	The Vietnam Maritime Transport Company and Chartering Company (VITRANSCHART)
29	The Maritime Transport Company III (VINASHIP)
30	The Vietnam Oil and Gas Transport Company (FALCON)
31	The Maritime Petroleum Transport and Supply Company (MAPETRANSCO)
32	The Vietnam Sea and River Transport Company (VISERITRANS)
33	The Hai Phong Port
34	The Sai Gon Port
35	The Quang Ninh Port
36	The Da Nang Port
37	The Can Tho Port
38	The Vietnam Ocean Shipping Agency (VOSA)
39	The Northern Container Shipping Company (VICONSHIP HAIPHONG)
40	The Southern Container Shipping Company (VICONSHIP SAIGON)
41	The Vietnam Maritime Development Company (VIMADECO)
42	The Maritime Information and Technology Company
43	The Ha Noi Center for Maritime Trade I
44	The Nha Trang Center for Maritime Trade II
45	The Maritime Chandlery and Service Company I

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No.	Names of Companies
46	The Maritime Trade and Service Company
47	The Southern Chandlery and Service Company
48	The Southern Company for Import-Export and Supply of Technical Materials
49	The Company for Import and Export of Marine Materials (MARINE SUPPLY)
50	The Hai Phong Company for International Labor Cooperation (INLACO HAIPHONG)
51	The Southen Company for International Labor Cooperation (INLACO SAIGON)
52	The Maritime Financial Company
53	The Maritime Insurance Company
	The Enterprises in Joint-Venture With Foreign Countries
54	GEMARTRANS (Asia) Ltd.
55	VINABRIDGE Ltd.
56	VIJACO HPG
57	The Hanoi Joint-Venture Maritime Commercial Center (HMCC)
58	The Vinamar Joint-Venture Maritime Transport Company (VINAMAR)
59	CHANCEFIT SHIP MANAGEMENT PTE Ltd.
60	The Joint Venture Company for Far Sea Transport (SALFES)
61	WOSA HongKong Ltd.
62	PHILI-ORIENT LINES VIETNAM Ltd.
	Domestic Enterprises with Capital Contributed by the Corporation
63	The Maritime Stock Trade Bank (MSB)
64	GEMADEPT
65	The Vung Tau Engineering and Service Company for Ocean Ships (VUNG TAU MARINE)
III	**VIETNAM SHIPBUILDING INDUSTRY CORPORATION (VINASHIN)**
66	The Bach Dang Shipyard
67	The Song Cam Shipyard
68	The Ben Kien Shipyard
69	The Tam Bac Shipyard
70	The Ha Long Shipyard
71	Song Lo Shipyard
72	The Pha Rung Sea-going Vessel Repairing Factory
73	The Nam Trieu Sea-going Vessel Repairing Factory
74	The Sea-going Vessel and Oil Rig Repairing Factory
75	The Saigon Shipyard
76	The Song Han Shipyard
77	The Shipbuilding and Water Transport Means Repairing Factory No. 76
78	The Nam Ha Shipyard
79	The Electronic Communications and Transport Equipment Company
80	The Ship Material and Equipment Import-Export Company
81	The Ship Dismantling and Discarded Materials Exporting Company
82	The Construction and New Technology Application Company
83	The Bien Dong Transport Company
84	The Industrial Gas and Ship Dismantling Company
85	The Investment Consultancy and Shipbuilding Development Company
86	The Communications and Transport Engineering Design Research Company
87	The Financial Company (to be founded for the first time).
	Joint-Venture Enterprises with Capital Contributed by The Corporation
88	The Vietnam-Republic of Korea Ship Dismantling Joint Venture (VISKO)
89	The Baikan Sea Transport Joint Venture (VASCO).

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LIST OF TRANSPORT SOEs under Central Government

No.	Names of Companies
B	***Corporations with Management Boards operating under Decree No. 90.TTg dated 7/3/1994 by the PM***
IV	**THE THANG LONG CONSTRUCTION CORPORATION (18 subsidiary companies)**
	Head office at Lang Trung, Hanoi
	Independent accounting Companies:
90	The Thang Long Bridge Company No.1
91	The Thang Long Bridge Company No. 3
92	The Thang Long Bridge Company No. 5
93	The Thang Long Bridge Company No. 7
94	The Thang Long Bridge Company No. 11
95	The Thang Long Bridge Company No. 13
96	The Thang Long Steel Trusses and Structure Company
97	The Long Construction and Concrete Factory
98	The Construction Experiment and Electricity Assembly Company
99	The Thang Long Mechanical Construction Company
100	The Thang Long Architecture Construction Company
101	The Thang Long Engineering Construction Company
102	The Thang Long Diving and Underwater Works Construction Company
103	The Thang Long Engineering Consultancy Company
104	The River Ships Major Repairs Shipyard No. 2
	Independent Companies:
105	The Thang Long Infastructure Technology Centre
	Others:
106	The Thang Long Engineering Vocational School
107	The Thang Long Transport Public Health Centre
V	**(19 subsidiary companies)**
	Head office at C2, Thanh Cong, Giang Vo str. Hanoi
	Independent accounting Companies
108	The Bridge Construction Company No. 12, Gia Lam - Hanoi
109	The Bridge Construction Company No. 14, Gia Lam - Hanoi
110	The Civil Engineering Construction Company No. 116, Thanh Xuan - Hanoi
111	The Civil Engineering Construction Company No. 134, 278 Ton Duc Thang str. - Hanoi
112	The Road Construction Company No. 122, Gia Lam - Hanoi
113	The Road Construction Company No. 136, Thanh Cong - Hanoi
114	The Civil Engineering Construction Company No. 120, Gia Lam - Hanoi
115	The Road Construction Company No. 126, Dong Anh - Hanoi
116	The Civil Engineering Construction Company No. 118, Tu Liem - Hanoi
117	The Civil Engineering Construction Company No. 124, Thanh Tri - Hanoi
118	The Transport Engineering Consultancy Company No.1, Thanh Cong - Hanoi
119	The Transport Materials & Equipment Company No.1, Gia Lam - Hanoi
120	The Transport Material Experiment Company No.1, Cat Linh - Hanoi
121	The Transport Mechanical Construction Company No.1, Gia Lam - Hanoi
122	The Civil Engineering Construction Company No. 128, Ha Dong - Ha Tay
123	The Yen Cu Quarry, Thai Nguyen province
124	The Road and Bridge Construction Company No. 10 - Hai Phong
125	The Marine Works Construction Company, Hai Phong
	Others
126	The Transport Engineering Construction Vocational School, Soc Son - Hanoi

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No.	Names of Companies
VI	**THE CIVIL TRANSPORT CONSTRUCTION CORPORATION No.4 (CIENCO4)**
	(16 Subsidiary companies)
	Head office at 29 Quang Trung road, Vinh city, Nghe An
	Independent accounting Companies
127	Transport Works Company No. 479, Nguyen Du - Vinh - Nghe An
128	Transport Works Company No. 423, Dong Vinh - Vinh - Nghe An
129	Transport Works Company No. 469, Tran Hung Dao road, Vinh - Nghe An
130	Transport Works Company No. 492, Tran Hung Dao road, Vinh - Nghe An
131	Road Company No. 471, Doi Cung - Vinh - Nghe An
132	Transport Works Company No. B19, Trung Do -Vinh-Nghe An
133	Transport Work Mechanical Company, Le Loi - Vinh - Nghe An
134	Transport Works Company No. 475, Phan Dinh Phung road, Ha Tinh town
135	Transport Works Company No. 473, Xuan An commune, Nghi Xuan District, Ha Tinh
136	Transport Works Company No. 480, 30 Phan Chu Trinh str.- Thanh Hoa
137	Transport Works Company No. 484, Nam Ly - Dong Hoi town - Quang Binh
138	Transport Works Design Engineering Consulting Company No.497, 72 Nguyen Si Sach, Vinh
139	Transport Works Company No. 482, Tran Hung Dao road, Vinh - Nghe An
140	Transport Works Company No. 208, 26B Van Ho - Hai Ba Trung District, Hanoi
141	Transport Works Company No 246, H2 Thanh Cong, Ba Dinh District, Hanoi
142	Transport Works Company No. 228, Phu Lo commune - Soc Son - Hanoi
VII	**THE CIVIL TRANSPORT CONSTRUCTION CORPORATION No.5 (CIENCO5)**
	(10 subsidiary companies)
	Head office at 45 Nguyen Du, Da nang
	Independent accounting Companies
143	Transport Works Company No. 503, 471B-Tran Cao Van - Da nang
144	Transport Works Company No. 512, 45 -Dien Bien Phu - Da nang
145	Transport Works Company No. 525, Hoa Phat - Hoa Vang - Da nang
146	Transport Works Company No. 504, Phuoc Loc - Tuy Phuoc - Binh Dinh
147	Transport Works Company No. 505, 2 Han Thuyen - Nha Trang - Khanh Hoa
148	Transport Works Company No. 506, 105 Le Loi - Thong Nhat, Pleiku town, Gia Lai
149	Transport Works Company No. 507, km8, QL26, Tan Hoa, Buon Me Thuot, Dac lac
150	Transport Works Company No. 508, Phu Tai - Quy Nhon - Binh Dinh
151	Transport Works Company No. 510, 2-Truong Son - Nha Trang city - Khanh Hoa
152	Transport Im-Export and Construction Company No. 502, 2 Phan Boi Chau - Tam Ky - Quang nam
VIII	**THE CIVIL TRANSPORT CONSTRUCTION CORPORATION No.6 (CIENCO6)**
	(19 subsidiary companies)
	Head office at 55A Pasteur, District 1, Ho Chi Minh city
	Independent accounting SOEs
153	Civil Construction Company No. 60, 86-Nguyen Thong - Q3-HCMC
154	Civil Construction Company No. 61, 309/1A Nguyen Van Troi - Q. Tan Binh, HCMC
155	Civil Construction Company No. 63, 20 Tran Hung Dao - Q.5 - HCMC
156	Civil Construction Company No. 67, 255 Hai Ba Trung - Q3 - HCMC
157	Civil Construction Company No. 68, 6/43 Dang Van Bi, Q. Thu Duc, HCMC
158	Civil Construction Company No. 672, 99-101 Tran Hung Dao - Can Tho
159	Civil Construction Company No. 674, 176-QL1A - Tan An town - Long An
160	Civil Construction Company No. 675, 86 - Cach Mang Thang Tam - Can Tho city
161	Civil Construction Company No. 677, Km 1709 - QL1 - Phan Thiet town - Binh Thuan
162	Civil Construction Company No. 610, Tan Phu commune, Q. Thu Duc, HCMC
163	Concrete Company No. 620, Chau Thoi - Thuan An - Binh Duong
164	Crush Stones Exploitation Company No. 621, Dong Hoa commune - Thuan An - Binh Duong
165	Mechanical & Construction Company No. 623, 127 - Dinh Tien Hoang - Q. Binh Thanh -HCMC
166	Construction Materials & Equipment Supply Company No. 624, 72 - Truong Dinh - Q3 - HCMC
167	Construction and Consultant Company No. 625, 24 - Tran Khac Chan - Q.1 - HCMC

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No.		Names of Companies
168		Transport Facilities Company No. 676, 127 - Dinh Tien Hoang - Q.Binh Thanh - HCMC
169		Transport Company for Development Investment, 89 - Cach Mang Thang Tam - Q.1 - HCMC
		Economically dependent SOEs
170		Mechanical Facilities Enterprise No.6, 412/74A - No Trang Long - Q. Binh Thanh - HCMC
171		Center for Materials & Equipment Import - Export No. 6
	IX	**THE CIVIL ENGINEERING CONSTRUCTION CORPORATION NO.8 (CIENCO8)**
		(18 subsidiary companies)
		Head office at 187B, Tay Son str, Hanoi
		Independent accounting companies
172		The Civil Engineering Construction Company No. 874, Hanoi
173		The Civil Engineering Construction Company No.810, Hanoi
174		The Civil Engineering Construction Company No.873, Hanoi
175		The Civil Engineering Construction Company No.829, Hanoi
176		The Civil Engineering Construction Company No.872, Hanoi
177		The Civil Engineering Construction Company No.875, Hanoi
178		The Civil Engineering Construction Company No.892, Hanoi
179		The Civil Engineering Construction Company No.889, Hanoi
180		The Civil Engineering Construction Company No.842, Hanoi
181		The Vietnam-Laos Civil Engineering Construction Company, Hanoi
182		The Transport Materials and Construction Company, Hanoi
183		The Western Civil Engineering Construction Company, Hanoi
184		The Transport Engineering Consultancy Company, Hanoi
185		The Civil Engineering Construction Company No. 820, Nam Dinh
186		The Civil Engineering Construction Company No. 838, Thanh Hoa
187		The Bridge Construction Company No. 75, Nghe An
		Others
188		The Technical Training Centre No. 8, Hanoi
189		The Transport Health Care Centre No.8, Sam Son - Thanh Hoa
	X	**THE WATERWAYS CONSTRUCTION CORPORATION (13 subsidiary companies)**
		Head office at 40 Phung Hung str., Hanoi
		Independent accounting Companies
190		The Mechanical Construction Company, 127 Giai Phong Road, Hanoi
191		The Waterways Works Construction Company, Thai Ha str, Hanoi
192		The Waterways Works Construction Consultancy Company, Nam Thang Long road, Hanoi
193		The Waterways Consultancy Company, Phung Hung str., Hanoi
194		The Waterways Dredging Company No.2 - 232 Ngo Tat To str., Binh Thanh District, Ho Chi Minh city
195		The Marine Dredging Company No. 2 - 232 Ngo Tat To str., Binh Thanh District, Ho Chi Minh city
196		The Civil Engineering Construction Company No. 86 - 246 Xo Viet Nghe Tinh, Binh Thanh District, HCMC
197		The Southern Waterways Civil Eng. Construction-R4 D2 Van Thanh Bac road, Binh Thanh Dis.,HCMC
198		The Marine Dredging Company No. 1 - 33 Da Nang, Ngo Quyen District, Hai Phong
199		The Waterways Dredging Company No.1 - 8 Nguyen Tri Phuong str, Hai Phong
200		The Waterways Civil Engineering Construction Company No. 2 - 83 Bach Dang, Hai Phong
201		The Civil Engineering Construction Company No. 5 - 101 Thanh Hai, Da Nang
		Dependent accounting companies
202		The Waterways Transport Company - Hoang Van Thu road, Hai Phong
	XI	**NORTHERN INLAND WATERWAYS TRANSPORT CORPORATION (12 subsidiary companies)**
		Head office at 49 Nguyen Van Cu str, Hanoi
		Independent accounting SOEs
203		Inland Waterways Transport Company No. 1 - Hanoi
204		Hanoi Inland Waterways Port - Hanoi

APPENDIX A
LIST OF TRANSPORT SOEs under Central Government

No.	Names of Companies
205	Technical Factory 75 - Hanoi
206	Inland Waterways Material & Construction Company - Hanoi
207	Inland Waterways Transport Company No. 2 - Ninh Binh
208	Inland Waterways Transport Company No. 3 - Hai Phong
209	Inland Waterways Transport Company No. 4 - Hai Phong
210	Viet Tri Inland Waterways Port - Viet Tri
211	Hoa Binh Inland Waterways Port - Hoa Binh
212	Ha Bac Inland Waterways Port - Ha Bac
213	Inland Waterways Major Repairs Factory No.1 - Quang Ninh
	Economically dependent SOEs
214	Branch of the Northern Inland Waterways Corporation in Quang Ninh
XII	**THE SOUTHERN INLAND WATERWAYS CORPORATION (11 subsidiary companies)**
	Head office at 52A Chuong Duong, Ho Chi Minh city
	Independent accounting SOEs
214	Facilities Erection Company
215	Inland Waterways Mechanical Company No. 2
216	Tan Thuan Inland Waterways Port
217	Thu Duc Inland Waterways Port
218	Can Tho Inland Waterways Facilities Factory
	Economically Dependent SOEs
219	Southern Waterways Transport Company
220	Freights & Passengers Transport Enterprise
221	Mechanical Enterprise 78
222	Waterways Engineering & Design Company
223	Waterways Enterprise for Im-Export & Materials Supply
224	Waterways facilities Building & Repairs Factory
XIII	**THE TRANSPORT MECHANICS INDUSTRY CORPORATION (15 subsidiary companies)**
	Head office at 120 Hang Trong str., Hanoi
	Independent accounting SOEs
225	Automobile Mechanical Company May 1st in Dong Anh, Hanoi
226	Automobile Mechanical Company Februay 3rd in Hanoi
227	Automobile Mechanical Company April 30th in Gia Lam - Hanoi
228	Automobile Mechanical Company Ngo Gia Tu in Hanoi
229	Automobile Mechanical Company No. 120 - Hanoi
230	Automobile Mechanical Company August 19th in Soc Son - Hanoi
231	Mechanical Facilities Company - Hanoi
232	Dai Mo Plastic Rubber Company
233	Construction Company - Hanoi
234	Transport Commercial & Investment Development Company - Hanoi
235	Transport Materials Company - Hanoi
236	Automobile Repairs Factory No.1 - Hanoi
237	Hoa Binh Motors Factory - Hanoi
	Economically dependent SOEs
238	Marketing & Training Center - Hanoi
239	Branch of the Transport Mechanics Industry Corporation in Ho Chi Minh city
XIV	**THE TRANSPORT ENGINEERING DESIGN INCORPORATION (TEDI) (8 subsidiary comapies)**
	Head office at 278 Ton Duc Thang str., Hanoi
	Independent accounting SOEs
240	Road and Bridge Engineering and Design Company - 278, Ton Duc Thang str., Hanoi

APPENDIX A
LIST OF TRANSPORT SOEs under Central Government

No.	Names of Companies
241	Road Engineering and Design Company - 278, Tong Duc Thang str., Hanoi
242	Bridge and Tunnel Engineering and Design Company - 278, Ton Duc Thang str., Hanoi
243	Inland Waterways Port Engineering Company - 278, Ton Duc Thang str., Hanoi
244	Inland Waterways Design and Construction Company - Khuong Dinh, Hanoi
245	Geological Survey Company - Trung Van, Tu Liemm, Hanoi
	Economically dependent SOEs
246	Transport Informatics Education Center - 278 Ton Duc Thang str., Hanoi
247	Architecture Design & Construction Center, 278, Ton Duc Thang str., Hanoi
C	***Companies with Management Boards operating under Directive No.500/TTg dated 25/8/1995 by PM***
248	The Transport Materials & Equipment Im-Export Co. No.1(Vietranimex) - 201,Minh Khai str., Hanoi
249	The Transport Materials and Equipment Company No. 2 (Transmecco) - Thanh Xuan Bac, Hanoi
250	Transport Material Production Company No. 2, Nam Son - Tam Diep town - Ninh Binh
251	Transport Im-Export & Invest.Cooperation Company, 22 Nguyen Van Troi str., Binh Thanh Dis.HCMC
252	Transport Mechanical Company No.2 , Truong Tho ward, Q. Thu Duc, HCMC
D	***Independent Companies without Management Boards under MOT***
253	The Central Transport Services Company (Vinafco) - 33C, Cat Linh, Hanoi
254	The Transport Materials and Construction Company - 83A Ly Thuong Kiet str., Hanoi
255	The Labour Overseas Development Company (LOD) - 28 Tran Hung Dao str., Hanoi
256	The General Services and Construction Company - 127 Giai Phong road, Hanoi
257	The Vietnam Transport and Chartering Company (Vietfracht) - 74 Nguyen Du str., Hanoi
258	The Transport Publishing House - 80B, Tran Hung Dao str., Hanoi
259	Saigon Transport Services Company (Tranaco), 21-23 Pham Viet Chanh str., HCMC
260	Southern Transport Engineering Design Incorporation (TEDI-south), 92 Nam Ky Khoi Nghia, HCMC
261	Transport Tourism & Marketing Company (Vietravel), 16Bis, Alxandre de Rhodes, District 1, HCMC
262	Transportation Service Company No. 2, 80- Bach Dang - Da nang city
263	Hai phong Transport Service Company
	Subtotal employment of 11 companies
E	***Independent Companies under MOT modal Administrative***
E1	**Business State-owned enterprises**
1	**Vietnam Road Administrations (VRA)**
264	The Automobile Transport Freight Company No. 1 - , Quan Toan, Hong Bang District, Hai phong
265	The Automobile Transport Freight Company No. 2 - Gia Lam, Hanoi
266	The Automobile Transport Freight Company No. 3 - 344 Lo Duc str., Hanoi
267	The Automobile Transport Freight Company No. 4 , Bac Son ward, Tam Diep town, Ninh Binh
268	The Automobile Transport Freight Company No. 5 , Quan Bau, Vinh city, Nghe An
269	The Automobile Transport Freight Company No. 6, Hoa Khanh, Lien Chieu District, Da nang
270	The Automobile Transport Freight Company No. 8 - 7 Luong Yen str. Hanoi
271	The Passengers Transport Freight Company No. 10, 167/1 - Duong Tu Minh road, Thai Nguyen
272	The Passengers Transport Freight Company No. 14 - 57 Thai Thinh str., Hanoi
273	Transport Engineering Construction Consulting Company No.2, 278 Ton Duc Thang str. Hanoi
274	Transport Engineering Construction Consulting Company No.4, 2 Le Ninh Road, Vinh, Nghe An
275	Transport Engineering Construction Consulting Company No.5, 171 QL1A, An Khe, Da nang
276	Transport Engineering Construction Consulting Company No. 7, 92 Nam Ky Khoi Nghia, Q1, HCMC
2	**Vietnam Railway (VRU)**
277	Railway engineering union
278	Engineering company No.6
279	Railway Engineering Company No. I
280	Railway Engineering Company No. II
281	Railway Engineering Company No. III
282	Railway Structure Company

APPENDIX A
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No.	Names of Companies
283	Materials and Construction & Installation Company
284	Railway Housing Construction & Development Company
285	Consulting Company for Investment and Construction
286	Da Nang Railway Structure Enterprise
287	Gia Lam Train factory
288	Hai Phong Wagon factory
289	Di An Wagon factory
290	Railway bridge engineering factory
291	Railway Rubber factory
292	Da Nang Railway Engineering enterprise
293	Dong Mo stone enterprise
294	Phu Ly stone enterprise
295	Hoang Mai stone enterprise
296	Thuan Hai Railway Construction Materials enterprise
297	Railway materials & equipment supply import-export company
298	Da Nang Railway materials company
299	Sai Gon railway materials company
300	Ha Noi Railway service-tourist Co.
301	Da Nang Railway service-tourist Co.
302	Sai Gon Railway service-tourist Co.
303	Railway Transport service company
3	**VINAMARINE**
304	Rescue & Salvage Enterprise, 360 Hai Ba Trung str., District 1, HCMC
305	Maritime Construction Advisory Co.
306	Cua Lo sea-port, Vinh city, Nghe An
307	Quy Nhon sea-port, 2 Phan Chau Trinh - Quy Nhon city, Binh Dinh
308	Nha Trang sea-port, 5 Tran Phu - Cau Da - Vinh Nguyen - Nha Trang
4	**Vietnam Inland Waterway (VIWA)**
309	Inland Waterways Loading and Transportation Company, Ninh Binh
310	Waterways Eng. Design & Construction Company No.2 - Nguyen Cong Tru Street- District 1, HCMC
311	Inland Waterways Signal Enterprise
312	Inland Waterway Transport and Handling Company
E 2	**Public Service Enterprises**
1	**Vietnam Road Administrations (VRA)**
313	**48 Road management and repair companies**
	12 enterprises under RRMU 2 (Hanoi)
	11 enterprises under RRMU 4 (Vinh)
	10 enterprises under RRMU 5 (Da Nang)
361	15 enterprises under RRMU 7 (HCMC)
365	**4 Material and Equipment Supply and Enterprises**
369	**4 Ferry groups (control by RRMU)**
2	**Vietnam Railway (VRU)**
370	Yen Lao railway management enterprise
371	Vinh Phu railway management enterprise
372	Ha Long railway management enterprise
373	Ha Hai railway management enterprise
374	Ha Thai railway management enteprise
375	Ha Ninh railway management enteprise
376	Thanh Hoa railway management enteprise
377	Nghe Tinh railway management enteprise
378	Quang Binh railway management enteprise
379	Binh Tri Thien railway management enteprise

APPENDIX A
LIST OF TRANSPORT SOEs under Central Government

No.	Names of Companies
380	Quang Nam - Da Nang railway management enterprise
381	Nghia Binh railway management enterprise
382	Phu Khanh railway management enterpirse
383	Thuan Hai railway management enterprise
384	Sai Gon railway management enterprise
385	Bac Giang signaling and communication enterprise
386	Ha Noi signaling and communication enterprise
387	Vinh signaling and communication enterprise
388	Da Nang signaling and communication enterprise
389	Sai Gon signaling and communication enterprise
	Enterprises with Dependent Accounting
390	Union I
391	Union II
392	Union III
393	Railway ticket printing enterprise
	School, Health care, Newspaper Organizations
394	Railway high school
395	Railway technical-vocational school
396	Center for stand-by health care of the railway
397	Railway newspaper
	Project Management Units
398	Railway projects Management Units (RPMU)
399	Railway projects Management Units
400	Railway projects Management Units, Region 1
401	Railway projects Management Units, Region 2
402	Railway projects Management Units, Region 3
3	**VINAMARINE**
403	Vietnam maritime safety (VMS)
404	Vietnam electronic communication company
405	Pilot company I
406	Pilot company II
407	Pilot company III
4	**Vietnam Inland Waterway (VIWA)**
408	Inland waterway management Unit 1
409	Inland waterway management Unit 2
410	Inland waterway management Unit 3
411	Inland waterway management Unit 4
412	Inland waterway management Unit 5
413	Inland waterway management Unit 6
414	Inland waterway management Unit 7
415	Inland waterway management Unit 8
416	Inland waterway management Unit 9
417	Inland waterway management Unit 10
418	Inland waterway management Unit 11
419	Inland waterway management Unit 12
420	Inland waterway management Unit 13
421	Inland waterway management Unit 14
422	Inland waterway management Unit 15
423	Transport department of Thanh Hoa Province
424	Transport department of Nghe An Province
425	Transport department of Ha Tinh Province

APPENDIX A
LIST OF TRANSPORT SOEs under Central Government

No.	Names of Companies
426	Transport department of Quang Binh Province
427	Transport department of Quang Tri Province
428	Transport department of Thua Thien Hue Province
429	Transport department of Quang Nam Province
	Enterprises with Dependent Accounting
430	River port Authorties Region I
431	River port Authorties Region II
432	River port Authorties Region III
433	River port Authorties Region II
	School, Health care, new paper
434	Inland Waterway technical & training school
435	Navigation professional technical school I
436	Navigation professional technical school II
437	Canh Buom Information & managine Center
438	Inland Waterway Health care Center

APPENDIX B

Main Provisions of the Legal Framework for the Transport Sector

1. Modal Transport Acts and other Primary Legislation

Modal Transport Acts

- State Council Decree No. 42-LCT/HDNN8 dated July 12, 1990 (The Maritime Code).
- National Assembly Resolution passed on December 26, 1991 (the Law on Civil Aviation of Vietnam)
- Order No. 39-L/CTN dated April 30,1995 (The Law on Amendments and Additions to the Law on Civil Aviation passed by the National Assembly on April 20, 1995)

Safety Provisions

- Government Decree No. 36/CP/1995 dated May 29,1995 on ensuring traffic order and safety of the road and urban transport. (Amended and supplemented by Decision of the Government No. 75/ND-CP/1998 dated September 26,1998).
- Government Decree No. 39-CP/1996 dated July 5, 1996 on ensuring railway traffic and safety. (Amended and supplemented by Government Decision No. 76/ND-CP/1998 dated September 26,1998)
- Decree No. 40 dated July 5, 1996, on ensuring navigation order and safety on inland waterways. (Amended and Supplemented by Government Decree No. 77/ND-CP/1998 dated September 26, 1998).
- Prime Minister Decision No. 204/TTg/1992 dated December 28,1992 on the issuance of regulation on organization and operation of Vietnam maritime safety.

2. Implementing Regulations for Transport and Traffic

Road

- Joint Circular prepared by the Legal Department and the Science and Technology Department of MOT No. 135/PC-KHKT/1995 of June 27, 1995, establishing mandatory periodic vehicle inspection, control and approval of technical safety.
- Ministry of Transport Decision No. 1653/DQ-GTVT/1997 dated June 28, 1997 on the promulgation of charges and fees for loading/unloading transporting oversized and overweight freight.
- Ministry of Transport Circular No. 112/TT-BGTVT/1998 dated April 29, 1998, on Instructions on Management and Granting Special Operation Permits for Overloaded, Oversized and Unfit vehicle on roads. This stipulates that trucks should not be wider than 2.5m, not higher than 3.5 m, with a maximum permissible weight of 16 tons for a double axle truck and 21 tons for a 3 axles truck. The circular allows vehicle weights to vary with axle configuration (similar to ASEAN rules). Two levels are applied (a) below which no special authority is required, but above which special authority is required and can be given for a period of time, and (b) above which special authority for excessively loaded vehicles is required for each trip.

Due to the height limit of 3.5m, below which no special authority is required, any transport of container by road should require authorization for a given period since the height of the container plus an operational safety margin requires a clearance between 4.0 m and 4.12 m.

The circular puts pressure on the transport of containers by road and represents a serious inconvenience to the development of the containerization.

Inland Water

- Decree No. 40-CP dated July 5, 1996 on ensuring navigation order and safety on inland waterways (Article 24) states that the means of transport must meet Vietnamese standards, branch technical standards and must be issued with the following papers (a) certificate of registration (b) list of crew (c) safety certificate (d) transport permit (for means engaged in transport business).
- MOT Decision No. 2056QD/PC dated August 6, 1996 on vessel registration requirements.

Railway

n/a

Maritime

- Decree No. 91/CP/1997 dated August 23, 1997 defines the conditions for registration of sea-going ships and crews in Vietnam and the overseas registration of sea-going ships under the ownership of Vietnam. Replaces the former Decree No 14/CP dated February 25, 1994, extends cover to shipping vessels and removes various restrictions (e.g. on foreign-owned vessels registered in Vietnam being used for domestic services).
- MOT Decree No. 1387/1998/QD-BGTVT dated June 3, 1998 on the Issuance of Regulations on Training, Certification and Service in the Capacity of Seafarers on board Vietnam sea-going vessels.
- Government Decree No. 99/1998/ND-CP dated November 28, 1998 on the management of purchasing and selling sea vessels. Simplifies procedures.

Aviation

- Council of Ministers Decree No. 111/HDBT in respect of provisions for the entry into, departure from and transit over the airspace of the SRV by aircraft of foriegn states dated July 2, 1988.
- Ministry of Defence No. 32 QD-QP dated January 1, 1988 concerning flight operation, air space management and control regulations in the air space of SRV.
- General Civil Aviation Administration No. 507/HKDD dated January 1, 1988 concerning civil air traffic regulations.
- General Civil Aviation Administration No. 697/TCHK concerning flight regulations.
- Circular No. 92-CAAV/1997 dated January 13,1997 providing guidance for the implementation of the regulation on the registration of aircraft, registration of the assignment of ownership over aircraft and civil aircraft mortgage registration. This responsibility is a follow up to Decree No. 68/CP/1995 dated October 25, 1995 which gives responsibilities to the Civil Aviation Administration of Vietnam (CAAV).

Operating rules are contained in the AIP Vietnam document. Vietnam Aviation Regulations (including technical standards) are being prepared for "Air Frame, Fixed Wing", "Maintenance Base" and other aspects (see documents VAR-OPS-1 and VAR-145 respectively).

3. Business Regulation

Road

- Decision No. 2076/QD-BGTVT/1998 dated July 18, 1998 on the issuance of Road business transport Licenses. The Road Transport License replaces the existing Transport License. This road transport license is issued for public road transport of passengers and goods as well as transport of goods for own account.

The transport of tourists is not covered by this decision, which was handled under Decision No. 2418/QD-LB/1993, dated December 4 1993.

Procedure to get a transport license requires a business regulation license, a vehicle ownership certificate and, for public passenger services, an authorization by the concerned authority. The Ministry of Transport delegates to the Province Transport Authority the issuance of the license.

- Ministry of Transport Decision No. 1748 QD/GTVT/1997 dated July 12, 1997 regarding temporary regulation on organization, management and issuance of a road transport license.

Under these provisions, the Vietnam Road Administration (VRA) has been delegated powers by MOT to implement state management functions for road transport and to issue all types of road transport licenses or interprovincial licenses for passenger and goods transportation. VRA is also charged to unify management of all forms of road transport licenses. The Provincial Transport Authorities (PTAs) will issue passenger transport licenses for movements within the province and freight transport within local areas. The application for a transport license must contain details of routes, a timetable, type and number of vehicles to be used.

There are two types of operators: (1) individuals operating in accordance with Circular No. 19 TT/PCVT; (2) Business firms established in accordance State Business Law, Company Law, Private business Law, Cooperative laws and laws of foreign investment in Vietnam which are authorized to operate within local areas or all over the country (freight transport) or along specific authorized routes (passenger transport).

These road transport licensing provisions were abolished under Decree No. 19 dated February 3, 2000. Any future licences will be approved by government in accordance with Article 6 of the Law on Enterprises (Law No. 13/1999/QH10).

- Decision No. 729/QD-BGTVT/1999 dated March 24, 1999 made by the Minister of Transport promulgating the Regulation on Organization, Management and Operation of Passenger Transport Automobile by Contract mode.

- MOT Decision No. 890/QD-BGTVT/1999 dated April 4, 1999 on promulgating of industrial standards. Places various restrictions on bus standards and maximum age (15 years, or 10 if converted from a truck chassis).

Inland Water

- MOT Decision No. 1035 QD/VT dated June 12, 1990 and MOT Decision No. 1036 QD/DT dated June 12, 1990 on the issuing of the inland water transport licence. PTAs are responsible for issuing the licence.

These transport licensing provisions were abolished under Prime Minister Decision No. 19 dated February 3, 2000. Any future licences will be approved by government in accordance with Article 6 of the Law on Enterprises (Law No. 13/1999/QH10).

Railway

- Government Decision prepared by the Transport Department of MOT No. 720 QD-VT/1990 of 25 April 1990 which stipulates the rights and obligations of the Vietnam Railways and the regulations to be applied to the carriage of goods by the national railways. The Decision also regulates the rights and obligation of Vietnam Railways and the goods owner. The railway company is liable to maintain the goods from the time of receipt until it is delivered to the goods owner. The railway company has to compensate to the goods owner the goods lost or damaged if they cannot prove that such fault has not been cause by them.

Maritime

- Government Decree No. 40/ND-CP/1998 dated June 10, 1998 on carrying out shipping business by companies and private enterprises.
- MOT Decision No. 2054/QD/PC dated August 6, 1996 on stipulating procedures for opening cargo and passenger liner services of foreign maritime ships at Vietnamese ports. Gives discretion to MOT to allow foreign services (e.g. to set floor price).

Aviation

n/a

4. Control of Charges

Charging for Road Transport

- Decision of the Government Pricing Committee No. 36 /VGCP-CNTDDV/1997 dated May 8, 1997 on tariffs of goods transportation by motorcar. This Decision signed by the Chairman of the Government Pricing Committee set up the principles and methods for calculating the cost of transport by trucks in cases of (i) payment by state budget funds or (ii) goods transported in the mountainous areas.

Charging for Railway Services

- Decision No. 560/VC-KHDT/1995 dated December 23, 1995 issued by the General

Director of Vietnam Railways Union. The circular gives general indication on the way to calculate railways fares.

- Circular No. 3/TTLT-BVGCP/1998 dated April 24,1998 guiding the implementation of the Railway Transportation Freight Management Mechanism. Circular issued by the Government Pricing Committee and the Ministry of Transport. This circular sets up the principles for setting railway freight transport. "Freight is determined on the principles suited to the market mechanism and ensuring the business cost-profit accounting in the whole service". The Vietnam Railways Union can decide the freight rates except for food transported from South to North Vietnam and fertilizers from North to South Vietnam according the state planning.
- Decision No. 1039/CV-KGDT/1998 dated November 11, 1998: Passengers fares differ with the type of train, and nationality (Vietnamese or foreigners). The difference is 1.87 times for hard seat and 2.48 times for soft sleeper air-conditioned. The unit fare decreases with distance.
- Decision No. 26/QD-HKDT/1999 dated January 14, 1999. Tariffs are different according to the transport distance.

Charging for Inland Water Services

- Charges set by Government Pricing Committee according to Decision dated July 15,1995.

Charging for Port Services

- Decisions made by the Government Commodities and Price Committee:
- Government Pricing Committee Decision No. 127/VGCP-CNTD.DV/1997 dated October 28,1997 gives rules to calculate fees and dues for (1) ships belonging to foreign enterprises operating under the Law for Foreign Investment in Vietnam and (2) ships belonging to Vietnamese organisations or private Vietnamese operators who are importing/exporting.
- Government Pricing Committee Decision No. 128/VGCP-CNTD.DV/1997 dated October 28,1997 gives rules to calculate fees and dues for domestic cargo vessels.
- Some tariffs such as tonnage and navigational aids are extremely low with setting at 5-15% of the overseas shipping.
- Ministry of Finance Decision No. 16/1999/TT/BTC on providing guidelines for imposing tax on the transportation of cargo by foreign shipping firms offering services in Vietnam.

Charging for Aviation Services

- Prime Minister Decision No. 818/TTg/1995 dated December 13, 1995 on the management of airfares of the Vietnam civil aviation. There are two different domestic airfares in Vietnam, one is applicable to foreigners and overseas Vietnamese and the other one is for Vietnamese.
- Inter-ministerial circular No. 904/CAAV dated May 6, 1996 concerning the arrangements for setting fares.
- Government Pricing Committee Circular No. 171/1998/TTLB/BVG-CAAV dated February 7, 1998. Distinguishes charges stipulated by the Committee, by CAAV and by others. All charges are to be based on expenditure, meet international conventions and take account of market conditions.

5. Insurance

Government Decision No. 115/ND-CP of December 17, 1997 on regime of obligatory insurance for civil responsibilities of the owners of motorized vehicles. In particular, all vehicles operating under a business license must be adequately insured against third party risks covering persons and property, and for any liability, which may be incurred in respect of death and bodily injury. Passenger liabilities must cover all authorized passengers.

The Decree, however, does not address the possibility of obtaining insurance on a "blanket " basis. Under this arrangement vehicles are not specified on the Certificate of Insurance but the operator has to make a periodic return of vehicles owned to the insurance company.

The Ministry of Interior has the responsibility of organizing inspection and supervision of implementation, and of assuming the main responsibility in investigating and handling road traffic accidents.

The Ministry of Transport (MOT) issues the technical norms and in coordination with the Ministry of Interior analyses the causes of accident and study the conditions to have this regulation implemented.

Minister of Finance Decision No. 299/QD-BTC/1998 dated March 16, 1998 issuing the regulation on obligatory insurance for motorized vehicle owners' civil responsibility and the premium and insured responsibility level index. With this decision is issued a regulation on how to issue an insurance policy, the content of an insurance contract, the condition for its cancellation, the responsibilities of the motorized vehicle owners and of the insurance companies.

6. Planning and Finance

Decree No. 42/CP/1996 dated July 16, 1996 on the regulation of management of investment and construction. The fundamental principle is that the state exercises unified management of investment and construction over all economic sectors.

The domestic investment projects are divided into three groups A, B, and C, which were defined in the annex classifying investment projects.

Projects group A: Domestic BOT projects to construct infrastructure for industrial park, urban infrastructure with an investment of 100 billion VND ($7.4 million) or more; ODA projects at $1.5 million; Projects with large investment capital of: a) more than 400 billion VND ($30 million) for construction of sea ports, airports and highways; b) more than 200 billion VND for any other transport project.

Projects group B: projects with a total investment above the level defined for group C and below the level defined for group A.

Projects group C: projects with a total investment less than 30 billion VND ($2,2 million) for projects in transport, power,

The Ministry of Transport has the power to permit the investment of projects of categories B and C and submit to Prime Minister for approval of investment projects of category A.

Decision of the Ministry of Transport No. 375/KHDT-CGD/1997 on decentralization in making decision on investment in the transport sector. The Decision has specified that directors of the specialized transport departments (Vietnam Road Administration, Vietnam Inland Waterways Administration and Vinamarine) and the General Director of Vietnam Railways Corporation can decide on their own investments of category C which are under their area of responsibility. They have in any case to follow all the procedures which were given in Decree No. 42/CP/1996 and an official agreement should be obtained from the Ministry of Planning and Investment.

7. Financing (BOT)

- Decree No. 43/CP/1996 dated July 16, 1996, promulgating the regulation on Bidding
- Decree No. 77/CP/1997 dated June 18, 1997, promulgating the regulation on investment in the form of Build-Operate-Transfer (BOT) contract applicable to domestic investment.
- Decree No. 92/CP/1997 dated August 23,1997 amending and supplementing a number of articles of the regulation on the management of construction and investment issued together with Decree 42/CP/1996
- Decree No. 93/CP/1997 on amendments and supplements to a number of articles of the regulation on bidding issued together with Decree No. 43/CP/1996
- Decree No. 62/ND-CP/1998 dated August 15, 1998, promulgating the regulation on investment in forms of Build-Operate-Transfer-Operate contracts and Build-Transfer contracts applicable to foreign investment in Vietnam.
- Decree No. 2/ND-CP/1999 dated January 27,1999 amending and supplementing a number of articles of the regulation on investment in forms Build-Operate-Transfer-Operate contracts and Build-Transfer contracts applicable to foreign investment in Vietnam.

8. Organizational Responsibilities

- Law on Organization of the Government (Order No. 01L/CTN/1992 dated October 2, 1992) gives a new definition of the tasks, powers and State management responsibilities of the ministries and ministerial-level agencies
- Government Decree No. 22-CP/1994 dated March 22, 1994 on the tasks, powers and State management responsibilities of the Ministry of Communications and Transport has defined the Ministry of Transport (MOT) as the "Government agency that exercises the function of State management over roads, railways, inland waterways, maritime and civil aviation over the country".

In view of a reorganization of the Government to be ready for submission to the National

Assembly by 2001, the Government and each ministry are presently working on a new distribution of their tasks and responsibilities. One of the ideas behind this on-going process is to reduce the number of Ministers and to make them more in control of their areas of competence.

- MOT Directive No. 356/CT-BGTVT/1998 dated November 3, 1998, on Strengthening the Administrative Reform in the Transport Sector. Endorses the need for restructuring within MOT transport institutions and administrative process, and to replace Government Decree No. 22-CP/1994 dated March 22, 1994.
- Decree No. 08/CP/1993 dated January 1993, for establishment of Vietnam Inland Waterway Bureau.
- Decree No. 239/HBDT/1992 dated June 22, 1992, for establishment of Marine Department Bureau.
- Prime Minister Decision No 31/TTg dated February 2, 1993, concerning the promulgation on organization and operational rules of VINAMARINE.
- Prime Minister Decision No 639/TTg dated August 12, 1997 on organization, functions, duties and powers of the maritime port authorities.
- MOT Decision No 3428/GTVT/KHDT dated October 28, 1998 on assignment of management of routes to islands. Separates responsibility between VINAMARINE and VIWA for various coastal routes between islands and the coast.
- Draft MOT Decision No 1999/QD-GTVT (undated) concerning decentralization of administrative responsibility between the maritime sector and the inland water sector for rivers and coastal areas of Vietnam.
- VINAMARINE Notice No 357/CHHVN-PCHH dated March 13, 1999 giving opinion on the draft MOT Decision No. 1999/QD-GTVT.
- Government Comment No 588/VPCP-CN dated February 8, 1999 on strengthening state administration of investment in seaports construction, business and operation. Assigns planning and implementation responsibilities for ports in HCMC area.
- Decrees of establishment of Vietnam Civil Aviation Department (functions, tasks, powers and organizational structure (Decree 68/CP/1995 dated October 25, 1995) and decree to place the Vietnam Civil Aviation Department under the direct control of the Government (Decree 32/CP/1995 dated May 22, 1995).
- Prime Minister Decision on organizations, functions, tasks and powers of airport authorities. (Decision 950/TTg/1996 dated December 19, 1996.)
- Prime Minister Decision No. 15/1998/QD-TTg of 24 January 1998 on transforming the Vietnam Air Traffic Management Center into a State public utility enterprise.
- Prime Minister Decision No 202/TTg dated December 28, 1992 on issuing regulations for activities among state management organizations and agencies at sea ports in Vietnam.

Provisional Regulations on the reorganization of VRA and VIWA

VRA: Government Decision No 3525/QD-BGTVT/1998 dated December 23,1998 to issue provisional regulation on the organization and operations of the Vietnam Road Administration.

VIWA: Government Decision No 3619/QD-BGTVT/1998 dated December 31,1998 to issue

provisional regulation on the organization and operations of the Vietnam Inland Waterways Administration.

The regulations for VRA and VIWA are provisional because MOT with VRA and VIWA had no time to go through the legal process and the feedback required from all concerned parties, in order to have a Decree signed.

Decree No.167/1999/ND-CP dated November 26,1999 on organizing the land road management. This decree defines the responsibilities for road management. MOT shall exercise unified state management over roads throughout the country, including technical standards, and delegates direct management of the national highway to VRA. Provincial People's Committees can plan roads under MOT guidance, requiring consent from MOT over classification. District roads are decided by PPC, commune roads by district People's Committee. PTAs carry out direct management of provincial roads plus national roads designated by MOT (on advice of VRA). District PCs manage district roads. MOT and MOF agree on finance for roads. Fund allocations by MPI and MOF to the provinces are to be reported by these ministries to MOT.

These provisions confirm the present centralized administration of roads, giving VRA limited powers - just to maintain certain national roads.

VIRES: Statute for organizing and implementing registration of ships and other equipment in Vietnam No 23/TTg dated December 28, 1992.

Decree No. 80-CP/1996, dated December 5, 1996 on the organization and operation of the Traffic Inspectorate will inspect the application of the provisions of the law on the protection of traffic works. The Minister of Transport and Communications will organize and supervise the operation of the traffic Inspectorate throughout the country.

Three Traffic inspectorates are established (road, railways, inland water transport). Traffic Inspectors are in charge of controlling the enforcement of the rules and the granting of permits. They are placed under the management of the provincial and municipal Transport Agencies (PTAs and MTAs), established by the provincial or municipal people committees under the guidance of the Ministry of Transport.

For example, the railway inspectorate was established under MOT Decision No 1049 QD/TCCB-LD dated April 24, 1997.

- Government Decision No. 917/QD-TTg/1997 dated October 29, 1997 on the Establishment of the National Committee for Traffic Safety. Coordinates operations of the ministries and local authorities in ensuring traffic order and safety. It replaces The Central Steering Committee for Traffic Safety established in 1991. The Committee will advise the Prime Minister on the actions to be taken and will organize the coordination among the central agencies and the concerned organizations.
- Circular No. 61/TT-BTC/1998 dated May 13, 1998 issued by the Ministry of Finance on

guiding management of finance for transport safety supported by the central budget.

- Decree No. 78/ND-CP/1998 dated September 26, 1998 on amendments and supplements to a number of articles of Decree No. 49/CP/1995 of the Government.

9. SOE Restructuring

- Government Decree No. 90/TTg/1994 dated March 7 1994 on the re-structuring of SOEs. The SOEs restructured in the transport sector under this decree are placed under the control of MOT.
- Government Decree No. 91/TTg/1994 dated March 7 1994 on the establishment of business corporations. The SOEs restructured in the transport sector under this decree are placed under the control of the Prime Minister (VINALINES, VINASHIN, CIVIL AVIATION CORPORATION)
- Law on States Enterprises by No. 39/L-CTN/1995 dated April 30 1995.
- Directive No. 272/TTg/1995 dated May 3, 1995 calling for early completion of the reorganization of the Unions of Enterprises and Corporations.
- Directive No. 500/TTg/1995 dated August 25 urgently requiring re-organization of SOEs.

"The reorganization of State owned enterprises to operate under the law on State enterprises must be closely combined with the gradual abolition of the regime of direct management of State owned enterprise by the ministries and the local administration as at present. This aims to improve step by step the situation in which many stated owned enterprise of the same industry or service operate on the same area, but are under the management of different ministries".

- Directive No. 20/CT-TTg/1998 dated April 21, 1998 on stepping up the reorganization and renewal of SOEs.
- Decree No. 39/ CP/1995 dated June 27, 1995 promulgating the model statute on organization and operation of State Corporations

VINALINES

- Vietnam National Shipping lines (VINALINES) (HQ: Hanoi; 24 subsidiary units and 11 joint ventures with 11 with foreign capital);
- Decision No. 250/TTg/1995 dated April 29, 1995 on the establishment of Vietnam Maritime Corporation (VINALINES)
- Decree No. 79/CP/1995 dated November 22, 1995 ratifying the statute of the organization and operation of Vietnam National Shipping Lines.

VAC

- Vietnam Airlines Corporations (VAC) (HQ: Hanoi; 20 subsidiary units and 6 joint ventures)
- Decision No. 328/TTg/1995 dated May 27, 1995 on the establishment of Vietnam Aviation Corporation
- Decree No. 4/CP/1996 dated January 27, 1996 ratifying the statute of the organization and operation of Vietnam Airlines Corporation.

VINASHIN

- Vietnam Shipbuilding Industry Corporation (VINASHIN) (HQ: Hanoi; 22 subsidiary units and 2 joint ventures)
- Decision No. 69/TTg/1996 dated January 31, 1996 on the establishment of the Vietnam Shipbuilding Industry Corporation
- Decree No. 33/CP/1996 dated May 27, 1996 ratifying the statute of the organization and operation of Vietnam Shipbuilding Industry Corporation

The Government still directly exercises control over final decisions on major policies, investment plans and on the appointment and dismissal of senior management.

CAAV and VINAMARINE still combine their regulatory functions as Civil Aviation Authority and Ports and Shipping Authority with a strategic influence over VAC and VINALINES respectively. Vietnam National Air Service (Vietnam Airlines) is "member unit with dependent accounting" of Vietnam Airlines Corporation (VAC). It means Vietnam Airlines that have not a separate budget from VAC and cannot produce separate financial results.

Public Service SOEs

- Decree No. 56-CP/1996, dated October 2, 1996 distinguishes Public Service and Business SOEs. "The Public Service State-Enterprise is independent states enterprises or independent cost accounting unit of State corporations which have the responsibility to produce goods and /or provide public services according to plans and production orders of the State".
- Joint circular No. 154/TTLT-BTC-BGTVT/1998 dated December 4, 1998 for the Inland Waterways service, and
- Joint circular No. 161/TTLT-BTC-BGTVT/1998 dated December 16, 1998 in the field of railway infrastructure management and repair.

Through these two circulars the Ministry of Finance and the Ministry of Transport have provided guidance on the financial management regime of the public interest State enterprises in railway and inland water transport.

10. Equitization

- Decree No. 44/ND-CP/1998 dated June 29, 1998 on the transformation of SOEs into joint stock companies.
- Directives from Ministry of Finance No. 868/CT-BTC/1998; No. 104/TT-BTC/1998; No. 3138 /TC-TCDB/1998.
- See Note Program of Equitization of MOT), MOT has reported to the Prime Minister a list of 15 enterprises in the transport sector to be equitized in 1999-2000. (MOT Decision No. 380/GTVT-TCCB-LD/1999 dated March 2, 1999).

- Prime Minister Direction No. 20/1998/CT-TTg dated April 21, 1998 with the aim of strengthening the equitization process of state-owned enterprises.
- MOT preliminary report No. 2562/BGTVT-DMQLDN dated June 30, 1999 on the status of

the equitization plan.

- VINALINES Report No. 748/TCKT dated July 26, 1999 on their equitization plan.
- Ministry of Finance Guideline No. 3138TC/TCDN dated August 19, 1998 on implementing equitization of state enterprises.
- Decree No. 103/1999/ND-CP dated September 9,1999 on assigning, selling, business contracting or leasing state enterprises.

11. Other Aspects

Regulation of Import of Transport Equipment

- Prime Minister Decision No. 254/1998/QD-TTg dated December 30, 1998 on the management of goods import and export in 1999. Forbids import of second-hand automobiles (including buses and trucks).
- Ministry of Trade Circular No. 03/1999/TT-BTM dated January 15, 1999 guiding the implementation of Prime Minister Decision No. 254/1998/QD-TTg dated December 30, 1998.

APPENDIX C

International Conventions on Air Transport Signed by Vietnam

STATUS OF VIET NAM WITH REGARD TO INTERNATIONAL AIR LAW INSTRUMENTS *(as of 31 August 1999)*				
		Date of Signature	**Date of Ratification or Accession**	**Effective Date**
1.	Convention on International Civil Aviation Chicago, 7/12/44		13/3/80	12/4/80
2.	International Air Services Transit Agreement Chicago, 7/12/44	-	-	-
3.	International Air Transport Agreement Chicago, 7/12/44	-	-	-
4.	Protocol on the Authentic Trilingual Text of the Convention on International Civil Aviation Buenos Aires, 24/9/68	-	-	12/4/80[1]
5.	Protocol on the Authentic Quadrilingual Text of the Convention on International Civil Aviation Montreal, 30/9/77	-	-	-
*6.	Protocol on the Authentic Quinquelingual Text of the Convention on International Civil Aviation Montreal, 29/9/95	-	-	-
*7.	Protocol on the Authentic Six-Language Text of the Convention on International Civil Aviation Montreal, 1/10/98	1/10/98[2]	-	-
8.	Article 93 *bis* Montreal, 27/5/47		3/2/99	3/2/99
9.	Article 45 Montreal, 14/6/54		3/2/99	3/2/99
10.	Articles 48(a), 49(e) and 61 Montreal, 14/6/54		3/2/99	3/2/99
11.	Article 50(a) Montreal, 21/6/61		-	-
12.	Article 48(a) Rome, 15/9/62		3/2/99	3/2/99
13.	Article 50(a) New York, 12/3/71		-	-
14.	Article 56 Vienna, 7/7/71		-	-
15.	Article 50(a) Montreal, 16/10/74		-	-
16.	Protocol of Amendment (Final Clause, Russian Text) Montreal, 30/9/77		20/9/83	17/8/99
17.	Article 83 *bis* Montreal, 6/10/80		7/2/96	20/6/97

STATUS OF VIET NAM
WITH REGARD TO INTERNATIONAL AIR LAW INSTRUMENTS
(as of 31 August 1999)

		Date of Signature	Date of Ratification or Accession	Effective Date
18.	Article 3 *bis* Montreal, 10/5/84		3/2/99	3/2/99
*19.	Article 56 Montreal, 6/10/89		11/12/96	-
*20.	Article 50(a) Montreal, 26/10/90		11/12/96	-
*21.	Protocol of Amendment (Final Clause, Arabic Text) Montreal, 29/9/95		-	-
*22.	Protocol of Amendment (Final Clause, Chinese Text) Montreal, 1/10/98		-	-
23.	Convention on the International Recognition of Rights in Aircraft Geneva, 19/6/48	-	18/6/97	16/9/97
24.	Convention on Damage Caused by Foreign Aircraft to Third Parties on the Surface Rome, 7/10/52			
*25.	Protocol to Amend the Rome Convention of 1952 Montreal, 23/9/78	-	-	-
26.	Convention for the Unification of Certain Rules relating to International Carriage by Air Warsaw, 12/10/29		11/10/82	9/1/83
27.	Protocol to Amend the Warsaw Convention of 1929 The Hague, 28/9/55		11/10/82	9/1/83
28.	Convention, Supplementary to the Warsaw Convention, for the Unification of Certain Rules relating to International Carriage by Air Performed by a Person Other than the Contracting Carrier Guadalajara, 18/9/61	-	-	-
*29.	Protocol to Amend the Warsaw Convention of 1929 as Amended by The Hague Protocol of 1955 Guatemala City, 8/3/71	-	-	-
30.	Additional Protocol No. 1 Montreal, 25/9/75	-	-	-
31.	Additional Protocol No. 2 Montreal, 25/9/75	-	-	-
*32.	Additional Protocol No. 3 Montreal, 25/9/75	-	-	-
33.	Montreal Protocol No. 4 Montreal, 25/9/75	-	-	-
*34.	Convention for the Unification of Certain Rules for International Carriage by Air Montreal, 28 May 1999	-	-	-
35.	Convention on Offences and Certain Other Acts Committed on Board Aircraft Tokyo, 14/9/63		10/10/79	8/1/80[3]

STATUS OF VIET NAM
WITH REGARD TO INTERNATIONAL AIR LAW INSTRUMENTS
(as of 31 August 1999)

		Date of Signature	Date of Ratification or Accession	Effective Date
36.	Convention for the Suppression of Unlawful Seizure of Aircraft The Hague, 16/12/70		17/9/79	17/10/79 [4]
37.	Convention for the Suppression of Unlawful Acts against the Safety of Civil Aviation Montreal, 23/9/71		17/9/79	17/10/79
38.	Protocol for the Suppression of Unlawful Acts of Violence at Airports Serving International Civil Aviation, Supplementary to the Convention for the Suppression of Unlawful Acts against the Safety of Civil Aviation, done at Montreal on 23/9/71 Montreal, 24/2/88	-	25/8/99	24/9/99
39.	Convention on the Marking of Plastic Explosives for the Purpose of Detection Montreal, 1/3/91	-	-	-
40.	Convention on the Privileges and Immunities of the Specialized Agencies 21/11/47		-	-

* Not in force

Note

[1] Acceptance of the Protocol on the Authentic Trilingual Text of the Chicago Convention is deemed by virtue of adherence to that Convention, as provided by Article V of the Protocol.

[2] Signed with reservation as to acceptance.

[3] **Reservation:** The Government of Viet Nam does not consider itself bound by Article 24, paragraph 1, of the Tokyo Convention.

[4] **Reservation:** The Government of Viet Nam does not consider itself bound by Article 12, paragraph 1, of The Hague Convention.

APPENDIX D

Assessment of Competition

This appendix presents estimates of the amount of possible economic distortion associated with price controls, inadequate cost recovery or other intervention.

Tables D.1 to D.5 summarize the estimates for each mode of transport.

Because of lack of reliable data, many approximate assumptions have to be made in making the estimates, as described in the footnotes of each table.

Further tables in this appendix contain supporting information on cost recovery.

Table D.1

Road Transport

NATURE OF DISTORTION	ANNUAL COST	ACTION REQUIRED
(a) Prices		
Tariff controls on trucks in mountainous/remote areas	n/a	Abolish and pay subsidy for specific hauls by lowest cost operators
(b) Externalities		
Accident costs (partly imposed on society rather than road users)	US$ 20 m	Development of road safety programs and third party insurance schemes
Medium and heavy trucks do not pay their share of road damage costs	US$ 11 m	Introduce rational road user pricing with fuel taxes and road damage fees
(c) Others		
Bus fares do not cover costs of many non-urban SOE bus operators	US$ 12 m	Adopt demonopolisation policies (remove route quotas, equitize bus SOEs, encourage new entrants, liberalize fares).
Unnecessary licensing costs	US$ 2 m	Simplify licensing procedures

Note

(1) Long-run operating deficit of buses estimated assuming interprovincial bus travel demand of 159 million passenger km per day, of which 30% is SOE bus (VITRANSS surveys and forecasts), and average deficit of VND 10 per passenger km (VRA estimated fares increase required for cost recovery was VND 20 in the north). Excludes deficit of local and urban services.

(2) Total accident costs imposed on non-road users estimated as 0.1% of GDP (US$ 20,000m) assuming that about 10% of total accident costs are borne by non-road users and total costs of road accidents amount to 1% of GDP (World Bank Road Safety Strategy Study estimate, March 2000).

(3) Assuming US$ 40 m periodic variable periodic road maintenance costs minus US$ 29 m fuel charge payments by medium and heavy trucks (World Bank Transport Sector Report, 1999), representing the minimum level of distortion.

(4) Unnecessary licensing costs estimated as reduction from 600,000 to 300,000 licences (for 300,000 vehicles), with licence charge of VND 30,000 plus user cost of VND 70,000.

Table D.2

Inland Water Transport

NATURE OF DISTORTION	ANNUAL COST	ACTION REQUIRED
(a) Prices Port charges regulated by government are not based on costs or marketing policies of ports	n/a	Allow ports to propose charges and approve these except in monopoly situations
(b) Externalities No externalities identified	n/a	
(c) Others Long-term contracts between SOE customers and transporters prevents development of competition	Potentially US$ 1 m	Require major SOE users of waterway services to award transport contracts by competitive tender

Note
(1) SOEs carry 37% of inland water tonne km (VITRANSS Transport Survey Report). Assume 25% is on long-term contract and 10% scope for cost reduction from current regulated charge of VND 310 to typical charge quoted by freight forwarders of 280 per tonne km (VITRANSS Technical Report on Transport Costs).

Table D.3

Railway

NATURE OF DISTORTION	ANNUAL COST	ACTION REQUIRED
(a) Prices Price controls impose higher fares on foreigners than on Vietnamese	n/a	Allow the railway to set fares according to its marketing strategy
(b) Externalities Railway fares and tariffs do not fully cover infrastructure maintenance costs	US$ 15 m	Improve cost recovery by adjusting costs and tariffs, and/or subsidize specific services
(c) Others Railway exempt from capital charges	US$ 3 m	Restore capital charges to establish a level playing field
Railway pays traffic fee fuel levy used for infrastructure maintenance of other modes	US$ 1 m	Take account of this implicit transfer from railway to State Budget when estimating state financing of railway

Note
(1) Government contribution to infrastructure cost of VND 185 billion in 1998.
(2) Typical level of charges in 1995/96 was VND 36 billion.
(3) Railway consumes 33 m litres of fuel, VND 300 per litre transport charge.

Table D.4
Shipping

NATURE OF DISTORTION	ANNUAL COST	ACTION REQUIRED
(a) Prices		
Floor price for foreign liner services using Vietnamese sea ports	n/a	Phase out in short term to establish a level playing field
Port charges regulated by government are not based on costs or marketing policies of ports	n/a	Allow ports to propose charges and approve these except in monopoly situations
(b) Externalities		
Waterway charges for coastal shipping may be less than variable infrastructure costs	Potentially US$ 0.2 m	Set waterway charges for coastal shipping at least equal to variable costs of operation and maintenance of waterways.
(c) Others		
VINALINES shipping enterprises achieve low cost recovery (operating ratio of 0.99)	US$ 8 m	Corporatize viable companies as independent companies and encourage joint ventures to improve management. Liquidate unviable companies, instead of cross-subsidizing from profitable companies (up to US$ 0.5 m, or 0.3% of turnover within VINALINES)

Note
(1) Assume 15% of waterway infrastructure operation and maintenance cost is variable (all salvage/clearance costs plus 20% of operations/maintenance/repair costs), full cost recovery requires current tonnage and navigational aids charges for international shipping (US$ 0.2 and 0.5 per GRT per ship call respectively) compared to current coastal shipping charges of VND 400 and 400 respectively (a difference of VND 670 per GRT per ship call). Annual cost assumes coastal shipping freight traffic of 7.5 million tonnes per year, equivalent to 15,000 ship calls with 500 tonnes per call (with average 300 tonnes GRT vessels).
(2) Operating ratio of 0.99 for VINALINES transport companies estimated for 1998 from VND 1,214 billion turnover and VND 14 billion profit (before tax). Shortfall estimated assuming a minimum-operating ratio of 0.90 is required to sustain financing of operations on a commercial basis.

Table D.5
Aviation

NATURE OF DISTORTION	ANNUAL COST	ACTION REQUIRED
(a) Prices		
Price controls impose higher fares on foreigners than on Vietnamese	US$ 30 m annual transfer from foreigners to Vietnamese	Allow the airlines to set fares according to their marketing strategy, to maximize revenue
Price controls prevent some domestic routes from covering operational costs	US$ 0.6 m cross-subsidy	If government wishes to continue subsidy, award contracts to operate specific air services
(b) Externalities		
Airport fees may not fully cover infrastructure costs at some airports	n/a	Base charges for each airport and for air traffic control services on costs
(c) Others		
No other distortion identified		

Note
(1) Air traffic is 4 m passenger km per day (out of VITRANSS total estimate of 159 m), average fare paid is VND 1,831 per passenger km (about double that paid by Vietnamese), and about 30% of domestic passengers are foreign (according to Pacific Airlines). Revenue from foreigners is VND 800 billion per year; of which half is excess revenue over that paid if Vietnamese had made the same trips.
(2) Scheduled distance flow by Fokker 70 aircraft is estimated as 1.8 m per year, with operating cost of US$ 4.35 per km. On a typical short route the ratio of average fare to average cost is 0.92 (based on HCMC - Hue, 540 km for which average cost is estimated as US$ 48.3 per passenger compared to average fare of US$ 44.6, assuming 30% foreigners paying VND 68.6 and the rest paying VND 34.3). Operating loss of Fokker services (mainly short distance domestic services) is 0.08 times US$ 4.35 times 1.8 million km.

Table D.6
Future Inland Water Infrastructure Maintenance Expenditure and Charges
(Excluding expenditure related to ports) US$ million

Item	2000	2010
Central Expenditure		
- VIWA Waterways (a)	3.7	5.9
- Provincial Waterways (b) (c)	5.0 (4.0)	9.2 (7.4)
- Overheads (d)	0.4	0.8
TOTAL	9.1 (8.1)	15.9 (14.1)
Revenue from User Charges		
- Tonnage Fee (e)	0.3	0.3
- Administration Fee (e)	0.1	0.1
- Fuel Levy (f)	7.5	8.6
TOTAL	7.9	9.0

Notes

(a) Assuming following lengths and unit costs:

Item	2000		2010	
	Unimproved	Improved	Unimproved	Improved
Length (km)	2,893.4	160.4	1,098.0	3,053.8
Maintenance Cost (US$/km)	1,200	1,500	1,200	1,500
Total Cost (US$ thousand)	3,472	241	1,318	4,581

(b) Assuming following lengths and unit costs:

Item	2000	2010
Length (km)	4,959.7	9,186.2
Cost (US$/km)	1,000	1,000
Total Cost (US$ thousand)	4,960	9,186

(c) Figures in brackets assume 20% of maintenance cost is paid from local sources

(d) Current VIWA expenditure

(e) For 1999 (actual VIWA figures)

(f) Assuming 300 million litres of diesel consumed in 1997 (ADB Red River Waterway Project, 1998) and 350 million litres estimated in 2000, paying VND 300/litre in fuel levy, and 5% annual growth in inland water traffic 1997 to 2000, then by a factor of 1.15 to 2010 (VITRANSS forecasts).

Table D.7
Future Maritime Infrastructure Maintenance Expenditure and Charges
(Excluding expenditure related to ports)

Case I - Coastal shipping pays same charges as international shipping
Case II - Coastal shipping continues to pay only 8% of international charges

Item	1998	2010	
		Case I	Case II
Current Expenditure (VND billion)			
- Port Authority	23	40 (a)	
Maritime Safety	158	276 (a)	
TOTAL	181	316	
Current Revenue (VND billion)			
- Port Authority	112	205 (b)	155 (c)
- Maritime Safety	165	300 (b)	230 (c)
TOTAL	277	505	385
Traffic Handled (tonnes million)			
- International (d)	41.1	56.0	56.0 (e)
- Coastal Shipping (f)	7.5	19.8	19.8
TOTAL	48.6	75.8	75.8
Coastal Shipping Revenue as % of total (assuming 8% of charge rate)	1%	2.8%	n/a

Notes
(a) Assuming increase of 1.75, which is the expected increase in dredging cost assuming existing cost of US$ 1.4 per cu m for 3 million cu m, and future cost of US$ 2.0 per cu m for 4 million cu m (with adjustment to allow for 5-10% of current costs including capital dredging).
(b) Based on ratio of total traffic (75.8 m tonnes) and present international traffic (41.1 m tonnes (1.83 allowing for coastal shipping revenue).
(c) Assuming coastal shipping only pays 8% of international charges (implying an increase of 1.39 between 1998 and 2010)
(d) for 1997, excluding transit traffic
(e) Average of high and low VITRANSS forecasts
(f) for 1999

APPENDIX E

Ministerial Responsibilities in Various Countries

In Russia in 1996 the MOT was divided into seven major offices, including five modal departments (for roads, road transport, railway, inland water and aviation) and two others (Interdepartmental Coordinating Council on Transport, and the Political Collegium), each headed by a First Deputy Minister. The MOT was responsible for transport policy and coordination for all modes of transport although the Ministry of Railways continued to exercise control over railways.

There were plans to establish four Federal Administrations for Highways (combining roads and road transport), Rivers, Sea and Aviation. Each Administration would be headed by a First Deputy Minister of Transport ex officio, with personal responsibility for each subsector. In practice the MOT was dismembered - railways were never under MOT, aviation and roads were removed, leaving just maritime, inland water and road transport (not roads). There is concern about how to coordinate policy-making, maybe through coordination committees of some sort. There is concern about how to split railway oversight and commercial management.

The remaining functions of the MOT would be

- elaboration of the national transport strategy
- regulation of the activities of the Federal Administrations
- elaboration and implementation of the transport sector development programmes
- drafting laws required in the market economy to enhance the interaction with the domestic industry and science and promote the production of new vehicles and road equipment.

In Kazakhstan in 1996 the roles of the railway and aviation departments were not well defined, the Ministry of Transport and Communication, MOTC, maintained ambiguous relationships with various technical, research and training institutes which are still (in most cases, in monopoly positions) responsible for generating sector information, formulating government policies and implementing programmes in specific areas such as research and training. Partly as a result the MOTC is far too thinly staffed (a little over 100 staff). The railway department had 10 staff (setting general policy, approving plans and tariffs, oversight and coordination of operations, coordination and finance of investment).

It was proposed in 1996 that

- MOTC's role and that of its main departments should be clearly spelled out (formulating government policies, formulation and enforcement of specific transport regulations, and provision of main transport infrastructure) - not supervision of SOEs
- institutes should be split either into independent consulting firms or into government units (the latter merged with MOTC's related departments) - there should be arm's length relationships between resulting consulting firms and MOTC's departments.
- once MOTC's functions are clear, its staffing needs should be assessed and provided for.

In China, the Ministry of Communications oversees road and water transport, not railway or air or pipeline. The MOC places most of its departments under one of three vice ministers:

(A) Logistic; Engineering (including highway design, construction and maintenance); Finance and Accounting (including project disbursements)
(B) Reform; Science and Technology; Education
(C) Policy and Legislation; Transport Administration (including road transport); Foreign Affairs; Safety; Auditing; Others

Other departments report direct to the minister (General Office; Personnel and Labour; Supervisory; Planning Department (including policy coordination))

In Philippines, policy, planning and management of road infrastructure is outside the transport ministry (the Department of Transport and Communications - DOTC) although regulation of road transport services is the responsibility of the transport ministry. Regulation of water and air transport operations is delegated to specialised regulatory organisations, although the ministry remains responsible for setting policy for all modes.

The DOTC is divided into six implementing agencies (regulatory boards and regional offices or councils), five services (administrative/legal, finance/audit, planning, management information and project management) and six support groups (project monitoring, project management, public affairs, public assistance centre, business development, institute). Several regulatory agencies are also attached to DOTC.

Table E.1
Ministerial Responsibilities in Transport –
which planning and regulatory responsibilities are within Ministry of Transport

Country	Road		Railway		Inland Water		Sea		Aviation	
	Infra-structure	Trans-port	Infra-structure	Trans-port	Infra-structure	Trans-port	Infra-structure	Trans-port	Infra-structure	Trans-port
Russia	Yes/No	Yes	No	No	Yes	Yes	Yes	Yes	Yes/No	Yes/No
Kazakhstan	Yes	Yes	Yes	Yes	n/a	n/a	n/a	n/a	Yes	Yes
China	Yes	Yes	No	No	Yes	Yes	Yes	Yes	No	No
Mongolia	Yes	Yes	Yes	Yes	Yes	Yes	n/a	n/a	Yes	Yes
Philippines	No	Yes	Yes?	Yes?	n/a	n/a	Yes	Yes(1)	Yes	Yes(1)

NOTES
(1) For policy purposes, while regulation is delegated to specialised organisations.

APPENDIX F

Training Activities in the Transport Sector

1. Training Needs

In order to determine in a proper way the nature of the training requirements and their magnitude, it is necessary to carry out first a manpower resources analysis. Otherwise, the risk is great that the wrong types of training, training for jobs with low priority or little practical use, may be selected.

MOT has so far conducted no such manpower resources analysis. In addition, the difficulty to get data in terms of the number of staff in each category, their age, level of education, present job positions and locations in MOT and its entities reflects certainly the fact that they are not available in easily usable forms. It represents, and for MOT as well, a major constraint in determining the training and retraining needs in the transport sector.

Based on data provided by the MOT Personnel and Training Department (formerly named Personnel and Labor Relation Department), the following assumptions can be made regarding the structure of the MOT work force and its requirement for training.

The state-managed component of the Vietnam transport sector under MOT employs about 247,000 people: 154,000 are working at central level (central administration, modal administrations (VINAMARINE, VRA, VIWA, VRU), training and research institutions and SOEs reporting directly or indirectly to MOT; the personnel working for VINALINE, VINASHIM, CAAV or VAC is not included. The balance of 93,000 persons are engaged in transport related activities that fall under the control of the country's 61 Provincial and Cities People's Committee, essentially the Provincial Transport Authorities (PTA).

Out of these 247,000, some 48,000 are occupied in activities not directly related to production; in particular, 2,166 people are working in the administration (out of which 1,493 in the local administration), 3,850 in training institutes, 440 in research institutes, 1,800 in health centers, some 14,600 working in different economic assignments and the remaining in other non specified activities. The remaining 199,000 are employed in productive activities: "Engineering & Industries, Infrastructure Construction or Transportation & Handling"

The following table summarizes the structure of the employment in the state-managed component of the Vietnam transport sector.

{PRIVATE }SECTOR OF ACTIVITIES		MOT EMPLOYMENT (NB of employees)		
		CENTRAL	LOCAL	TOTAL
Activities not directly related to production	19%	30,000	18,000	48,000
Engineering & Industry	22.3%	34,000	21,000	55,000
Infrastructure Construction	25.8%	40,000	24,000	64,000
Transport & handling Industry	32.5%	50,000	30,000	80,000
TOTAL	100	154,000	93,000	247,000

Among the MOT staff involved in «productive activities», MOT data give a breakdown by job occupation: 50,000 have management or administrative functions while 149,000 have operational activities with the following breakdown: 6,200 senior and junior engineers, 9,900 graduates from secondary and vocational schools, 43,500 skilled workers of grades 5 to 7, and the remaining 89,400 unskilled workers or workers having received only on-the-job training.

The following table summarizes these data:

FUNCTIONS		CENTRAL	LOCAL	TOTAL
Technical Functions				
Engineers	4.2%	3,900	2,300	6,200
Graduated from Secondary & Vocational School	6.7%	6,200	3,700	9,900
Skilled Workers	29.2%	27,100	16,400	43,500
Others	59.9%	55,800	33,600	89,400
Sub-total	100%	(93,000)	(56,000)	(149,000)
Administration & Management		31,000	19,000	50,000
TOTAL		124,000	75,000	199,000

These figures highlight an important characteristic of the employment structure in MOT which had been noted at that time by the former MOT Labor and Personnel Department regarding the qualification level structure: a comparatively overstaffing of engineers which coexists with shortage of technicians and other skilled workers

Qualification structure	Recommended	Existing Situation
Design Engineers (5 years) & Practicing Engineers (3 years)	1.0	1.0
Technicians graduated from secondary school (2.5 years)	2.3	1.6
Skilled Workers graduated from vocational school (2 years)	10.0	7.5
Technical Workers with short term or on-the-job training	20.0	14.4

There is an urgent need to train skilled workers who are in acute shortage. Similarly, there is also urgency to reconsider the skills taught at the university level and to review the curricula that could lead to marketable skills. There is a growing number of students graduated from the University who have difficulties finding suitable works. It is an indication that the skills taught may not be those which are demanded by the employers.

A common conclusion reached by the modal experts of the VITRANSS project is that there is a great need for initial training, continuing training and re-qualification training of the existing staff if the transport system wants to be in measure of accommodating the transport demands which have been forecasted by the project. A training component has been in fact included under each sub sector in the VITRANSS Final Report.

Training requirements are specific to each transport sub-sector. It means that in order to substantiate and quantify the training components, specific analysis, supported by manpower development experts, must be carried out for each transport sub-sector.

Such an analysis was partially conducted for the road sub sector with the Highway Sector Rehabilitation Project under a funding by the World Bank (Carl Bro report 1996). The project has estimated the needs of training of professional and vocational workers for MOT highways sector and has recommended a program for retraining and improvement.

Based on an estimate of 46,800 people coming from the Ministry itself, the Vietnam Road Administration (VRA) and the Provincial Transport Administrations (PTAs), the Consultant has recommended a program of training for 7,720 people per year which means a yearly retraining of 16% of the work force of the highway sub-sector. A more realistic assumption could have for objective the retraining of half the staff over a period of 5 years.

Number of Staff to be considered for Training in Support and Transport Industry

	Engineering & Industry			Infrastructure/Maintenance Construction			Transport & Handling Industry			Total
	Central	Local	Sub-total	Central	Local	Sub-total	Central	Local	Sub-total	
Executive	272	176	448	320	192	512	400	240	640	1,600
Management	1,632	1,056	2,688	1,920	1,152	3,072	2,400	1,440	3,840	9,600
(Engineers)	(1,054)	(682)	(1736)	(1,240)	(744)	(1,984)	(1,550)	(930)	(2480)	(6,200)
Technicians*	1,700	1,060	2,760	2,000	1,160	3,160	2,500	1,480	3,980	9,900
Skilled workers	7,395	4,785	12,180	8,700	5,220	13,920	10,875	6,525	17,400	43,500
Total	10,999	7,077	18,076	12,940	7,724	20,664	16,175	9,685	25,860	64,600

* Graduated from secondary and vocational training schools.

If similar training targets are applied to the entire sector of transport, excluding however civil aviation and seafarers trainings, the total yearly retraining needs for the sub-sectors of port, road, railways and inland waterways, should range roughly between 1000 and 620 engineers, 1,600-990 technicians and 6,700-4,350 skilled workers. The magnitude of the needs is quite large and the challenge to meet these needs very high.

Program of training for 5 years (Low assumption)

	Engineering & Industry	Infrastructure/Maintenance Construction	Transport & Handling Industry	Total
Engineers	868	992	1,240	3,100
Technicians	1,386	1,584	1,980	4,950
Skilled workers	6,090	6,960	8,700	21,750

2. The Need for Management Training

Training in management is one area where there is, also, an urgent need for professional training. There is the need to develop, throughout the transport sector, a training focused on management and practical operational techniques and serving central, provincial and local authorities as well as state-own-enterprises and private firms in order to carry out cost effective and market oriented transport activities.

The need can be highlighted by making reference to the recent retraining programs, which took place for the high level staff within MOT and the MOT's State Enterprises. According to MOT's Personnel and Training Department, out of the 16 000 people who hold an executive or a senior position and who have a graduate degree for 77% of them, 85 % went through a retraining course in political theory, 42% in economic management, but only 4% have attended a retraining course in administration management. Training in new skills to improve managerial processes and procedures and to carry out effective management decision-making have been so far totally neglected.

The Government has recognized this shortcoming and has recently requested that all officials at state and provincial levels, whether in enterprises or state agencies, increase and improve their skills consistent with the new needs of their job in a market driven economy.

The management training could cover issues (policy, planning and management) common to road, rail, river, urban transport as well as the management of the sea ports, river ports and airports and the different modal fleets (ocean ships and river boats, goods and passengers vehicles).

Such a training should be aimed not only at policy-level officials and senior managers who are obliged to function with more performance-oriented attitudes than in the past but also at middle level managers who need to expand their specialized skills and are engaged in matters such as procurement, marketing, financial analysis, project formulation and evaluation, personnel development, local contracting industries, transport costing and pricing, logistics and physical distribution management.

The number of people working at high management level, policy and decision makers and managers of transport enterprises or who have operational responsibilities at the head of their departments has been estimated by MOT Personnel and Training Department at about 16 000 or 6% of the working force working in the state managed transport sector.

It includes the head of departments and units and the senior officials (1,800), the directors, deputy directors of SOEs (7,400), the managers of operations (3,800), the experts (3,000). Of these, 2, 000 are considered at leadership level and 14 000 at professional and technical level.

MOT Management Staff Structure

	MOT Administration			MOT SOEs			TOTAL
	Central	Local	Sub-total	Central	Local	Sub-total	
Policy makers	296	104	400	1,184	416	1,600	2,000
SOEs managers				5,952	3,648	9,600	9,600
Other Senior Officials	868	532	1,400				1,400
Experts	1,860	1,140	3,000				3,000
TOTAL	3,024	1,776	4,800	7,136	4,064	11,200	16,000

The number of staff who could attend training sessions tailored to these needs is, however, much less than 16 000 since a number of them may not be concerned by new and different management approaches, either because they should retire soon or because they are simply not interested or have no time. On the other hand, new people will be recruited to replace future retirees. Just graduated from the universities or colleges, they will require additional trainings to complete their academic education.

An evaluation of the numbers of people that need to be trained in management was carried out in 1995 by MOT's Personnel and Labor Relation: "At the central level, it includes about 450 people at the leadership or policy/ decision making levels and about 5000 at the management, professional and operation level;. At the local level, an estimated 300 leadership officials and 3 500 management and operational level officials will need to be trained. These estimates take into account present staffing numbers, their levels of responsibilities and the expected rates of attrition due to retirements, resignation and transfers". (Vietnam Institute for Transport Administration and Management Cadres - NEA report 1995).

Training Requirements Estimated by MOT

	MOT Administration			MOT SOEs			TOTAL
	Central	Local	Sub-total	Central	Local	Sub-total	
Policy makers	90	60	150	360	240	600	750
SOEs managers				3,416	2,398	5,814	5,814
Other Senior Officials	504	350	854				854
Experts	1,080	752	1,832				1,832
TOTAL	1,674	1,162	2,836	3,776	2,638	6,414	9,250

If the assumption is made that half of the above staff should be trained within five years, it is 75 state policy makers and decisions makers and 850 MOT officials/ experts and SOEs managers who should be retrained every year as part of a crash program. After a first five year period (2001-2005) a total of respectively 375 state policy makers and decisions makers and 3,750 officials/ experts and SOEs managers could have been trained. The NEA report which had recommended respectively the training of 500 and 2,500 people was over-optimist regarding the availability for training of the policy and decisions makers and had underestimated the importance of the training and the demand for such trainings by officials at management and operational level.

In any case, the needs for training are enough important to justify the establishment of a Transport Sector Management Institute under the aegis of MOT as it was already recommended by the World Bank in its report "Transport Sector - Serving An Economy in Transition" (August 1994). Rightly, the World Bank considered that the development of management capabilities in the transport sector was an essential step to support the economic and social transition process towards a market oriented economy.

Such an institute, covering the management training needs for the whole transport sector, could have an important cross fertilization impact in addition of offering economy of scale in

terms of facilities (library, etc). The institute will be the opportunity for managers coming from different modes of transport to know better their respective activities and to exchange experience. It could stimulate more effective cooperation/competition within the transport sector. In addition, the establishment of the institute could also attract new target groups willing to pay the market price for participation because of the value to their enterprises they perceive in the courses.

3. Funding of the Training Program

The Government of Vietnam has recognized the need and priority for training its officials, managers and operational level staff in the transport sector. Since 1995, the Government of Vietnam has regularly increase the allocated State budget for training activities allocated to MOT. The allocation amounted to VND 54,4 billion in 1999 and has reached in 2000, VND 68,1 billion. The MOT budget earmarked in 1999 for training purpose represents less than 1.3% of the total regular budget of MOT (VND 5,274. billion) in 1999. The funds available for training are well below the overall demands for training, situation, which can be easily understood when so many demands are competing on a limited ministerial budget.

Based on data provided by Table I (List of Schools Offering Training Related to the Transport Sector) and in the Transport Sector) and by Table II (Training Budget Allocated by the Government to the Schools under MOT) included at the end of this appendix, the Government spends some $900 for a student graduated from a technical secondary school (average duration of the studies: 2.5 year) and some $460 for a student graduated from a vocational school (average duration of the studies: 18 months).

Since national funds are extremely limited and insufficient, the Government has encouraged each of the sector to actively seek other sources of revenues for training, including external donor assistance. The use of loans by international agencies for training has been, however, so far refused by the Government. For example, the training component under the World Bank's Highway Rehabilitation Project HRP 1 and HRP 2 and the Asian Development Bank's Road Improvement Projects (RIP 1 and RIP 2) have not been yet committed and disbursed.

Vietnam may want to consider the establishment of a Transport Sector Training Fund on the basis of contribution from the private and public enterprises as well as the training components that donor agencies anticipate to finance.

Such a fund could permit a coordination of all the training efforts and be a tool to ensure that the quality of the programs remains consistent. It could also allow a strong partnership between the public and private sectors for the establishment of a national scheme for skill standards, testing and certification.

Several countries including Malaysia and South Korea have used this form of fund mobilization for some time. Malaysia, for example, has issued a law of Human Resources Development that requires companies who employ 50 and more workers to contribute 1% of their pay roll to the Human Resources Development Fund. For those who have fewer workers employed, the policy of tax deduction is used for cases of training. To show its commitment to this fund and to training, the Malaysian Government agreed to contribute an amount of money equal to the total amount collected by the Fund for the first year and one third of that amount for each of the next three consecutive years.

4. Supply of Training - a Review of Education and Training Facilities

There are several existing institutions, which deliver training directly related to the transport needs. Some are at the level of higher education (tertiary education) and others at the level of secondary / vocational education.

4.1 Tertiary Education

University of Communication and Transport (UCT), established in 1945, was before 1984 under the responsibility of MOT and now is placed under the control of the Ministry of Education. UCT has two branches one in Hanoi (10 000 students enrolled) and one in Ho Chi Minh (5000 students). This faculty graduates after 5 years of study an average of 2 500 students every year (around 1 500 civil construction engineers, 700 mechanical and electricians engineers and 300 transport economists). All students pay monthly tuition fees between VND 80,000 and 150,000 ($6-$11).

MOT has traditionally recruited most of its engineers and economists from UCT. It highlights the importance of UCT in educating and training the future engineer and economist staff of MOT.

The Direction of the University has recognized the need of assistance to improve existing curricula that lead to marketable skills and to introduce new curricula for more transport related and transport specific subjects. The University needs new laboratory equipment as well as textbooks, reference materials, scientific journal subscription for the libraries. It is also mentioned the importance to procure and to provide the teaching body (350 professors and assistants) with refreshing courses abroad to upgrade or update their knowledge and keep the university abreast with technological changes. The Direction of the University would also welcome visiting professors to assist with upgrading of curricula and retraining of teachers and would like to enter into twinning arrangements with reputable centers of transport studies overseas.

Hanoi University of Civil Engineering established in 1966, used to be under the Ministry of Construction and is now placed under the Ministry of Education. Its main function is to educate engineers in construction engineering. An average of 1,500 students are graduated every year. Most students are engaged by the Ministry of Construction.

Vietnam Marine University (VIMARU) - Haiphong

Under the control of VINAMARINE, VIMARU is a specialized university which offers higher education and training not only to deck officers and marine engineers but to all fields of technical specialization related to maritime and shipping industries. The courses meet the requirements of the International Convention on the Standards of Training, Certification and Watchkeeping for Seafarers (STCW), which is designed to improve safety at sea by setting minimum standards of competence in the operation of ships.

The first STCW Convention (1984), which had been ratified by Vietnam, was extensively revised in 1995 and came into effect in 1997. The Convention sets out a detailed program for training including minimum sea time, the syllabi and, by implication, the necessary equipment and facilities to enable the instructions to be carried out.

Vietnam is in the process of upgrading the training facilities of VIMARU in order to meet the new standards. This explains the important increase of the budget allocated in 1999 by Vinamarine (VND 6,0 billions against a regular allocation the previous years of VND 2,0 billions).

Civil Aviation Training Center of Vietnam (CATCV) - Ho Chi Minh

CATCV has not yet the status of university for civil aviation. The Government and the Civil Aviation Administration of Vietnam (CAAV) intends however to make CATVC a tertiary school with the training of pilots as soon as 2001.

Up to now, CATVC has the level of a technical secondary school. The training courses covers air traffic control, communications/operations, electronic maintenance, aircraft maintenance, civil aviation security and flights attendants. "To ensure a continuing supply of trained controller and maintenance technicians, the CATCV facilities should be modernized. The modernization should include provision of a new Air Traffic Control (ATC) procedural trainer, a new ATC radar simulator and a multimedia language laboratory. The Center should have a regular annual budget to enable it to maintain its training standard" (Air Transport Sub-sector Technical Report page 5-16).

"An going project to Develop and Upgrade CATVC" is financed by the French ODA (FF 46 millions or $ 7 million) since June 1999.

The Institute of Training and Enhancing Cadres & States Officials of Transport Sector Transport (ITECSOTS) under the jurisdiction of MOT. It has not the status of university although it addresses training needs of the cadres and states officials of the transport sector.

Each sectoral ministry has a similar training institute required by the state training system related with promotion and recruitment of civil servants and professionals. There is also the National Institute for Public Administration (NIPA), under the jurisdiction of the Prime Minister, which offers management training courses for policy and decision makers but with no content specific to transport.

The main tasks and duties of ITECSOTS include the "training and refreshing: enhancing the skills of state officials and staff in the transport sector". It means essentially training " in political theory" and "state administration knowledge" which are necessary for future high and mid ranking civil servants, Party and trade unions cadres within MOT

ITECSOTS delivers also some training in transport economics and business administration taking into account the new economic orientation on market mechanisms as well as English teaching, the Prime Minister having issued a Decree requesting that all state officials must learn English as a prerequisite to further career promotion and development.

In 20 years, the Center has delivered 344 courses and has received nearly 13,000 state civil servants belonging to the transport sector.

A study carried out in 1995 and financed by Netherlands had recommended using and strengthening ITECSOTS for "improving and enhancing the management performance of the participants in relation to their transport specific responsibilities to their work place". (NEA report June 1995)

Following the conclusions of the MOT Discussion panel, it was recommended that such a center should provide training in priority to "(a) senior officials at the policy and decision making levels; (b) senior policy analysts, project analysts, modal planners and statisticians; and (c) upper level managers in the transport operating enterprises and in MOT's own internal operations".

The NEA study had estimated at $6,0 million, over a period of five years, the cost of the Development Strategy and Action Plan for ITECSOTS.

4.2 Technical Secondary and Vocational Training Schools

After the high school, Vietnamese students can enter a secondary school (studies duration 2-3 years) or a vocational school (studies duration: 9 months to 18 months).

In the transport sector, there are technical secondary schools, under MOT and vocational training schools for specific skills and specialized by transport sub-sectors, generally under a modal administration or a SOE.

The list of these schools is given at the end of this Appendix.

According to Vietnamese sources, these schools do not meet the existing demand for trained staff in quantity as well as in quantity. The fact is that there is an acute shortage of workers with more than basic education and with relevant skills such as supervisors, foreman, equipment operators, electricians, mechanics, accountants etc.

All these schools face some common problems, which can be listed as following:

- inappropriate training;
- little training planning and programming;
- absence of trained trainers;
- demotivated trainers;
- inadequate facilities and equipment;
- little systematic course evaluation;
- inadequate evaluation of training results.
- insufficient funding

The consensus is that technical and vocational training will continue to be inadequate unless major changes are made in improving physical facilities, quality of instructors, course content, and incentives systems for well-qualified and experienced training personnel.

The specific measures for upgrading the quality of the teaching, up-dating the curricula, providing modern teaching aids can only be addressed mode by mode and school by school as it is carried out under the Upgrading of Inland Waterways schools project supported by Netherlands or as it was partly covered under the MOT highway Sector Retraining and Improvement Programs (Carl Bro International 1996).

Some general recommendations, however, can be made to MOT in order to increase the quality and motivation of these vocational training centers, which provide an in-house training:

(i) increased incentives to attract trainers, especially important when general wage levels are low and others are able to supplement their incomes by other activities;
(ii) provision of better training materials including modern teaching aids (hardware and software) , and where necessary better buildings;
(iii) integration of training assignments into career patterns of staff, rather than sidelining staff into training institutes;
(iv) providing trainers with training in teaching, opportunity for periodic updating of technical skills and establishing a career structure.
(v) improving procedures for monitoring and modifying courses contents to meet the changing requirements within each mode of transport;
(vi) improving procedures for evaluating of training output and linkage with on-the-job training.
(vii) increasing the budget allocated to training.

I. LIST OF SCHOOLS IN THE TRANSPORT SECTOR

A. TERTIARY SCHOOLS

Name of School {PRIVATE }	Location	Specialty Area
1. University of Communication and Transport (UCT) (Ministry of Training & Education)	Hanoi with branch in HCMC	Civil Engineering ,Mechanical & Electrical Engineering , Transportation Economics, Post Graduate Studies
2. The Hanoi University of Civil Engineering (Ministry of Training & Education)	Hanoi	Architecture ,construction engineering (civil engineering: highways and Bridge, hydraulic, port and waterways engineering, offshore engineering
3. Vietnam Maritime University (VIMARU) (VINAMARINE)	Hai Phong with branch in HCM	Deck officers, marine engineers , technical specialization related to maritime and shipping industries. based on the STCW Convention Standards of Training, Certification and Watchkeeping for Seafarers
4. Civil Aviation Training Center (CATCV) (CAAV)	Ho Chi Minh City	Plan to upgrade the Center with an in-house training program for pilot by 2002
Other high level training institutes		
5. Institute of Training Cadres & State officials (MOT)	Hanoi	State administration knowledge & program in political theory/ Transport economics, business administration
6. National Institute For Public Administration (Prime Minister Office)	Hanoi	General policy and management courses

B. TECHNICAL SECONDARY SCHOOLS

{PRIVATE }NAME OF SCHOOL	LOCATION	Students Graduated / Year	TRAINING AREA
Under MOT			
7. Transport Secondary School Region 1	Hanoi	645	Construction of roads, railways, bridges - repair of motor vehicles and construction equipment
8. Transport Secondary School Region 2	Da nang	466	Construction of roads, railways, bridges - repair of motor vehicles and construction equipment, accountancy
9. Transport Secondary School Region 3	HCMC	368	Construction of roads, railways, bridges - repair of motor vehicles and construction equipment, accountancy
Under VINAMARINE (MOT)			
10. Maritime School No1 (Technical secondary courses)	Haiphong	250	Vessel pilotage, vessel engine mechanics, electric and electronic circuit training
11. Maritime School No 2 (Technical secondary courses)	HCMC	250	Vessel pilotage, vessel engine mechanics, electric and electronic circuit training
Under Civil Aviation Administration of Vietnam (CAAV)			
12. Civil Aviation Training Center (CATCV)	Ho Chi minh		Air traffic control, communications/ operations, electronic maintenance, aircraft maintenance, civil aviation security and flights attendants

C. TRAINING VOCATIONAL SCHOOLS

{PRIVATE }NAME OF SCHOOL	LOCATION	Students Graduated / Year	SPECIALITY AREA
Under VINAMARINE (MOT)			
10. Maritime School No1 (vocational training courses)	Haiphong	520	Vessel engine mechanics, electric and electronic maintenance
11. Maritime School No 2 (vocational training courses)	HCMC	180	Vessel engine mechanics, electric and electronic maintenance
Under MOT			
13. Transport Professional & Vocational School No1	Ha Tay	484	Bridge workers, auto mechanics, steel workers, concrete workers, equipment operators
14. Transport Professional & Vocational School No 2	Hai Phong	291	Bridge workers, auto mechanics, steel workers, concrete workers, equipment operators
15. Transport Professional & Vocational School no 3	Ho hi Minh,	600	Operation of road earthwork and road pavement machines, bridge assembly, concrete structure
16. Transport Professional & Technical School in Mekong River Delta	Can Tho	110	Equipment operators, equipment mechanics,
17. Drivers Training School	Hai Duong	240	Drivers for road construction equipment and vehicles
18. Road professional & Technical School in the North	Hanoi	350	Road construction & road maintenance workers, equipment operators
19. Road professional & Technical School in the Central region	Nghe An	360	Bridge workers, auto mechanics, steel workers, equipment operators
20. Road professional & Technical School in the South	Can Tho	113	Bridge and road workers, equipment workers
Under Vietnam Inland Waterways Bureau			
21. Navigation Professional Technical School No1	Hai Duong	250	Ship steering (navigation), vessel engine mechanics, steel hull and port equipment repairing
22. Navigation Professional Technical School No 2	HCMC	225	
23. Inland Technical Workers School	Haiphong	140	Waterway survey and maintenance, dredging operating methods
Under Vietnam Railways Union (VRU)			
24. Vietnam Railways No1	Na Lam (Hanoi)	630	Maintenance of rail track & turnouts
25 Vietnam Railways No 2	Binh Duong	600	Rolling stock and locomotive maintenance and repairs, locomotive drivers
TOTAL STUDENTS (technical & vocational)		**4,393**	
SCHOOLS FINANCED BY SOEs			
26. Cienco 1 Vocational School Soc Son	Hanoi	350	Bridge workers, masons, concrete workers, steel workers, toad equipment operators, equipment mechanics
27. Cienco 8 Technical Training Center	Hanoi	230	
28. Thang Long Bridge Construction Corporation Vocational School	Hanoi	150	

II. TRAINING BUDGET ALLOCATED BY THE GOVERNMENT TO MOT IN 2000
(in VND millions)

NAME OF THE SCHOOL{PRIVATE }	LOCATION	ALLOCATION			
		Regular Budget	Building Repair	Equipment purchase	Total
TERTIARY SCHOOLS					
3. Vietnam Maritime University (VIMARU)	Hai Phong	11,078		3,500	12, 078
3. Vietnam Maritime University (VIMARU)	HCMC	3,554		300	3,854
4. Institute of Training Cadres & State officials	Hanoi	700	300	900	1,900
SECONDARY SCHOOLS					
7. Transport Secondary School Region 1	Hanoi	8,890	200	1,300	10,390
8. Transport Secondary School Region 2	Da nang	4,003	150	600	4,753
9. Transport Secondary School Region 3	HCMC	3,185	150	500	3,835
10. Maritime School No1	Haiphong	2,000			2,000
11. Maritime School No 2	HCMC	2,000			2,000
Total Secondary Schools		**20,078**	**500**	**2,400**	**22,978**
VOCATIONAL SCHOOLS					
13. Transport Professional & Vocational School No1	Ha Tay	2,795	450		3,245
14. Transport Professional & Vocational School No 2	Hai Phong	2430	300	300	3030
15. Transport Professional & Vocational School No 3	Ho Chi Minh	3,624	300	300	4224
16. Transport Professional & Technical School in Mekong River Delta	Can Tho	1522	300	400	2222
17. Drivers Training School	Hai Duong	1508	-	200	1708
18. Road professional & Technical School in the North	Hanoi	2437		300	2737
19. Road professional & Technical School in the Central region	Nge An	2430			2430
20. Road professional & Technical School in the South	Can Tho	1172		300	1472
21. Navigation Professional Technical School No1	Hai Duong	1702	250		1952
22 Navigation Professional Technical School No 2	HCMC	1643		150	1793
23. Inland Technical Workers School	Haiphong	924		300	1224
24. Vietnam Railways No1	Na Lam Hanoi	500	300	500	1300
25. Vietnam Railways No 2	Binh Duong	303	300	300	903
Total Vocational Schools		**38,340**	**2,500**	**4,250**	**45,090**
TOTAL MOT FUNDING		**58,418**	**3,000**	**6,650**	**68,068**
Financed by SOEs					
28. Cienco 1 Vocational School Soc Son	Hanoi				2,000
29. Cienco 8 Vocational School	Hanoi				n.a
30. Thang Long Bridge Construction Corporation Vocational School	Hanoi				n.a

APPENDIX G

Institutional Recommendation for VRA

SOURCE: ND LEA's INSTITUTIONAL STRENGTHENING OF THE VIETNAM MINISTRY OF TRANSPORT, 1996

The following tables describe the present status of implementation of the recommendations of the MOT institutional strengthening project.

Table G.1
Infrastructure Management Aspects

Proposals	Accepted? F = Fully P = Partly O = Not Accepted	Implemented? F = Fully P = Partly O = Not Started	Please Specify Main Actions Which Have Been Implemented
1. Responsibilities of VRA			
• The MOT should approve a revised regulation on the organization and activities of VRA which defines its administrative responsibilities in planning, investment planning, finance and accounting, organization of labor, legislation, international relations, commercial traffic, traffic and road safety, road traffic management, science and technology, and inspection.		P	Regulation on planning, investment plan, finance and accounting, labor-personnel and road traffic safety
• The VRA should establish a Construction Management Office reporting to the road infrastructure management to institutionalize the tendering and contract award system in road traffic (including the procedures adopted by PMUs so that these units can be placed under VRA control).	O	O	PMU of the VRA is in charge of this work excluding infrastructure done by traffic board
• The VRA should develop PMUs in accordance with overall road traffic objectives rather than functional objectives.		F	PMU is established by every specific project
• The VRA should establish a Design Development Section (DDS) to develop and approve design standards and processes for the design of road infrastructure.			The VRA hires TEDI to formulate engineering standards as well as engineering process of road infrastructure
• The VRA should delegate routine contract processes to the Construction Management Office to free senior management time.		F	The PMU of the Administration makes construction procedures
• The VRA should eventually delegate all contract supervision to RRMUs of all national roads.		F	RRMUs monitor routine repair and medium repair
• The VRA should eventually delegate other functions to RRMUs such as monitoring contract supervision by PTAs for provincial roads (and resolve any noncompliance by PTAs through the People's Committee and the VRA Chairman), developing and communicating management processes to be followed in construction projects (allowing PMUs to be replaced by RRMUs).			RRMUs do not have right to intervene the works of PTAs concerning plan and planning as well as management.

Table G.1
Infrastructure Management Aspects

Proposals	Accepted? F = Fully P = Partly O = Not Accepted	Implemented? F = Fully P = Partly O = Not Started	Please Specify Main Actions Which Have Been Implemented
2. Policy Formulation			
• MOT should establish a high level Policy Committee, chaired by the minister, with representatives from the modal agencies and a spokesperson from the provinces to develop traffic policy		O	Not necessary
• VRA should assign responsibility for documenting program status and future prospects to its policy/programming unit		F	Statistic and information center is responsible for providing the data on present status of the program and future prospect for building program/policy
3. Planning			
• MOT should appoint VRA as responsible for road investment and planning		F	The Administration has already built a Road Traffic Development Planning by 2020 and submitted to the MOT
• MOT seeks technical assistance to help VRA assume these responsibilities		P	The MOT finances and the TDSI assists in technical aspects
4. Guidance of Infrastructure Management			
• Science and Technology Department of VRA should form the core of a design and development section, and be assigned the task of developing road sub sector technical standards		P	Science and Technology Department of the VRA is in charge of engineering and appraising the outline for inspecting requirements
• the Traffic Department of VRA should form the core of the operations and maintenance group in head office, and should develop skills to update and/or create economic-based road planning and work methods for use by the regions		P	Road Traffic Management Road takes responsibilities for managing repair and maintenance works and combines with planning-investment department for formulation of road traffic development planning.
• all departments must produce management documents that illustrate the procedures to implement their products (e.g. contract tendering guidelines and standards of axle load limits)		F	All the departments of the VRA have to submit documents to the leaders of VRA for approval
5. Control of Infrastructure Management			
• VRA should exercise a high level of control for all activities related to network planning in the whole country and the development and operation of the national road system		F	The VRA is responsible for building development planning as well as managing and inspecting them
• VRA should have a medium level of control for the planning and development of the provincial roads		P	Medium level of control is assigned to provinces
• VRA should have a low level of control over all other road networks		O	Low level of control is assigned to the VR to manage it
6. Execution and Implementation			
• VRA must decide what it wants to deliver itself rather than delegate to others under its control		P	Provincial traffic planning has been decentralized to PTA

Source: ND Lea's Institutional Strengthening Of The Vietnam Ministry Of Traffic, 1996
The VRA has completed these forms to indicate their views on the recommendations.

Table G.2
Road Traffic and Safety Aspects

Recommendations	Accepted? F = Fully P = Partly O = Not Accepted	Implemented? F = Fully P = Partly O = Not Started	Please Specify Main Actions Which Have Been Implemented
1. Information Management			
• The VRA to undertake a detailed study of management information needs		P	Studies on traffic information, vehicle and traffic safety
• The VRA to delegate signing of driving licence form to subordinate officials		F	Signing of driving license form has been decentralized to PTAs and ministerial-level centers
• The VRA to establish Road Traffic Department as focal point for driver and vehicle information collection		P	Traffic department of the VRA is responsible for collecting information sent by SOEs
2. Driver Training and Examination			
• The MOT and Ministry of Education to review driver training curricula		F	Textbook and regulation for driver training have been issued
• Driver training is not mandatory before examination		F	Regulation on driver examination has been issued
• Privatize driver training		P	Privatizing driver training has been implemented in HCMC
3. Vehicle Registration Program			
• The VRA to continue close cooperation with Traffic Police Bureau		F	The VRA keeps on coordinating with Traffic Police Bureau in traffic safety and vehicle management
• The VRA to continue with present vehicle licensing program		P	Construction machines supplied by the MOT
• The MOT and VRA to introduce automated data capture of vehicle information		P	Computerization
4. Mandatory Vehicle Inspection Program			
• Maintain the current universal inspection program		F	Universal inspection program on overloaded, overweighed and oversized vehicle as well as traffic safety
• Privatise the vehicle inspection program	O		
• No longer establish public enterprises whose only function is to perform mandatory inspections		F	Public benefit enterprises are established from RRMUs
• License private repair stations to perform mandatory inspections, while still providing repair services	O	F	These stations do not have right to inspect and detain vehicle
• License public repair stations to perform mandatory inspections, while still providing repair services		F	Right
• Allow free choice by vehicle owners of mandatory inspection service	O		Vehicle owners are free to choose mandatory inspection service in accordance with regulation
5. Infrastructure Design and Geometric			
• The VRA to update geometric design standard to reflect changes in vehicle size and weight		F	The VRA manages dimension of newly built vehicle
• The VRA to develop geometric standards for intersection design		P	The VRA participate in developing geometric standards for intersection design

Table G.2
Road Traffic and Safety Aspects

Recommendations	Accepted? F = Fully P = Partly O = Not Accepted	Implemented? F = Fully P = Partly O = Not Started	Please Specify Main Actions Which Have Been Implemented
• Geometric design standards to be based on the functional classification of roads			The VRA participate in developing geometric design standard based on the functional classification of road
6. Vehicle Safety Programs			
•Increase authority of highway inspectors to stop vehicles and enforce size and weight regulations		F	The VRA is in charge of handling overweighed and oversized vehicle
• Base vehicle weight regulations on axle weights and introduce equipment at weigh stations to weigh axle groups		F	The VRA has examined vehicle weight
•Introduce portable scale enforcement units		P	Under implementation
• Introduce cursory safety inspection at weigh stations		F	Cursory safety inspection at weight station is introduced for all types of vehicle
7. Traffic Safety Programs			
•Update manuals and educational material		P	The VRA is studying a draft management system on traffic safety
•The VRA to concentrate resources on improving traffic safety skills			
8. Public Education On Safety			
• Traffic Safety Department to coordinate with the Ministry of Education to produce quality public information materials on road safety		P	Traffic Department of the VRA coordinates with the Ministry of Education to propose nationwide teaching program concerning traffic safety
• Strengthen capacity of Traffic Safety Department		P	Traffic Safety Department coordinates with the Ministry of police to assign the duties of traffic safety
9. Safety Information Systems			
•Traffic Safety Department receives adequate information to report to the VRA Chairman on effectiveness of road safety programs		P	Traffic Safety Department is responsible for yearly, quarterly and monthly reports
• Develop computerized traffic accident reporting system in VRA		P	The centers of the VRA will be computerized.

Source: ND Lea's Institutional Strengthening Of The Vietnam Ministry Of Traffic, 1996
The VRA has completed these forms to indicate their views on the recommendations.

APPENDIX H

Financial Projections for VR - a simple example

1. Introduction

This annex contains the results of a simple analysis of Vietnam Railway costs in order to illustrate possible implications of implementing the master plan recommendations by 2010.

Existing financial data on railway costs, for 1997, are not in sufficient detail to enable an accurate analysis to be made of present freight and passenger costs, and how infrastructure and other joint costs could be allocated to each of these two businesses. Estimating future costs can also only be roughly estimated because of uncertainties about future demand and the institutional capacity of the railway to meet that demand.

Nevertheless the analysis can indicate the kind of financial issues that will arise from implementing the master plan and the sensitivity of the results to the main assumptions.

2. Main Assumptions

The current analysis makes the following basic assumptions:

(1) Traffic grows in accordance with demand as forecast by the master plan, to about four times its current level in 2010,

(2) Operating costs increase by various factors as described in VITRANSS Technical Report No. 3 - staff costs increase with GDP (assuming staff numbers remain the same but wages double over the next ten years), energy costs increase in proportion to traffic, equipment maintenance costs increase at half the rate of increase in traffic (reflecting technology improvements and replacing old with new equipment). Depreciation and interest costs are estimated based on expected investment over the next ten years.

Due to the assumed adjustments, operating costs per traffic unit are estimated to increase by 27% between 1998 and 2010, as shown in Table H-1. Much of the increase is due to the increase in depreciation and interest charges - at present these are very low because such old equipment is in use.

(3) Infrastructure maintenance costs are assumed to increase at half the rate of increase in traffic (reflecting technology improvements and replacing old with new equipment). Depreciation and interest costs are estimated based on expected investment over the next ten years.

The future infrastructure costs are estimated to rise to about six times the present level (of VND 297 billion), as shown in Table H-3. Most of the increase is attributable to depreciation and interest payments (assuming that the infrastructure is managed on a commercial basis, paying for capital on the same basis as any other self-financing transport business such as ports).

(4) Current operating costs of VR are divided between passenger and freight in proportion to the revenue earned (as assumed in Technical Report No. 6) on the assumption that current charges for passenger and freight roughly cover the same proportion of operating costs.

(5) Future infrastructure costs are allocated to passenger and freight costs in proportion to the traffic units (passenger kms and tonne kms) carried by each section of track. In practice the allocation would be based on assigning the costs of specific parts of the infrastructure to each type of business - passenger stations to passenger services, freight yards to freight services, and much of the shared track infrastructure could be apportioned on the basis of the number of trains operated. As a first approximation, division based on traffic units is reasonable for VR. For example a typical future VR freight train is expected to have a load of 500 units (tonnes) and a typical passenger train is expected to have a load of 400 units (passengers); that is each type of train involves a similar number of traffic units. Furthermore the passenger and freight densities are forecast to be significant over the whole of the network, except for some minor freight-only branch lines.

The financial outcome is assessed from both the railway's point of view and from the government's point of view, assuming that the railway pays to government, for provision of infrastructure, a certain proportion of revenue from passenger and freight services. Three future options are considered:
Option I - railway pays 10% of revenue to government,
Option II - railway pays 20% of revenue to government,
Option III - railway pays 30% of revenue to government.

In each case it is assumed that the railway adjusts passenger fares to cover passenger operating costs plus the margin paid to government, and does the same for freight services. No elasticity effects are included in this simple analysis so a 10% rise in tariffs is assumed to result in a 10% rise in revenue, whereas in practice the increase in revenue would be less (probably much less in some cases) due to passengers/customers choosing other modes or even not traveling/using transport.

3. Results

The results of this analysis are shown in Table H-3 for the existing tariffs and for the three future options.

(a) If tariffs remain the same, revenue fails to cover even the operating costs so the railway would be unable to pay anything towards infrastructure. The government payment towards infrastructure increases almost ten times from the present VND 185 billion to VND 1,754 billion.

(b) If, under Option I, the railway has to pay 10% of revenue towards infrastructure then, under the simple assumptions made in the analysis, average freight tariffs are projected to rise from VND 279 to VND 390 per tonne km to cover freight operating costs, while passenger fares are projected to increase from VND 222 to VND 230 per passenger km. Government would still be paying VND 1,325 billion for infrastructure support.

(c) Under Options II and III the figures would be as follows:

	Present	Option I	Option II	Option III
Freight Tariff (VND/tonne km)	279	390	440	500
Passenger Fare (VND/km)	222	230	250	290
Government Subsidy (VND billion)	185	1,325	802	117

With tariffs raised a further 10% under Option II to pay 20% of revenue for infrastructure the government subsidy would fall to VND 802 billion, four times higher than at present but roughly the same per traffic unit because of the higher traffic assumed to be carried. Under Option III, raising the railway contribution to 30% would enable government subsidy to fall substantially.

However in practice raising the tariffs by such as margin would reduce traffic, especially for freight, whose average tariffs would be 60% higher than at present under Option II. Therefore the subsidy would not fall as much as estimated here.

4. Sensitivity Tests

In order to assess the effect of alternative assumptions, the following calculations were made:

(a) the railway managed to reduce operating costs by about 10% (for example by obtaining rolling stock cheaper (up to say 20%), reducing staff or increasing efficiency)

(b) no interest charges paid on infrastructure investment (if government decided to forgo the cost of capital used in railway infrastructure)

(c) 50% less freight and passenger traffic (possibly if the railway cannot improve level of service and if increasing tariffs deter customers) - for this assumption, the operating cost is assumed to remain the same due to reducing services by 50%, but infrastructure is assumed to be improved in the same way.

The results are shown in the following table (all for Option II):

	Base	Lower Operating Cost	No Interest Charges for Infrastructure	Less Traffic (50%)
Freight Tariff (VND/tonne km)	440	390	440	440
Passenger Fare (VND/km)	250	230	250	250
Government Subsidy (VND billion)	802	1,325	0	1,278

These calculations show how sensitive the assumptions are to these particular assumptions. The government subsidy nominally falls to zero if interest payments are ignored, but there is no real saving to government because it would be losing the benefits gained from the same investment elsewhere in the economy.

Lower operating costs ironically cause a large increase in subsidy, due to the lower assumed revenues earned by the railway. In the former case there would be an argument for raising the railway's contribution for infrastructure, but this could only be achieved by increasing tariffs, and the railway might consider it unfair that it should be penalised by having to raise tariffs simply because it has managed to increase efficiency. This problem can be reduced by basing the infrastructure payment not so much on revenue, but on a combination of fixed charge and a variable element proportional to revenue. This would also reflect the reality that most infrastructure costs are fixed.

The substantial increase in subsidy required if traffic carried is only 50% of that assumed in the master plan, means that future investment in infrastructure must take account of the ability of the railway to carry increased traffic.

Table:H-1 Estimation of Future Operating Costs of Railway

Traffic	**1998**	**2010**	**(% increase)**
Traffic Units (TU) (million)	3,863	15,452	
Operating Cost (VND billion)			
Staff	200	370	
Social Insurance	20	40	
Materials	140	280	
Fuel/Electricity	150	600	
Major Repairs	60	120	
Depreciation	120	941	
Interest	0	1415	
Other	120	340	
TOTAL	810	4106	
Average Cost (per TU)	210	266	27%

NOTE (1) Assuming costs and traffic as provisionally projected in Technical Report No. 6 except with depreciation over 30 years based on actual master plan rolling stock/CTC investment of US$ 2.0 billion (VND 28,300 billion) and annual interest estimated at 10% of capital invested)

Table:H-2 Estimation of Future Infrastructure Costs of Railway (2010) (VND Billion)

	Amount
Infrastructure Cost	
-Maintenance	629
-Depreciation	321
-Interest	804
TOTAL	1,754

NOTE

(1) Amount invested = 16,072 (VND billion)
which is US$ 1,148 million (2000-2010)
(2) Assuming straight line depreciation over 50 years
with average interest rate of 10%

Table:H-3 Financial Performance of Railway in 2010

Forecast Traffic (including intra-provincial traffic)

Freight (million tonne km)	6,102
Passenger (million pass km)	8,304

		Future Pricing Options			
		Present Charges	Option I	Option II	Option III
Assuming Average Freight Tariff (VND per tonne km)		279	390	440	500
Assuming Average Passenger Fare (VND per pass km)		222	230	250	290
Passenger and Freight Revenue and Cost (VND Billion)					
Revenue		3,546	4,290	4,761	5,459
Operating Cost					
-before contribution to infrastructure		3,796	3,796	3,796	3,796
-after contribution to infrastructure at	10%	4,151	4,225	4,273	4,342
	20%	4,506	4,654	4,749	4,888
	30%	4,860	5,083	5,225	5,434
Infrastructure Cost					
-total cost		1,754	1,754	1,754	1,754
-minus contribution from operations at	10%	1,400	1,325	1,278	1,208
	20%	1,045	896	802	663
	30%	691	467	326	117

NOTE (1) Each option assumes that VR sets fares and tariffs to cover operating costs plus
Option I : 10% towards infrastructure costs
Option 2 : 20% towards infrastructure costs
Option 3 : 30% towards infrastructure costs
(2) Assuming that future freight and passenger operating costs are
VND 350 per tonne km
VND 200 per tonne km
(based on projections made in Technical Report No. 6 and division of current freight and passenger costs in proportion to revenue as assumed in Technical Report No.3)
(3) Assuming infrastructure costs as assumed in Technical Report No.6 plus annual interest payments at 10% of capital invested

Table:H-4 Financial Performance of Railway in 2010 (Lower Operating Costs)

Forecast Traffic (including intra-provincial traffic)

Freight (million tonne km)	6,102
Passenger (million pass km)	8,304

		Future Pricing Options			
		Present Charges	Option I	Option II	Option III
Assuming Average Freight Tariff (VND per tonne km)		279	350	390	450
Assuming Average Passenger Fare (VND per pass km)		222	200	230	260
Passenger and Freight Revenue and Cost (VND Billion)					
Revenue		3,546	3,796	4,290	4,905
Operating Cost					
-before contribution to infrastructure		3,386	3,386	3,386	3,386
-after contribution to infrastructure at	10%	3,741	3,766	3,815	3,877
	20%	4,095	4,146	4,244	4,367
	30%	4,450	4,525	4,673	4,858
Infrastructure Cost					
-total cost		1,754	1,754	1,754	1,754
-minus contribution from operations at	10%	1,400	1,375	1,325	1,264
	20%	1,045	995	896	773
	30%	691	615	467	283

NOTE (1) Each option assumes that VR sets fares and tariffs to cover operating costs plus
Option I : 10% towards infrastructure costs
Option 2 : 20% towards infrastructure costs
Option 3 : 30% towards infrastructure costs
(2) Assuming that future freight and passenger operating costs are
VND 310 per tonne km
VND 180 per tonne km
(based on projections made in Technical Report No. 6 and division of current freight and passenger costs in proportion to revenue as assumed in Technical Report No.3 minus 20% of depreciation and interest costs of rolling stock)
(3) Assuming infrastructure costs as assumed in Technical Report No.6 plus annual interest payments at 10% of capital invested

Table:H-5 Financial Performance of Railway in 2010 (No Infrastructure Interest Payments)

Forecast Traffic (including intra-provincial traffic)

Freight (million tonne km)	6,102
Passenger (million pass km)	8,304

		Future Pricing Options			
		Present Charges	Option I	Option II	Option III
Assuming Average Freight Tariff (VND per tonne km)		279	390	440	500
Assuming Average Passenger Fare (VND per pass km)		222	230	250	290
Passenger and Freight Revenue and Cost (VND Billion)					
Revenue		3,546	4,290	4,761	5,459
Operating Cost					
-before contribution to infrastructure		3,796	3,796	3,796	3,796
-after contribution to infrastructure at	10%	4,151	4,225	4,273	4,342
	20%	4,506	4,654	4,749	4,888
	30%	4,860	5,083	5,225	5,434
Infrastructure Cost					
-total cost		951	951	951	951
-minus contribution from operations at	10%	596	522	475	405
	20%	242	93	(1)	(141)
	30%	(113)	(336)	(477)	(687)

NOTE (1) Each option assumes that VR sets fares and tariffs to cover operating costs plus
Option I : 10% towards infrastructure costs
Option 2 : 20% towards infrastructure costs
Option 3 : 30% towards infrastructure costs
(2) Assuming that future freight and passenger operating costs are
VND 350 per tonne km
VND 200 per tonne km
(based on projections made in Technical Report No. 6 and division of current freight and passenger costs in proportion to revenue as assumed in Technical Report No.3)
(3) Assuming infrastructure costs as assumed in Technical Report No.6 plus annual interest payments at 0% of capital invested

Table:H-6 Financial Performance of Railway in 2010 (50% less traffic)

Forecast Traffic (including intra-provincial traffic)

Freight (million tonne km)	3,051
Passenger (million pass km)	4,152

		Future Pricing Options			
		Present Charges	Option I	Option II	Option III
Assuming Average Freight Tariff (VND per tonne km)		279	390	440	500
Assuming Average Passenger Fare (VND per pass km)		222	230	250	290
Passenger and Freight Revenue and Cost (VND Billion)					
Revenue		1,773	2,145	2,380	2,730
Operating Cost					
-before contribution to infrastructure		1,898	1,898	1,898	1,898
-after contribution to infrastructure at	10%	2,076	2,113	2,136	2,171
	20%	2,253	2,327	2,374	2,444
	30%	2,430	2,542	2,612	2,717
Infrastructure Cost					
-total cost		1,754	1,754	1,754	1,754
-minus contribution from operations at	10%	1,577	1,540	1,516	1,481
	20%	1,400	1,325	1,278	1,208
	30%	1,222	1,111	1,040	935

NOTE (1) Each option assumes that VR sets fares and tariffs to cover operating costs plus
Option I : 10% towards infrastructure costs
Option 2 : 20% towards infrastructure costs
Option 3 : 30% towards infrastructure costs
(2) Assuming that future freight and passenger operating costs are
VND 350 per tonne km
VND 200 per tonne km
(based on projections made in Technical Report No. 6 and division of current freight and passenger costs in proportion to revenue as assumed in Technical Report No. 3)
(3) Assuming infrastructure costs as assumed in Technical Report No. 6 plus annual interest payments at 10% of capital invested

APPENDIX I

Leasing Options in Port Management

One specific possibility, currently being considered by VINAMARINE and the government, would be for government to manage infrastructure and rent it to other enterprises for operation.

This landlord function of government could be used in at least two distinct circumstances:

(a) where the government wants one or more terminal operators to invest in major developments within an existing port and wishes to keep ownership rights of the substructure. In this case the government can rent or lease out the existing facilities for development.
(b) where the government wants to separate management and operation of existing ports, keeping existing management to operate the ports, in order for government to keep full control over infrastructure finance and/or management.

In case (a) such an option should be considered along with other options for public/private partnerships such as outright sale of facilities, joint venture arrangements, etc. This approach has proved to be very successful in large ports in Thailand and other countries, where the government provides the substructure and invites private operators to lease parts of the port and invest in superstructure (handling equipment, storage etc.). Because of the difficulties of selling state assets, including land, the land-lord approach appears to have many advantages in attracting foreign investment into ports in Vietnam.

In case (b) separation within existing ports, without necessarily introducing new port managers into the ports, may enable port management to be commercialized and equitized more easily, by keeping most assets in state hands. It gives government continued tight control over investment in infrastructure. However it would remove some of the commercial freedom given to port enterprises, to reinvest using profits and other sources - this goes against the world-wide trend towards giving ports commercial autonomy. In terms of financing aspects of case (b), renting and leasing are among several options for financing government investment in ports, along with others such as making capital charges to ports (the present arrangement), renting or franchising the facilities.

Whatever the method of management, the objectives remain the same:
- to give incentives for port efficiency and service,
- to safeguard government investment.

There is no obvious advantage in government keeping responsibility for maintenance of port infrastructure. Rather there are disadvantages (mixing commercial and regulatory functions, limiting extent to which maintenance can be commercialized). The main financial advantage of the lease/rental approach is to allow more financing options - the port operator can either be charged on the basis of commercial interest rates or on the basis of the earnings potential of the facility under management (which could be more or less, depending on the profitability of the port). Leasing and renting allow the government to smooth out the capital charges, making it easier for the port to make payments. However under competitive conditions where profits are just sufficient to cover investment plus a margin for other purposes (risk, management and staff incentives etc.), there should be relatively little overall difference in financing charges. Perhaps of more importance is the possible effect of the financing method on management incentives - basing infrastructure charges on potential earnings raises the

question of whether the charge should be fixed or whether it should vary with revenue. The latter approach tends to reduce incentives because management earns less from each additional unit of profit than under the fixed charge approach. However even without leasing or renting, government can negotiate performance agreements with management that enable a similar range of possible incentives.

It can therefore be concluded that the main reason to consider leasing is to introduce competition and new operators into the large general-purpose ports in Vietnam, as proposed under case (a). In many cases the new port operators will be willing to invest in new equipment, or introduce new handling techniques (as has already occurred in Saigon Port). Many international terminal operators, specialized in container handling and other cargo types, would be likely to be interested in bidding for the lease of parts of Vietnam's gateway ports. Often an appropriate approach would be to lease each berth/yard to separate operators, to ensure competition within the port.

On the other hand, under the circumstances of case (b), there is no convincing case for separating management and operations of all ports as a matter of general policy. Only where this leads to more operators and competition is it likely to lead to overall benefits. In smaller ports there seems little scope for more than one operator, so leasing is likely to have a very small role.

When considering implementation of leasing or renting arrangements, the following important issues have to be addressed:

(1) ownership of infrastructure and equipment - either wholly or partly with the port operator (under a lease agreement) or with government (under a rental agreement),
(2) period of the lease/rental agreement - longer terms encourage port operators to develop the business and invest,
(3) valuation of the lease/rental agreement - depends on any restrictions placed on use of facilities/equipment and on the value of the business (which is dependent on how well the port is managed and on any obligations placed on operators to employ labor, which is a vital issue in Vietnam because of the excess number of staff in the ports),
(4) responsibility for maintenance - with port operator or with government,
(5) through what organizational arrangement government exercises its infrastructure management function - either through a state-owned commercial enterprise (port corporation) or through an enterprise under a gov. department like VIWA (port authority).