

**APEC**  
**TRANSPORTATION SYSTEMS**  
**AND**  
**SERVICES SURVEY**

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as of September 1995

## INTRODUCTION

The Asia Pacific Region is characterized by vast distances between land masses and varying stages of development for regional economies. Whether members are developed or developing, they all share a common need for an efficient and integrated transportation system. Whether goods and people are moved over the most elementary of roads or through some of the most advanced rail and aviation systems in the world, the need to improve transportation systems is a concern shared by all APEC members.

To achieved this objective, the Transportation Working Group was created.

The APEC Transportation Working Group (TPT) identified as one of its initial efforts the development of a document that would provide basic information on the organization of each member's transportation system. The emphasis of this project was on the administrative and financial environment of each economy's transportation system. Each member was asked to complete a survey that addressed the maritime, aviation, rail, highway, and mass transit segments of the member's transportation system as they relate to international trade within the APEC region. The survey requested information on such areas as foreign investment, infrastructure financing, regulatory environment, and institutional relationships.

Thirteen of the fifteen economies responded to the survey. Member submissions were received from the following: Australia, Canada, People's Republic of China, Hong Kong, Indonesia, Japan, Republic of Korea, New Zealand, Republic of the Philippines, Singapore, Chinese Taipei, Thailand and the United States. The survey report, by using a looseleaf binder format is designed to allow the remaining economies to be included, and for periodic update of member submissions.

This survey was designed to be an information-oriented document; as a consequence, no comparative analysis between economies submissions is included in this work. However, we note that there are some common themes in transportation developments in APEC -- for example, corporatization and privatization, foreign investment, and regulation.

Increased demand for transportation services, both passenger and cargo, in APEC economies has initiated changes in policies and technology calling for a more regional perspective of transportation. To meet the needs of this ever-changing environment the Transportation Working Group, where appropriate, will assist in proposing regional solutions to address regional transportation issues.



**SURVEY FORMAT  
AND  
QUESTIONNAIRE**

## SURVEY FORMAT AND QUESTIONNAIRE

### ADMINISTRATION

- I. List the national and regional (state) government authorities that administer and regulate your transportation industry with a contact office, address, and phone number.
  
- II. Describe how the major transportation modes (i.e., maritime, aviation, rail, highway) are regulated by your national authorities. Discuss the general framework of regulation in the following areas:
  1. Infrastructure Development
  2. System Operations and Maintenance
  3. Environmental Protection
  4. Safety and Security
  5. Standards
  
- III. Describe how your transportation system is organized between national, regional, and local governments. Discuss the intergovernmental relationships by transportation mode.
  
- IV. Identify the operations and services within your transportation modes that are performed by private or semi-private organizations.
  
- V. Place an appropriate check by each part of your transportation industry to describe its most common form of ownership or administration.

	<u>National</u>	<u>Regional</u> <u>/local</u>	<u>Private</u>	<u>Semi</u> <u>public</u>
1 Port authorities	_____	_____	_____	_____
2 Port operations	_____	_____	_____	_____
3 Ocean carriers	_____	_____	_____	_____
4 Inland waterway carrier	_____	_____	_____	_____
5 Airlines	_____	_____	_____	_____
6 Airport authorities	_____	_____	_____	_____
7 Airport operations	_____	_____	_____	_____
8 Air traffic control	_____	_____	_____	_____
9 Railroad freight	_____	_____	_____	_____
10 Railroad passenger	_____	_____	_____	_____
11 Railroad commuter	_____	_____	_____	_____

- 12 Highway construction \_\_\_\_\_
- 13 Highway maintenance \_\_\_\_\_
- 14 Other \_\_\_\_\_

VI. Provide an overview of new policy directions, major programs and projects, and new products that will make your transportation system more efficient.

**FINANCING**

VII. Identify the methods (e.g., user fees, license fees, tolls, taxes), mechanisms, and institutions (e.g., National government, multilateral organizations) that provide funding for transportation infrastructure projects.

VIII. What opportunities exist for foreign investment in your transportation infrastructure and services?

# AUSTRALIA

## AUSTRALIA

### ADMINISTRATION

- I. List the national and regional (state) government authorities that administer and regulate your transportation industry with a contact office, address, and phone number.

See Attachment 1 and 2.

Attachment 3 lists the Federal and State Government authorities that administer and regulate transportation in Australia. It also includes the address details for:

- National Rail, which has been incorporated to run the interstate rail freight system in Australia;
- National Road Transport Commission which has responsibility for setting regulations and charges for heavy road transport vehicles over 4.5 tonnes; and
- AUSTROADS which is an association of Federal and State road and traffic authorities.

- II. Describe how the major transportation modes (i.e., maritime, aviation, rail, highway) are regulated by your national authorities. Discuss the general framework of regulation in the following areas.

**AIR.** The responsibility for the regulation and operational control of aviation and its facilities in Australia is divided between the Department of Transport and Communications, the Federal Airports Corporation (FAC), the Civil Aviation Authority (CAA) and the Bureau of Air Safety Investigation (BASI).

The Government's intention to establish the FAC was announced in August 1985 and the Corporation came into being on 13 June 1986. The subsequent decision to establish the CAA was announced in October 1987 and the Authority commenced operations on 1 July 1988.

Both the FAC and the CAA were established to perform certain specific functions which were previously the responsibility of the Department of Transport and Communications and its predecessors. The Department retains overall responsibility for national aviation planning and policy issues and also maintains specific responsibilities such as safety policy and the regulation of aviation security, environmental concerns and national infrastructure planning.

It should be noted that the implementation of the Government's policy to divest itself of all regional airports remaining under the control of the Department of

Transport and Communications, is nearing completion. Funding for regional airports supported by the Government under the Aerodrome Local Ownership Plan ceased on 30 June 1993. Consequently the Department of Transport and Communication's role is continuing to diminish in an operational sense.

**LAND.** The Australian Constitution largely entrusts land transport matters to the States and Territories rather than to the Commonwealth. For its part, the Federal Government's objective is to achieve a safe, efficient and cost effective transport system across all modes.

The Commonwealth Government's powers in relation to land transport are derived in large part from those sections of the Constitution relating to interstate trade and commerce and provision of financial assistance to the States by means of grants. The Commonwealth Government, through the Federal Department of Transport and Communications works closely with State and Local Government transport authorities to implement initiatives to maintain and improve Australia's land transport systems.

**RAIL.** Rail is predominantly the preserve of the States with the Federal Government's direct role in rail services limited to operations of the Australian National Railways Commission (AN) principally in non-metropolitan South Australia and Tasmania but extending into Western Australia, NSW and the Northern Territory. The governments of four States (NSW, Vic, Qld and WA) operate their own rail systems.

The Federal Government provides substantial funding for upgrading the intercapital rail network operated mainly by State Governments.

National Rail (NR) is a company owned jointly by the Commonwealth and States to operate interstate rail freight. NR is described more fully in Attachment 3.

### **Alternative Transport Modes**

#### **Urban Public Transport**

The Federal Government has an integrated land transport strategy which involves not only funding road and rail but other measures that complement infrastructure spending, e.g. urban public transport systems.

Providing and operating these services is primarily a State and Territory responsibility.

#### **Bicycle Strategy**

The Federal Government is developing a National Bicycle Strategy in cooperation with the States and Territories.

## **Infrastructure Development**

**MARITIME.** The Federal Government provides the general regulatory framework for the maritime sector in the areas of ocean shipping services, navigation, safety and security, vessel certification and inspection and environmental protection. Intra-State shipping services are regulated by individual State governments.

The primary responsibility for the development, provision and maintenance of port facilities rests with the six State Governments and the Northern Territory Government.

**AIR.** The FAC owns, develops and operates Australia's major airports as a commercially self supporting Government owned business enterprise.

The primary role of the FAC is the day to day management of Federal airports, including the provision of facilities and services at those airports. The Corporation also has a secondary role of providing to the Commonwealth or other airport operators consultancy and management services relating to the development and operation of airports.

The FAC has embarked on an unprecedented Australia-wide program of upgrading airport facilities with priorities established on a national basis. Over the next decade, the major task will be to develop facilities which are appropriate to the new aviation environment.

The Government previously provided funding for 50% of the cost of approved maintenance works at regional aerodromes under the Aerodrome Local Ownership Plan. However, the Department of Transport and Communications has now negotiated the withdrawal of all aerodromes from the ALOP and funding under the Plan ceased on 30 June 1993. The Department has virtually completed the transfer of regional aerodromes under its control to full local ownership. This will allow local communities to decide on, and have responsibility for, the level of infrastructure they require. Government funding will continue until local communities accept full financial responsibility for their aerodromes. The transfer program is expected to be completed by late 1993.

**LAND.** Road funding is shared by the three levels of government - Federal, State and local government in approximately one third shares. While the Federal Government does not build roads it provides financial assistance to the States and Territories who act as the Federal Government's construction and maintenance agents.

The Federal Government fully funds the construction and maintenance of the 18,400 km National highway system which links all Australian capital cities and major population centres in Australia. The remainder of Australia's road network of some 810,000 km is the responsibility of State and local government.

## **System Operations and Maintenance**

**MARITIME.** The Federal Department of Transport and Communications is responsible for maritime policy development and the economic regulation of Australia's international liner cargo shipping services. The Australian Maritime Safety Authority administers regulations and safety standards for shipping in Australian waters engaged in interstate and overseas trade. The Federal Government has no express powers under the Australian Constitution in relation to ports and terminals. The exception is in relation to responsibility for the provision and maintenance of relatively minor port facilities in territories directly administered by the Federal Government. State Port authorities are responsible for the maintenance of the majority of harbour facilities with the exception of a small number of privately owned ports.

The Government nevertheless has an interest in ports and related matters in view of their importance in interstate and international trade. A number of Federal departments and agencies exercise functions that impact on the operation of port related activities including customs control, health, quarantine, immigration, quality control over exports, and industrial relations as far as it relates to international and interstate trade and commerce.

**AIR.** The CAA is responsible for the provision of Air Traffic Control and advisory services in national and international (oceanic) airspace. These services include area control, approach control, aerodrome control and flight information services in accordance with the Convention on International Civil Aviation.

## **Environmental Protection**

**MARITIME.** In Australia, the regime for controlling pollution from ships is based on a number of widely adopted conventions administered by the International Maritime Organisation.

These Conventions are:

International Convention for the Prevention of Pollution from Ships (MARPOL 73/78). The main objective of this Convention is to reduce to a minimum and, in certain instances, prohibit the operational discharge of marine pollutants from ships through the establishment of operational discharge criteria and procedures and construction and equipment standards. In addition, ship design features are introduced to minimize the outflow of oil in the event of an accident.

International Convention on Civil Liability for Oil Pollution Damage 1969. This Convention establishes strict liability for the owner of a seagoing vessel actually carrying oil in bulk as cargo.



Convention relating to Intervention on the High Seas in Cases of Oil Pollution Casualties 1969. This Convention allows governments to take measures on the high seas to protect their coastline and related interests. Measures which can be taken include moving, sinking or destroying the ship, and removing its cargo.

International Convention on Oil Pollution Preparedness, Response and Cooperation 1990. The primary objectives of this Convention are to facilitate international cooperation and mutual assistance in preparing for and responding to a major oil pollution incident and to encourage countries to develop and maintain an adequate capability to deal with oil pollution emergencies. The Convention is not as yet in force internationally.

**AIR.** Environmental legislation relating specifically to aircraft focuses on aircraft noise. Regulations under the Air Navigation Act 1920 control noise emissions from aircraft, stipulate a program for phasing out Chapter 2 subsonic jet aircraft and impose a curfew at Sydney Airport.

Noise abatement procedures and restrictions on night time movements at airports other than Sydney are laid down in Aeronautical Information Publications issued under the Civil Aviation Act 1988.

The CAA and FAC have been directed as to their environmental responsibilities by a formal Ministerial direction issued under the Civil Aviation Act 1988 and the Federal Airports Corporation Act 1986. These responsibilities broadly relate to the control of noise and air pollution and performance of consultation with the public.

Control of the environmental impacts of activities at non-Commonwealth owned airports, other than operations by aircraft in the air, is the responsibility of State Governments.

**LAND.** Federally funded National Highway roadworks are subject to the Environment Protection (Impact of Proposals) Act 1974 and the provisions of Section 30 of the Australian Heritage Commission Act 1975.

States are required to certify that each National Highway project or bulk works programs funded from Federal funds conforms or will conform with the requirements of Federal and State environmental legislation, and whether they are likely to have a significant effect on the Environment, National Estate sites, Aboriginal lands and sacred sites. Without appropriate certification, approval for funding will not be given.

State and Territory road authorities also pay due observance to the environmental restrictions.

## **Safety and Security**

**MARITIME.** The Federal Government through the Australian Maritime Safety Authority (AMSA) provides for the administration of regulations and safety standards applicable to ships in Australian waters engaged in interstate and overseas trade. AMSA is responsible for ensuring the seaworthiness of such ships including crew competence and contributes to the development of appropriate national and international standards. Responsibility for intrastate vessels and small craft such as pleasure craft and fishing vessels rests with the States/Territories within the framework of a Code of Uniform Shipping Laws.

**AIR.** The Department of Transport and Communications has the primary responsibility for the regulation of aviation security for Australian airports and airline services from, to and within Australia. Airport and airline operators are required to comply with minimum aviation security measures as set out in the Commonwealth Government's Air Navigation Act and Regulations as well as government approved airline and airport security programs. While operational responsibility for implementing security measures lies with airport and airlines, the Department assists with the provision of advice and intelligence. The Department also monitors compliance with the minimum security measures.

The CAA is required under the Civil Aviation Act 1988 to conduct the safety regulation of civil aircraft in Australia and for Australian aircraft operating outside Australian territory.

BASI has prime responsibility for the investigation of all safety related occurrences affecting civil aviation in Australia. Its activities include the making of recommendations and the monitoring of operational standards and practices developed by the CAA.

**LAND.** The role of the Federal Office of Road Safety (FORS) is to set the national agenda for improving road safety through complementary Federal, State and Territory programs. It also administers and coordinates national road user and vehicle safety programs in a cost-effective manner.

FORS has been instrumental in developing a national road safety strategy for the 1990s and works closely with State and Territory governments and the National Road Trauma Advisory Council.

FORS is responsible for administering the Motor Vehicle Standards Act 1989 - Federal legislation covering the design and construction of all vehicles sold for the first time in Australia (new and second hand imported).

## **Standards**

**MARITIME.** The Australian Maritime Safety Authority (AMSA) provides a system of navigational aids consistent with international standards designed to meet commercial shipping needs, contributes to the development of appropriate national and international standards for ship and personnel safety, and promotes safe boating standards and practices to the owners and operators of pleasure craft and fishing vessels.

**AIR.** The Department of Transport and Communications participates in the development of standards affecting aviation security through Australian participation in the deliberations of the International Civil Aviation Organization. The Department is an active participant in work on the development and modification of Security Standards set out in Annex 17 (International Standards and Recommended Practices - Security) of the Chicago Convention. These standards form the basis of the Australian security regulatory framework.

The Civil Aviation Authority is responsible under the Civil Aviation Act for developing, ensuring compliance with, and implementing (by means of certificates, licenses, registrations and permits) aviation safety standards, relating to:

- flight crews engaged in the operation of aircraft;
- the design, construction, maintenance, operation and use of aircraft;
- the planning, construction, establishment, operation and use of aerodromes;
- the planning, establishment, maintenance, operation and use of air route and airway facilities; and
- personnel engaged in the above.

**LAND.** The Federal Government issues Standards and Guidelines for the Construction of National Highways and Guidelines for Minimum Maintenance Requirements, for National Highways. AUSTROADS issues construction and maintenance guidelines for other roads, which State Road Authorities take into account in administering their road programs.

### **III. Describe how your transportation system is organized between national, regional, and local governments. Discuss the inter governmental relationships by transportation mode.**

**MARITIME.** Regulation of the shipping sector is divided between Federal and State authorities. State Governments have responsibility for shipping matters relating to intrastate trade and the Federal Government for inter-state and external shipping matters.

The primary responsibility for the development, provision and maintenance of port facilities rests with the six State Governments and the Northern Territory Government.

In general, the main functions undertaken by port authorities include:

- planning, provision and maintenance of port facilities including navigation aids
- administration and control of port facilities
- allocation of berths and the provision of moorings, supplies, and services to shipping
- the levy and collection of port rates and other charges.

It is the exception rather than the rule for the public sector to be involved in the construction or operation of cargo handling facilities such as container terminals or bulk loading facilities.

**AIR.** There are three major categories of aerodrome ownership in Australia: Federal Airports Corporation (FAC), Commonwealth and local.

The FAC owns, develops and operates Australia's major airports (listed at Attachment 4) as a commercially self supporting Government-owned Business Enterprise.

The Government, through the Department of Transport and Communications, is also currently responsible for developing, maintaining and operating 9 regional aerodromes (as at 21/9/93), and the civil area of one aerodrome owned by the Department of Defence and jointly used for military and civil purposes.

Until recently, the Government also provided funding for 50% of approved maintenance works at regional aerodromes under the Aerodrome Local Ownership Plan.

However, in August 1990 the Government announced its intention to transfer the remaining regional aerodromes under the control of the Department of Transport and Communications to full local ownership, and to negotiate the withdrawal of regional aerodromes under the Aerodrome Local Ownership Plan. The Government also sought to transfer responsibility for the civil areas of the joint user aerodromes. The ALOP withdrawal program was completed on 30 June 1993. The aerodrome transfer program is expected to be completed by late 1993.

The remaining licensed aerodromes (about 350) are either operated by local authorities, State Government instrumentalities or private interests.

**LAND.** See answer provided in Question II.

IV. Identify the operations and services within your transportation modes that are performed by private or semi-private organisations

**MARITIME.** Shipping services in Australia are generally privately owned with the exception of ANL Ltd (currently all shares are held by the Australian Government) and Stateships (a statutory authority owned by the Government of Western Australia).

The private sector also plays a significant role in providing services and developing facilities in Australian ports.

Most bulk handling facilities in Australian ports are funded and installed by private sector companies. Examples include iron ore loading infrastructure in the north-west of Australia and the extensive infrastructure constructed at Hay Point and other Queensland ports for the export coal trade.

There are a small number of privately controlled ports, generally more remote single user ports dedicated to handling particular products, established and operating under State legislation. They are subject to government control largely only in the areas of navigation, safety and related areas of shipping. Details of these ports are at Attachment 5.

Towage services and stevedoring are almost entirely provided by the private sector.

Governments have also encouraged private sector involvement in the development and ownership of port facilities and provision of port services. This process has led to a number of authorities withdrawing from the direct handling of cargoes and from functions such as pilotage which could be more appropriately undertaken by the private sector.

In addition to undertaking the survey and classification of vessels in its own right the Australian Maritime Safety Authority (AMSA) has memoranda of understanding with several international classification societies to perform classification and surveying services on its behalf AMSA itself is able to survey and classify vessels consistent with national and internationally developed standards.

**AIR.** The Government has deregulated interstate air services with the termination of the Airlines Agreement on 30 October 1990, freeing the industry from the rigorous economic regulation that had applied for almost 40 years.

Airway and airport services are primarily provided by the CAA and FAC which are Government owned business enterprises that operate on a commercial basis. The CAA is responsible for; air safety regulatory standards, air traffic control, flight advisory services, navigation and surveillance systems, and rescue and fire fighting services at major airports. The FAC is responsible for operating 22 major airports and the provision of facilities and services at those airports.

Local authorities and private businesses operate other airports in Australia.

The Government owned airline, Qantas, which was merged with Australian Airlines on 14 September 1992, is currently being privatised.

**LAND.** In the main, road transport operators are all from the private sector. Rail operations are a State responsibility with the exception of National Rail (see above) and Australian National which operates as a Government Business Enterprise. Private freight railways operate in all States, under State Government regulations, and carry about 40% of Australia's freight in terms of tonne-kilometres, with the bulk of this from the transport of iron ore in Western Australia. National Rail has been established as a company with provision for sale of shares to the private sector in due course.

V. Place an appropriate check by each part of your transportation industry to describe its most common form of ownership or administration

	<u>Federal</u>	<u>Regional /local</u>	<u>Private</u>	<u>Semi public*</u>
1 Port authority		x	x	
2 Port operations		x		
3 Ocean carriers		x	x	
4 Airlines	x			
5 Airport Authorities	x	x		
6 Airport Operations	x			
7 Air Traffic Control	x			
8 Railroad Freight			x	
9 Railroad passenger & commuter services	x	x		
10 Highway construction	x	x	x	x

\*Refers to designated authority of the Federal Government or a regional or local government that operates as a business, either for profit or non-profit.

VI. Provide an overview of new policy directions, major programs and projects, and new products that will make your transportation system more efficient.

**MARITIME.** The Commonwealth Government is currently seeking to divest a substantial part of its interest in ANL Limited. Currently ANL is an incorporated public company whose shares are held by the Commonwealth.

ANL is an integrated international and domestic shipping operator participating in both blue-water and shore-based shipping activities, either in its own right or in joint venture arrangements with private sector interests. ANL has a primary focus on liner (container) trades but is involved in all aspects of the industry,

including some bulk operations and, through a minority holding in Australian Stevedores Pty Ltd, container terminal activities in Australia.

The Shipping Reform Strategy announced on 1 June 1989 has been successfully implemented. On 20 April 1993, the Commonwealth Government announced a further three-year shipping reform program aimed at further improving the efficiency and international competitiveness of the Australian shipping industry. The program, to be overseen by the Shipping Industry Reform Authority (SIRA), will see crew reductions on Australian trading ships, a continued emphasis on training of seafarers, and reassessment of employment practices. Government incentives for the introduction of modern technologically advanced ships will continue.

Also on 1 June 1989 the Government announced a comprehensive reform program designed to address the underlying structural inefficiencies of the port and waterfront sectors.

The program is aimed at improving the efficiency and productivity of the waterfront and associated industries, and providing the basis of faster, more reliable cargo transfer.

The reform program comprises three main elements:

- overhauling stevedoring employment arrangements;
- pursuing port authority reform; and
- encouraging competition within the industry and ensuring the benefits of reform are passed on to users.

### **Stevedoring Reform**

The first of these elements has now been substantially completed. Reform of the stevedoring industry was carried out under the terms of an in-principle agreement overseen by the Waterfront Industry Reform Authority (WIRA). The program commenced in 1989 and was completed in October 1992.

Major elements in the stevedoring reform process included the introduction of enterprise employment, industrial award restructuring and the rejuvenation of the ageing workforce through an early retirement and redundancy program.

By the end of October 1992, 108 enterprise and operational agreements were implemented, allowing a reduction in the stevedoring workforce of 57 percent, from 8872 to 3818.

The implementation of enterprise agreements in the industry has allowed more efficient and flexible operating practices to be introduced in stevedoring companies in all capital city ports and in a number of regional ports.

The change to enterprise employment has brought about significant improvements in productivity within the industry.

Productivity in container crane handling rates in major ports rose from 12.8 TEUs in 1989 to 20.1 TEUs per hour

- Australian crane rates are now comparable with similar sized overseas ports.
- more efficient container terminals are achieving crane rates of between 20 and 25 containers per hour - some of the more efficient container terminals are achieving handling rates of up to 30.5 TEUs per hour

Average ship turnaround time improved by 45 per cent as a result of the improved crane handling rate.

The move to enterprise employment has also heightened competitive pressures within the industry. The Prices Surveillance Authority (PSA) a Federal Government price monitoring body, reported in August 1993 that average container terminal charges had decreased by 25 percent over the period from 1990 to December 1992 (down from \$254 per TEU to \$190).

The PSA also reported that break-bulk stevedoring has benefited in some respects from the reform program, with falls in the cost per unit of some commodity types, and an overall compression of the margin of revenue over expenses.

Grain handling labour requirements have reduced by between 50% and 80%, and loading times and stevedoring charges for grain vessels have been halved. The Australian Wheat Board claims these measures are saving the wheat industry up to \$35 million annually.

Indirect savings to all importers and exporters from better service, improved reliability and reduced demurrage are also substantial.

### **Port authority reform**

Reforms involving port authorities are being promoted through consultation with State and Northern Territory Governments. While progress varies across administrations, its general thrust has been to commercialise port authority operations, concentrate on a reduced range of core activities and revise pricing arrangements

- these measures have resulted in improved productivity and efficiency in port authority operations, and an overall reduction in ship arrival/entry delays over the past two years
- since 1989, the overall port authority workforce covering the major ports has been reduced by 24 percent, from 3453 to 2620.



To complement the Government's broader maritime reform initiatives, a Federal Government economic investigatory and advisory body, the Industry Commission, completed an examination of Australia's port authority services and activities in June 1993.

The key reform issues identified by the IC comprise:

- corporatisation arrangements, which affect the way the port authority is managed. The IC recommended:
  - all public port authorities be constituted without delay as statutory bodies, separate from the Departmental structure of Government;
  - adoption of a commercial approach similar to the policy applied by the Commonwealth to its own Business enterprises;
  - restricting services and activities to core functions. It recommends non-core activities be identified and divested to private enterprise and that the supply of core services and activities be contracted out wherever that is cost-effective.
- the merits of privatising ports should be assessed on a case by case approach.
- competition policy issues, which affect the competitive environment. Steps proposed by the IC include:
  - making port authorities subject to both the Trade Practices Act and the Prices Surveillance Act;
  - making port authorities liable to pay taxes, government charges and dividends out of after-tax profit; and
  - port authorities issuing 'non-exclusive' tradeable licenses for towage, pilotage and other port services. Any exclusive licence should be issued for only a short term through public tender.

The Federal Government is currently considering the report, prior to commencing negotiation with the states on the best means of implementing the recommendations.

### **Enhanced competitive environment**

The basic aim of the reform program has been to promote greater competition on the waterfront and to ensure the benefits of reform are passed on to users by way of reduced costs and better services.

Two Federal Government investigatory bodies, the Prices Surveillance Authority and the Trade Practices Commission, are taking an active role in monitoring competition and prices within the industry:

- The PSA is monitoring stevedoring charges, and has also reported on container depot charges, towage charges and land based charges levied by shipping companies;
- The Trade Practices Commission is conducting a study of the effects on competition and efficiency of port leasing policies.

The Government is also increasing focus on ensuring the whole import export transport chain operates at maximum efficiency.

Issues regarding the efficiency of the interface between seaports and land transport were addressed in a report of the House of Representatives Standing Committee on Transport, Communications and Infrastructure, released in April 1992. The recommendations of the report were accepted and are currently being implemented.

#### **Port of Townsville Redevelopment**

The Commonwealth Government is contributing \$20 million as part of the "One Nation" package towards the development of transport infrastructure in Queensland. The Queensland Government has proposed that the entire amount be directed towards dredging, reclamation work and the construction of a rail loop in the Port of Townsville. The public sector component of the project is now complete.

It is anticipated that the redevelopment will enhance the Port of Townsville's capacity to handle:

- nickel ore for the Greenvale nickel smelter
- Mount Isa Mines copper products
- bulk cement for Queensland Cement Ltd and
- bulk petroleum products, through the construction of a bulk petroleum berth.

Total redevelopment is expected to cost approximately \$90 million.

#### **Economic Regulation of Liner Shipping**

In April 1993, the Australian Government formally announced a major review of Part X of the Trade Practices Act 1974.

Part X currently regulates Australia's international liner cargo shipping services. It provides shipping conferences with certain limited exemptions from the competition provisions of the Act, in return for which conferences are obliged to negotiate service arrangements and the terms and conditions of carriage of Australian export liner cargo with a designated peak shipper body.

The review is examining the extent to which Part X has achieved its objective of providing Australian exporters with stable access to competitive liner cargo services, whether the limited exemptions available to conference operators should continue and, if so, in what form. It is also looking at the appropriate degree of regulation of Australia's inwards liner trades.

The review is expected to report its findings towards the end of 1993.

### **Australia's Marine Cargo Liability Arrangements**

Australia's Carriage of Goods by Sea Act 1991 currently applies the marine cargo liability regime known as the amended Hague Rules. The Act also makes provision for the future implementation of the Hamburg Rules, by proclamation, at any time up to 31 October 1994. If the Hamburg Rules are not proclaimed by this date they will automatically come into effect unless the Australian Parliament decides otherwise.

An assessment of the timing for possible implementation of the Hamburg Rules will commence late in 1993. It will take into account recent international developments in marine cargo liability and also involve close consultation with industry interests. The information obtained through these processes will form the basis for a decision by the Government.

### **AIR**

#### **New Policy Directions**

In February 1992, the Government announced in the "One Nation" Statement a detailed strategy for the continuing reform of the Australian aviation industry to meet the challenges through to the next century. The strategy established the framework and timetable for removing the barrier between Australia's domestic and international sectors, moving to multiple designation and opened the way for developing a single aviation market with New Zealand.

The policy reforms in the One Nation Statement have been substantially implemented, ahead of the time frame originally envisaged.

Among the major achievements to date have been:

- further liberalisation of the trans-Tasman market including agreement with New Zealand on a timetable for multiple designation across the Tasman and a framework for the implementation of a single aviation market by November 1994;
- the negotiation of multiple designation on Australia's major international routes, covering around three quarters of our bilateral partners;
- the implementation of revised passenger facilitation arrangements accommodating the progressive merging of our domestic and international markets;
- the removal of aviation specific restrictions on equity investments between Australian operators;
- the entry of Qantas into the domestic market from November 1992; and
- the establishment of the International Air Services Commission on 1 July 1992 as an independent statutory authority to allocate international aviation rights among Australia's international carriers.

#### **Civil Aviation Authority**

Over the past few years the Civil Aviation Authority has undertaken a number of fundamental reviews which have examined the way in which it provides services to the industry and the resources to meet those requirements. These major reviews have achieved, or will achieve when fully implemented, significant efficiency gains. The major reviews include:

- completing the Review of Resources to produce a draft management plan for the Authority. This will enable a substantial reduction in the overall cost of safety regulation. In addition the Authority has already announced savings of \$96m in airways charges for 1992/93;
- reviewing and changing the Authority's Air Traffic Services Systems Development strategy to develop a 'total system' approach and modernise with proven technology;
- continuing the redefinition of the airspace management plan to harmonise Australian airspace with international standards;
- the consolidation of the Search and Rescue function to two centres, co-located with the planned Two Air Traffic Services Centres in Brisbane and Melbourne;

- reviewing all of its air traffic control operations to ensure that Air Traffic Control Towers are being provided in the most efficient manner in terms of safety and cost;
- a review of the operation of the Safety Regulations and Standards Division;
- the Authority has commenced a major equipment modernisation process that will reach fruition in 1996. Radar sensors have been replaced and upgraded around the country, radar coverage extended and the Australian Advanced Air Traffic System project will provide upgraded radar display equipment and flight data processing to facilitate all enroute and most terminal air traffic control in Australia being managed from two centres Brisbane and Melbourne. The mid 1990's will see the commencement of moves to introduce Future Air Navigation Systems (FANS) involving among other things a move to satellite based systems.

**LAND.** The Federal Government has devised a National Land Transport Strategy in response to calls for Australia to have a more integrated and planned approach to transport, incorporating strategies for various transport modes, the provision of roads, railway lines, bridges and freight handling facilities and their associated land uses.

The overall strategy involves a workable and responsive policy framework supported by commercially-focussed organisations and a simplified regulatory environment in which natural transport hubs can flourish and compete; each supported by quality infrastructure facilities. Depending on requirements, these can include freeways, roads, dedicated rail freight lines, cargo handling and transfer facilities.

The formal consultative process involving governments and industry will ensure genuine cooperation on reform issues, regulation and harmonisation of standards across State and Territory borders that in the past have been barriers to the realisation of a consistent, national transport plan.

To complete the strategy framework, the Federal Government has empowered the Trade Practices Commission and the Prices Surveillance Authority to ensure that the benefits of competition are passed to consumers and that monopoly positions are not abused.

Some of the new measures and initiatives are as follows:

- \$3 billion to be spent on road and rail infrastructure improvements over the next few years, which will focus on better modal connections such as at the ports and concentrates on interstate corridors serving commerce and industry;
- extending the National Highway system to include city ring roads;

- implementation of a national road safety strategy for the 1990s, designed to continue the momentum which has seen a dramatic reduction in road crashes in the early 1990s (some twenty-five percent). Measures include: retractable seat belts for rear seat passengers; upgraded braking standards for heavy vehicles;
- rollover standards being implemented for buses to upgrade vehicle cabin strength.

## FINANCING

- VII. Identify the methods (e.g., user fees, license fees, tolls taxes), mechanisms, and institutions (e.g., National government, multilateral organisations that provide funding for transportation infrastructure projects).

**MARITIME.** Funding for port related infrastructure in Australian ports is generally the province of the private sector. This is particularly so for bulk handling facilities.

In many cases, private sector companies are also required to directly contribute towards development works, such as channel dredging undertaken by the public sector, where the private company is the main beneficiary.

Some general cargo facilities, constructed by port authorities for common use, are funded from grants or loans to the port authority from the State Government. However, container handling facilities are usually developed on land leased from port authorities, with the port authorities providing only the basic quay wall. All developments behind the quay wall, including paving, installation of cranes and ancillary equipment are usually the responsibility of the private sector lessee.

Under the 'One Nation' statement of February 1992 Federal financial assistance is to be provided for a number of port related infrastructure projects.

The 'One Nation' statement also announced the provision of assistance for a further range of projects designed to enhance the timeliness and cost effectiveness of goods movement on the interstate mainline rail network. One potential benefit of these projects is the stimulation of increased competition between the major ports.

## **AIR**

### Federal Airports Corporation

The FAC operates as a self funding government-owned business. It is required to fund its own airport developments and pay taxes, including income tax. At present, approximately 40% of its revenue is derived from aviation activities and the balance from commercial operations at airports.

Users of FAC airports are charged for services and facilities provided to them by means of "aeronautical charges" levied by the Corporation, under section 56 of the Federal Airports Corporation Act 1986. The Corporation's aeronautical charges (which include landing charges for airlines, a General Aviation Infrastructure Tariff (GAIT), peak and shoulder period charges at Sydney Airport and parking charges for some type of aircraft) partially offset the costs associated with providing and maintaining its airports' facilities including runways, taxiways, terminal, aprons etc.

FAC aeronautical charges are examined by the Prices Surveillance Authority (PSA) and the responsible Minister has the power to disapprove any changes before implementation.

Other FAC charges are based on commercial negotiations between the FAC and other parties and are not covered by the PSA.

The PSA completed an inquiry into the aeronautical charges of the FAC in August 1993. The Government is currently considering the PSA's recommendations.

#### **Civil Aviation Authority**

The CAA funds its operations including the provision of airways infrastructure primarily from revenue derived from airways charges collected from domestic and international regular passenger services. The CAA's charges for each service are designed to match costs of providing the service.

For avtur aircraft, charges for terminal navigation and the rescue and fire fighting service, at airports where these facilities and services are available, are based on weight and distance flown. Airways charges for avgas aircraft are collected through a duty on avgas and a weight based terminal navigation charge at capital city primary airports. Avgas aircraft with a MTOW of 2.5 tonnes or more also pay a weight base charge for the rescue and fire fighting service at airports where this service is available.

The Government provides funding to the CAA for its safety standard setting and surveillance and search and rescue functions plus a contribution towards the costs of implementing safety standards. Cost recovery for implementing safety standards is currently being phased in with full cost recovery by 1993-95. The Government has decided that the costs for safety standard setting and surveillance are to be met jointly by the Government and industry with the Government's contribution phased down to fifty percent of these costs over two years commencing 1 July 1993. The Government will continue to fund search and rescue.

### **Regional Aerodromes**

Until 30 June 1993 the Government provided funding for 50% of the cost of approved maintenance works at regional aerodromes eligible under the Aerodrome Local Ownership Plan. The local owner provided the remaining funds.

In August 1990, the Government announced it would invite local owners to take full financial responsibility for management and operation of aerodromes under the Aerodrome Local Ownership Plan and to transfer remaining regional aerodromes under the control of the Department of Transport and Communications to full local ownership. In February 1992, the Government announced additional funding to accelerate the withdrawal and transfer process.

The ALOP withdrawal program was completed on 30 June 1993. The aerodrome transfer program is expected to be completed by late 1993.

### **Remote Air Services Subsidy Scheme**

The Commonwealth Government subsidises air services to remote communities through the Remote Air Service Subsidy scheme. Some State Governments also subsidise air services to remote and rural communities.

**LAND.** As indicated earlier, transportation infrastructure is provided primarily by State and local governments from their own revenue sources.

With regard to roads, the Federal, State and local governments provide approximately one third of each of the cost of maintaining and improving the system. The Federal Government fully funds the cost of construction and maintenance of the 18,400 km National Highway system.

The Federal Government also provides funding towards upgrading works on interstate mainline rail links. It is spending about \$500m on mainline upgrading during 1992/3-1993/4.

Under the Federal Interstate Registration Scheme applicable for vehicles engaged solely in interstate trade and commerce, all revenue raised is returned to the States and Territories for maintenance and construction of interstate roads.

### **VIII. What opportunities exist for foreign investment in your transportation infrastructure and services?**

**MARITIME.** Foreign investors may undertake investment in the Australian maritime industry subject to the requirements of Australia's foreign investment guidelines.



Under those guidelines, proposals for the establishment of new businesses involving total investment of \$10 million or more and proposals for the acquisition of existing businesses with total assets valued at more than \$5 million are notifiable. Proposals where the target assets or the planned investment outlays are valued above these thresholds but below \$50 million will normally be approved without examination. Proposals where the valuation is \$50 million or more will be approved without the need to demonstrate economic benefits or to provide for Australian equity participation, unless judged by the Government to be contrary to the national interest.

It should be noted that there are nationality requirements in the Shipping Registration Act 1981 applying to the registration of vessels in Australia, and that Australian ports are in general controlled by statutory authorities.

**AIR.** Under Australia's foreign investment guidelines special requirements apply to foreign investment in civil aviation. Under those guidelines foreign airlines flying to Australia can generally expect approval to acquire up to 25 percent of the equity in a domestic carrier or up to 40 per cent in aggregate provided the proposal is not judged contrary to the national interest. All other foreign investors (including those that do not operate an airline service to Australia) may acquire up to 100 percent of a domestic carrier or establish a new aviation business unless the proposals is judged contrary to the national interest.

For airlines to be designated as Australian international carriers, they are required to demonstrate compliance with the provisions of Australia's bilateral air services agreements that they are substantially owned and effectively controlled by Australian nationals. Airlines applying for Australian designation are required to meet a number of national interest criteria, including:

- at least two-thirds of the Board members are Australian citizens;
- the Chairperson of the Board is an Australian citizen;
- the airline's head office is in Australia; and
- no more than 35 per cent in aggregate of equity will be held by foreign airlines, with a limit of 25 per cent on the total shareholding of any single foreign airline.

In the case of Qantas, total foreign ownership is restricted to 35 per cent.

**LAND.** Foreign investors may undertake investment in Australian land transportation infrastructure and services subject to the requirements of Australia's foreign investment guidelines, details of which are set out under the entry concerning maritime matters. There is no ban on foreign investment but State/Territory Governments need to seek the approval of the Federal Government's Foreign Investment Review Board for any proposals. Most of the private sector railways are owned by mining companies, which, in general, are partly foreign-owned.

**Attachment 1**

**NATIONAL AND REGIONAL (STATE) GOVERNMENT AUTHORITIES  
ADMINISTERING PORT AUTHORITIES**

**Mr Greg Martin**  
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SA Dept of Marine and Harbours  
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PORT ADELAIDE SA 5015  
Tel : (08) 47 0611  
Fax : (08) 47 0605

**Mr C Fuller**  
Secretary  
Dept of Transport and Works NT  
GPO Box 390  
DARWIN NT 0801  
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Fax : (089) 89 7361

**Mr W Gilbert**  
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Tel : (02) 364 21 11  
Fax : (02) 364 2033

**Mr J King**  
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GPO Box 4721  
MELBOURNE VIC 3001  
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**Mrs K Sanderson**

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Fax : (079) 221 700  
Mr M F Cullen

Master Warden  
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Mr L Graham  
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Captain G Hammonds  
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Port of Portland Authority  
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Mr H Wilkens  
Secretary Manager  
Marine Board of Circular Head  
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Fax : (004) 58 1271

Mr John Hirst  
Executive Director  
Association of Australian Port &  
Marine Authorities Inc  
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SYDNEY NSW 2000  
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Fax : (02) 247 7585

## ATTACHMENT 2

### **NATIONAL AND REGIONAL (STATE) GOVERNMENT AUTHORITIES ADMINISTERING THE AVIATION INDUSTRY**

#### **Federal Authorities:**

##### Department of Transport and Communications.

Todd Building, Corner Mort Street and Cooyong Street  
CANBERRA, ACT 2600  
(Postal Address: GPO Box 594, CANBERRA, ACT 2601).  
Tel : (06) 274 7111

##### Bureau of Air Safety Investigation

24 Mort Street  
CANBERRA ACT 2600  
(Postal Address: PO Box 967, CIVIC SQ, ACT 2608).  
Tel : (06) 274 7111

##### Federal Airports Corporation.

2 Lord Street  
BOTANY, NSW 2019  
(Postal Address: Locked Bag No 28 BOTANY, NSW 2019).  
Tel : (02) 207 7777

##### Civil Aviation Authority.

25 Constitution Avenue  
CANBERRA, ACT 2601  
(Postal Address: PO Box 367 CANBERRA, ACT 2601).  
Tel : (06) 268 4111)

#### **State Authorities:**

Director-General of Transport  
Department of Transport  
GPO Box 1620  
SYDNEY NSW 2001

Director-General of Transport  
Ministry of Transport  
GPO Box 4910  
MELBOURNE VIC 3000

Director-General of Transport  
Department of Transport  
GPO Box 1429  
BRISBANE QLD 4000

Director-General of Transport  
Department of Transport  
PO Box 53  
NEDLANDS WA 6009

Chief Executive Officer  
Office of Transport Policy and Planning  
GPO Box 1599  
ADELAIDE SA 5001

Secretary  
Department of Roads and Transport  
GPO Box 936J  
HOBART TAS 7001

Secretary  
Department of Transport and Works  
PO Box 2520  
DARWIN NT 8001

Director  
City Services Group  
Department of Urban Services  
GPO Box 158  
CANBERRA ACT 2601



## ATTACHMENT 3

### **NATIONAL ROAD TRANSPORT COMMISSION**

The Federal and State governments and the Australian Capital Territory (ACT) agreed in July 1991 to establish the National Road Transport Commission (NRTC) to develop and implement national arrangements for registration, regulation and charging of all vehicles weighing more than 4.5 tonnes.

The NRTC has jurisdiction over all technical and operating regulations for vehicles of more than 4.5 tonnes. This includes design and construction standards, traffic codes, roadworthiness and inspection standards, special codes of practice such as loading codes, enforcement levels and sanctions for breaches. National standards, once agreed by a Ministerial Council, will be embodied in legislation enacted by the Commonwealth on behalf of the ACT. States will pass complementary legislation to enable the national standards to be adopted uniformly.

The Federal, State and ACT governments have agreed to extend NRTC coverage to include the regulation of passenger and light vehicles and to enhance its information role to include publication of comparative information on road safety, road charges, road costs and the efficiency and effectiveness of roads expenditure. This will enable the NRTC to develop integrated regulations for the national vehicle fleet and to show the comparative efficiency of providing the road system.

NRTC address details are as follows:

National Road Transport Commission  
326 William Street  
MELBOURNE VIC 3000

Tel : 03 321 8444  
Fax : 03 326 8964

### **National Rail**

National Rail (NR) was established in 1991 and will bring all interstate rail freight operations under one management and operate that business commercially. Its objective is to be profitable within five years of commencing operations.

NRC will operate on a strictly commercial basis and be subject to all Federal, State and local government taxes and charges. It will be subject to the same legislative requirements as any private sector transport company.

The Commonwealth, NSW, Victoria and Western Australia are shareholders. Queensland has announced its intention to become an equity shareholder. South Australia, though it will not become a shareholder, will facilitate the Corporation's operation in that State.

NR has a decentralised corporate structure with its headquarters located in Sydney, its National Operations Centre in Adelaide and its marketing operations in Melbourne.

Enquiries should be directed to:

Managing Director

National Rail

PO Box 1419

PARRAMATTA Nsw 2124

Tel : (02) 685-2555

Fax : (02) 687-1804

**AUSTROADS**

AUSTROADS is the national association of Federal, State and Territory road and road transport authorities and was established in 1989. It is governed by a Council comprising their Chief Executives and the First Assistant Secretary, Land Transport Policy Division. AUSTROADS operates through five Programs: Road and Road Transport Policy; Road Use Management; Business Efficiency; Road Technology and Environment, and Road Safety.

The mission of AUSTROADS is "to pursue the effective management and use of the nation's roads as part of the Australian transport system by the development and promotion of national policies and practices".

**CONTACT DETAILS:**

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NSW 2010

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STATE/TERRITORY TRANSPORT AUTHORITIES

## **Federal Government**

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Department of Transport and  
Communications  
GPO Box 594  
CANBERRA ACT 2601  
Tel : (06) 274-7111  
Fax : (06) 247-4736

## **State Governments**

New South Wales  
Director-General of Transport  
Department of Transport  
19th Floor, AETNA Life Tower  
Cnr Bathurst & Elizabeth Streets  
SYDNEY NSW 2000  
Tel : (02) 268-2975  
Fax : (02) 268-2877

## **Victoria**

Secretary  
Department of Transport  
17th Floor  
589 Collins Street  
MELBOURNE VIC 3000  
Tel : (03) 619-6734  
Fax : (03) 619-6701

## **Queensland**

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13th Floor, Capital Hill Building  
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Fax : (07) 237-9648

## **Western Australia**

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Department of Transport  
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Fax : (09) 386-5119

**South Australia**

Chief Executive Officer  
Office of Transport Policy and Planning  
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ADELAIDE SA 5000  
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Fax : (08) 226-7500

**Tasmania**

Secretary  
Department of Transport & Works  
10 Murray Street  
HOBART TAS 7000  
Tel : (002) 333-598  
Fax : (002) 303-441

**Northern Territory**

Secretary  
Department of Transport & Works  
5th Floor, Jape Plaza  
Cavenagh Street  
DARWIN NT 0800  
Tel : (089) 827-356  
Fax : (089) 827-077

**ACT**

Director  
City Services Group  
Department of Urban Services  
6th Fl MLC Tower  
8-10 Hobart Place  
CANBERRA ACT 2601  
Tel : (06) 207-6174  
Fax : (06) 207-6176

Attachment 4

**Federal Airports Corporation Airports**

Sydney (Kingsford Smith)

Brisbane (Eagle Farm)

Melbourne (Tullamarine)

Adelaide

Perth

Hobart

Essendon

Darwin

Townsville

Coolangatta

Tennant Creek

Canberra

Launceston

Alice Springs

Mt Isa

Bankstown

Camden

Archerfield

Jandakot

Hoxton Park

Moorabbin

Parafield

## Attachment 5

### PRIVATELY CONTROLLED PORTS

Port	Owner
Ballast Head Kangaroo Island	CSR
Rapid Bay	Adelaide Brighton Cement Co
Port Stanvac	Petroleum Refineries (Aust)
Ardrossan	BHP
Whyalla	BHP
Yampi Sound	BHP Utah Minerals Inc
Gove	Nabalco Pty Ltd
Milner Bay (Groote Eylandt)	Groote Eylandt Mining Co

**CANADA**

## CANADA

### ADMINISTRATION

- I. List the national and regional (state) government authorities that administer and regulate your transportation industry with a contact office, address, and phone number.

See attachments 1 and 2.

- II. Describe how the major transportation modes (i.e., maritime, aviation, rail, highway) are regulated by your national authorities. Discuss the general framework of regulation in the following areas:

**GENERAL.** The federal government, through the National Transportation Agency (NTA), is responsible for the economic regulation of carriers and modes of transportation under federal jurisdiction. Major activities of the NTA are the following: administration of federal subsidy programs, regulation of market entry and exit, and settlement of disputes.

Transport Canada (TC) is the federal government department responsible for transportation safety regulation and the administration of national and international transportation policies and programs.

#### **Infrastructure Development**

**MARITIME.** The TC Marine Group coordinates the functions of the Canadian Coast Guard (CCG), four Crown corporations engaged in marine pilotage work, nine harbour commissions and the Canarctic Shipping Company Ltd., in which the federal government has a majority share holding. The Group liaises with the

St. Lawrence Seaway Authority and the Canada Ports Corporation (CPC), both Crown corporations, principally on operational matters. The CPC administers seven large ports which are autonomous local port corporations and seven other ports on a divisional basis. The TC Marine Group/CCG develops, administers and maintains a system of some 360 small ports and public harbours and is responsible for waterways development, dredging and shore protection.



**AIR.** The TC Aviation Group is responsible for the provision and maintenance of air traffic control and air navigation services. The Airports Group is responsible for the development of airport facilities and services. It operates some 100 Canadian land airports and subsidizes the operation of another 34 non-federally operated airports. The management and operation of a number of major airports are now being formally transferred to local airport authorities (LAAs).

**RAIL.** The two national railways, CN Rail (a Crown corporation) and CP Rail (a private sector firm) together carry about three-quarters of all Canadian rail traffic.

Intercity passenger transportation services are provided by VIA Rail (also a Crown corporation). The rail industry owns, develops and operates its own infrastructure.

**HIGHWAY.** There are some 400,000 km of paved public highways and streets in Canada. Provincial and municipal governments are responsible for constructing, maintaining and financing roads and highways. Federal involvement in that area is mostly limited to the provision of financial assistance, to the provision/maintenance of international crossings and some federally-owned bridges, and to responsibility for less than 2% of highways, ie. certain roads in the Yukon and Northwest Territories and roads in national parks and other federal lands.

#### **System Operations and Maintenance**

**MARITIME.** The TC Marine Group/CCG provide short-and long-range aids to navigation, approval of structures, vessel traffic services, channel dredging, ice-breaking and ice control, ship safety services, search and rescue, marine pollution counter-measures and clean-up. Pilotage services are administered and provided by the four pilotage authorities. TC is also responsible for certain ferry and coastal shipping services.

**AIR.** The TC Aviation Group develops and operates the civilian air navigation system. It provides telecommunications and electronic systems and services, as well as aircraft services to the federal government. The Airports Group is responsible for the development, maintenance and operation of civilian airport facilities and services, including terminals, runways, roads, mechanical and electrical equipment.

**RAIL.** The NTA is responsible for the economic regulation of federally-regulated railways. The TC Railway Safety Directorate monitors railway equipment, infrastructure, operating practices and railway protection systems. It also provides funding for improvements to railway grade crossings.

**HIGHWAY.** Federal legislation related to highway transportation is concerned with trade and safety regulations as opposed to highway regulation which is the responsibility of the 10 Provinces and two Territories. The federal government has authority to regulate extra-provincial trucking and passenger bus firms. The

administration of the regulations has, however, been delegated to the provincial transport boards. Federal bridge ownership and maintenance programs are mainly related to the St. Lawrence Seaway and to the provision of international connections. Each jurisdiction is responsible for constructing, maintaining and operating their roads to their own standards.

### **Environmental protection**

**GENERAL.** The Canadian government's Code of Environmental Stewardship requires federal departments and agencies to meet environmental laws, regulations, standards and codes. Preservation of the ecology, heritage sites, resource conservation measures are all included under this general Code and as separate elements of Canada's environmental umbrella, the Green Plan.

Two federal acts, the Canadian Environmental Assessment Act (CEAA) and the Canadian Environmental Protection Act (CEPA), further guide departmental actions. The CEAA requires an environmental screening of all departmental policy, program and regulatory decisions, and, where necessary, and as established under the Act, the development of all aspects of the use, including transportation, of hazardous commodities. It complements the regulations administered by TC under the Transportation of Dangerous Goods Act 1992.

TC collaborates with other government jurisdictions in Canada, and with other transportation interests, in the development of environmental policies and action plans, including the harmonization of federal/provincial regimes. The department also participates in the administration of such multi-departmental intergovernmental initiatives as the Nitrous Oxides (NOx) - Volatile Organic Compounds (VOCs) Management Plan conceived and implemented under the aegis of the Canadian Council of Ministers of the Environment. Each operational Group within TC has developed and is implementing action plans to improve waste management, conserve resources and to clean-up past pollution and prevent future pollution.

**AIR.** The Aviation and Airports Groups regulate noise and aircraft emissions under the Aeronautics Act. Canada has adopted regulations promulgated by the International Civil Aviation Organization (ICAO) as the basis for its regulations in these areas.

**HIGHWAY.** Under the general authority of the Motor Vehicle Safety Act, TC administers an industry/government program of voluntary standards for vehicle emissions. These are backed up by the yet unproclaimed Motor Vehicle Fuel Consumption Standards Act.

**RAIL.** Under the CEPA, railways must conduct environmental impact assessments with respect to construction projects. They are also responsible for decommissioning of railway sites and clean-up.

**MARINE.** Like other countries, Canada has yet to regulate marine emissions nationally. Current standards for land gasoline and light diesel engine emissions are reflected in marine versions of these engines. It is expected that the development of further reduced emissions standards for surface heavy diesels will result in the transfer of emitting engine technology to the marine mode. The CCG is responsible for such regulation. It also regulates waste management, ocean dumping and related marine environmental concerns, oil tanker safety, and provides emergency and clean-up services.

### **Safety and Security**

**GENERAL.** The regulation of safety and of security is the primary objective of TC. Two-thirds of TC's 21,000 employees are directly involved in safety. The Department maintains and enhances transportation safety and security by setting policy, undertaking legislative/regulatory actions, and conducting inspections. Of particular interest is the development of a comprehensive policy on substance use in safety sensitive jobs, as well as the Transportation of Dangerous Goods program which ensures compliance with existing regulations through awareness, inspection and enforcement activities. A 24-hour emergency advice centre, CANUTEC, responds to calls for advice on actions to take in emergency situations, or information on the transportation of dangerous goods regulations and the properties of chemicals transported.

**AIR.** The main objective of the TC Aviation Group is to ensure a safe national civil air transportation system, to attend to the development and operation of the air navigation system for the efficient and safe movement of aircraft and to contribute to the safety and efficiency of Canadian aircraft, operating in international and foreign airspace. The Airports Group ensures the availability and reliability of a safe, secure and efficient national civil airports network.

**RAIL.** Safety of the surface transportation infrastructure is the primary objective of the TC Surface Group. Railway safety is performed through the development and implementation of policies and programs concerning the monitoring and inspection of railways equipment, operations and engineering, and the conduct of safety programs.

**HIGHWAY.** Under the Motor Vehicle Safety Act, TC develops and enforces the motor vehicle safety regulations which specify technical safety requirements for vehicle performance and equipment. Manufacturers and importers must certify that all new vehicles offered for sale in Canada comply with the applicable safety regulations in effect on the date of manufacture. TC also conducts testing, promotes road-safety concepts, conducts related research and collects information on highway accidents.

**MARINE.** The CCG is responsible for the safety of the marine navigation system and provides search and rescue, ship safety services (administration and enforcement of regulations pertaining to ship safety and vessel-source pollution), administration of occupational safety and health, and marine emergencies.

## **Standards**

**AIR.** The Aviation and Airports Groups issue policies, standards and procedures pertaining to aircraft and related systems, licensing and certification of aviation personnel, aircraft and commercial operators, security, airport construction, operation and maintenance, and other areas. They also ensure compliance with operating or manufacturing standards and regulations.

**RAIL.** The Railway Safety Directorate develops railroad standards geared mostly at safety.

**HIGHWAY.** The Surface Group develops and enforces vehicle standards. Standards for highway construction and maintenance are produced by the provincial governments. Transport Canada cooperates with the provinces and municipal governments through the Transportation Association of Canada (TAC) to produce nationally recognized codes of practice such as: Manual of Uniform Traffic Control Devices for Canada; Manual of Geometric Design Standards for Canadian Roads and Streets; Illumination Manual; etc. TAC is a non profit, 550-member association representing the federal government, provincial and territorial governments, municipal governments, consultants, contractors, manufacturers, distributors, shippers, research institutes and other groups.

**MARITIME.** The CCG is responsible for developing, promulgating and implementing marine regulations and standards to contribute to marine safety and environmental protection, and to ensure workplace safety in the marine industry.

### **III. Describe how your transportation system is organized between national, regional, and local governments. Discuss the intergovernmental relationships by transportation mode.**

**GENERAL.** In very general terms, the federal government has jurisdiction over extra-provincial transport and provides financial support, as appropriate, to key elements of the national network including interprovincial ferry operations, the Canada Ports Corporation, VIA Rail passenger services, western grain transportation and the St. Lawrence Seaway. Intra-provincial transportation systems are the responsibility of provincial governments. Some programs do however involve joint federal-provincial cooperation in the delivery of services such as the transportation of dangerous goods.

**MARITIME.** With the exception of intra-provincial ferry services which are a provincial responsibility, the marine sector is generally under federal control. Cooperative agreements with local authorities, such as police forces, are in place for activities such as pleasure boating, safety promotion, etc.

**AIR.** The federal and provincial governments enter into agreements covering federal subsidies to municipalities for infrastructure development at airports of significance to the national air transportation program. TC Airports also provide financial assistance for capital projects at local and local commercial airports.

**RAIL.** No formal relationships exist between federal and provincial jurisdictions. Railway companies with infrastructures situated totally within provincial boundaries are usually provincially regulated. Close federal-provincial consultations do take place under the aegis of TAC on key issues such as grain transportation and the definition and needs of the National Rail Network.

**HIGHWAY.** Provincial governments have complete authority over vehicle maintenance and operation, including regulation of vehicle owners and drivers, policing of traffic, controlling weight and size limits, and enforcing safety regulations. Although the federal government has no formal authority to force provincial or territorial actions in road safety matters, it works cooperatively with the provinces and territories, through the Canadian Council of Motor Transport Administrators (CCMTA), to ensure a high and uniform level of safety in all aspects of road transportation of Canada (National Safety Code).

IV. Identify the operations and services within your transportation modes that are performed by private or semi-private organizations.

**MARITIME.** Shipping services are essentially provided by private sector firms. Various ferry operations, both private and public, receive operating subsidies from the federal and provincial governments to provide services, sometimes under contractual basis. Most port entities are government owned and often act as landlords with private sector operators who provide the investment in facilities such as terminals, grain elevators, etc. Ports in the Canada Ports Corporation system, which handle nearly half of the overall Canadian traffic, function with a high degree of autonomy and are administered according to common commercial principles.

**AIR.** Canadian air carriers are private companies. In keeping with its commercial orientation for the management of airports in Canada, TC is increasingly looking at private sector involvement or local governments or consortia of both sectors in the development and operation of airports. To date, transfer agreements have been concluded with local airport authorities at Vancouver, Calgary, Edmonton, Montreal and Toronto Airport.

Noteworthy is Terminal 3 at Toronto Airport: this project, which represents a \$550 million investment in airport infrastructure with less than \$9 million in government expenditures, has been financed, designed and constructed and is being operated by the private sector.

**RAIL.** Passenger transportation services are essentially provided by semi-private (Crown corporations) organizations; freight transportation services are provided by private and semi-private organizations. To rationalize and improve productivity, railways are discussing with potential short-line operators (individuals or groups) the transfer of marginal lines where private operators might have better commercial opportunities.

**HIGHWAY.** Most trucking and intercity passenger transportation services are provided by private companies.

V. Place an appropriate check by each part of your transportation industry to describe its most common form of ownership or administration

	<u>Federal</u>	<u>Regional</u> <u>/local</u>	<u>Private</u>	<u>Semi</u> <u>public</u>
1 Port authorities	X	X	X	X
2 Port operations	X	X	X	X
3 Ocean carriers			X	
4 Inland waterway carriers			X	X
5 Airlines			X	
6 Airport authorities	X	X		
7 Airport operations	X	X	X	
8 Air traffic control	X			
9 Railroad freight			X	X
10 Railroad passenger			X	X
11 Railroad commuter		X		
12 Highway construction		X	X	
13 Highway maintenance	X	X	X	
14 Other				

VI. Provide an overview of new policy directions, major programs and projects, and new products that will make your transportation system more efficient.

**GENERAL.** TC will continue with legislative/regulatory actions to comply with its safety mandate, including in the field of transportation of dangerous goods, to enhance protection of the environment from transportation accidents. The Department will also simplify regulations where feasible and regulate by performance standards where possible.

**MARITIME.** Work will continue toward increased tanker safety and marine spills response capability; to implement the CCG's fleet restructuring plan; to review the structure and competitiveness of port regimes and ensure a high degree of commercial freedom, fair competition and equal opportunities.

**AIR.** The Department will continue to transfer the management and operation of airports to Local Airport Authorities where possible under the approved framework; to transfer small airports through sale or lease to private interests or other levels of government; to pursue airport self-sufficiency by offering a greater variety of goods and services and entrenching a commercial enterprise/customer service attitude and business philosophy; to adjust the air traffic control system and modernise the air navigation system to cope with current and future demand; and to develop regulations governing air carrier-related computer reservation systems to enhance fair competition and fair treatment of consumers.

**RAIL.** Railway safety activities have contributed to the overall improvement in the accident record in the Canadian railway industry. Improvement of safety conditions at railway/highway crossings will continue to be a high priority. TC, in cooperation with the Quebec and Ontario provincial governments, is studying the feasibility of establishing a high speed rail link in the Quebec City - Windsor corridor.

**HIGHWAY.** A major national program to upgrade the National Highway System is under study. Costs to upgrade the portion of the system now below minimum standards have been estimated at \$14 billion. The federal and provincial governments are now considering possible cost-sharing scenarios and formulas. The governments have also launched cost-shared Strategic Capital Investment Initiatives, with federal funding of \$945 million for the transportation sector (\$835 million for highways). Motor vehicle emission regulations will be reviewed to phase in more stringent standards. The Department will also facilitate the establishment of efficient intermodal systems for containerized freight movements.

## FINANCING

- VII. Identify the methods (e.g., user fees, licence fees, tolls, taxes), mechanisms, and institutions (e.g., national government, multilateral organizations) that provide funding for transportation infrastructure projects.

**GENERAL.** The most common methods of financing for transportation infrastructure projects are general taxes, user fees, commercial loans, subsidies and grants. Revenues from user fees can take the form of tolls, facility leases, equipment rentals, concession fees, wharfage, etc. Semi-public, provincial/local and private transportation infrastructure construction and modernization projects can use any or a variety of the funding methods described above.

From time to time, the federal government makes non-budgetary loans, investments and advances to Crown corporations and other corporations in which it has an interest. These loans are repayable in full with interest.

**MARITIME.** Revenues and recoveries from the TC Marine Group/CCG totalled \$41.4 million in 1990-91, representing about 6% of total costs incurred. Major revenue sources are wharfage and harbour dues, arctic resupply operations, ship safety and registration tariffs. Harbour commissions, which operate with a high degree of self-sufficiency, can borrow from the federal government or private sources, and sell debentures, payable in not more than 40 years. Public harbours and ports operated by TC require direct subsidization.

**AIR.** Revenues from external sources for the TC Aviation and Airports Groups totalled \$1,060 million, representing about 80% of total attributable air mode costs. Major sources are:

- **Rentals, concessions and parking:** Rentals revenue comes from leasing building space (airline offices, ticket counters, etc.) and airport land to the airlines and general aviation. Concessions revenue comes from retail operations such as restaurants, car rentals, duty free, gift and other shops. These revenues are assessed as a percentage of sales and/or a guaranteed annual payment by a public tender process. Car parking facilities are generally operated under management contract. Parking fees are based on local parking rates.

- **Air Transportation Tax:** This tax is paid by the passenger at the time a ticket is purchased and is applicable to most commercial airline traffic. Revenue Canada Customs and Excise collects this tax and transfers equivalent funds to TC.

In 1990-91, TC's commitment to airport capital investments totalled \$150 million. An additional \$35 million was appropriated to grants and contributions. TC's Aviation's capital budget totalled \$238 million, of which \$219 was dedicated to major modernisation projects.

**RAIL.** Most rail infrastructure is owned and financed privately or semi-privately. Federal payments made to VIA Rail to subsidize passenger transportation are estimated to amount to some \$362 million in 1992-93. The federal government also subsidizes the costs of moving western grain to export ports by providing support directly to railways.

**HIGHWAY.** Although highways are under provincial jurisdiction, the federal government is involved in highways through cost-shared regional development/contribution programs and the management of certain highway facilities. Eight federal departments/agencies are involved in this regard with total annual expenditures of about \$300 million. Federal contributions towards provincial roads have averaged \$100 million over the past ten years. The federal government is working jointly with the provinces toward the rehabilitation of the National Highway System.



**VIII. What opportunities exist for foreign investment in your transportation infrastructure and services?**

**GENERAL.** Approval of the NTA is required for the acquisition of an interest of a least 10% of voting shares of a transportation business with assets or annual gross sales of over \$10 million. The NTA review is non-discriminatory since it applies to Canadians or foreigners. If such an acquisition is an investment reviewable under the Investment Canada Act, it has to be found of net benefit to Canada prior to being referred to the NTA.

**AIR.** Air carriers must be controlled in fact by Canadians, e.g., at least 75% of the voting interests must be owned and controlled by Canadians.

**RAIL.** Foreigners are allowed to invest in or own railways under federal jurisdiction (e.g. cross provincial or international borders). Railways under the authority of a provincial legislature are usually regulated by the concerned province.

**HIGHWAY.** Regulations on investment in road transport are non-discriminatory.

**MARITIME.** While cabotage is limited to ships owned by Canadian or Commonwealth companies, there are no restriction on who may hold the equity of these companies. Pilotage services are provided by Crown corporations and as such do not have private sector investment. Regulations limiting investment in port facilities by the private sector are non-discriminatory.

## ATTACHMENT 1

### **Canadian Federal Government Contact**

#### Transport Canada, Policy and Coordination

Tower C, Place de Ville,  
Ottawa, Ontario K1A 0N5  
Tel : (613) 998-1877

### **Transport Canada Modal Groups**

#### Marine Group/Canadian Coast Guard

Canada Building, 344 Slater Street,  
Ottawa, Ontario K1A 0N7  
Tel : (613) 998-1571

#### Airports Group

Tower C, Place de Ville,  
Ottawa, Ontario K1A 0N8  
Tel : (613) 990-3001

#### Aviation Group

Tower C, Place de Ville,  
Ottawa, Ontario K1A 0N8  
Tel : (613) 990-3838

#### Surface Group

Canada Building, 344 Slater Street,  
Ottawa, Ontario K1A 0N5  
Tel : (613) 998-1876

#### National Transportation Agency

Terrasses de la Chaudière, 15 Eddy Street  
Ottawa, Ontario, K1A 0N9  
Tel : (613) 997-9233

#### Transportation Safety Board of Canada

200 Promenade du Portage, P.O. Box 9120,  
Alta Vista Terminal, Ottawa, Ontario, K1G 3T8, 994-4318

#### Atlantic Pilotage Authority

5151 George Street, Suite 1203,  
Halifax, Nova Scotia, B3J 1M5  
Tel : (902) 426-2553

Laurentian Pilotage Authority  
1080 Beaver Hall Hill, Suite 1402,  
Montreal, Quebec, H2Z 1S8  
Tel : (514) 496-1501

Great Lakes Pilotage Authority Limited  
P.O. Box 95,  
Cornwall, Ontario, K6H 5R9  
Tel : (613) 933-2991

Pacific Pilotage Authority  
300-1199 West Hastings Street,  
Vancouver, British Columbia, V6E 4G9  
Tel : (604) 666-6771

Canadian National  
P.O. Box 8100,  
Montreal, Quebec, H3C 3N4  
Tel : (514) 399-5129

Canada Ports Corporation,  
99 Metcalfe Street,  
Ottawa, Ontario, K1A 0N6  
Tel : (613) 957-6700

St. Lawrence Seaway Authority  
360 Albert Street, Suite 1400,  
Ottawa, Ontario, K1R 7X7

VIA Rail Canada  
2 Place Ville Marie,  
Montreal, Quebec, H3B 2C9  
Tel : (514) 871-6000

Marine Atlantic Inc.  
Scales, Jenkins & McKuaid,  
65 Grafton Street,  
P.O. Box 2140,  
Charlottetown, P.E.I., C1A 8B9  
Tel : (902) 892-2485

Canartic Shipping Company Limited  
150 Metcalfe Street, P.O. Box 39,  
Ottawa, Ontario, K2P 1P1  
Tel : (613) 234-8414

Grain Transportation Agency  
200 Graham Ave.,  
Winnipeg, Manitoba, R3C 4L5  
Tel : (204) 983-3426

Agriculture Canada  
Sir John Carling Building,  
930 Carling Ave,  
Ottawa, Ontario, K1A 0C5  
Tel : (613) 995-8091

External Affairs and International Trade Canada  
Lester B. Pearson Building,  
125 Sussex Drive, Ottawa, Ontario, K1A 0G2  
Tel : (613) 993-4911

Revenue Canada  
Connaught Building, MacKenzie Ave.,  
Ottawa, Ontario, K1A 0L5  
Tel : (613) 957-8506

## ATTACHMENT 2

### PROVINCIAL AND TERRITORIAL GOVERNMENT CONTACTS

#### NEWFOUNDLAND

Department of Works, Services and  
Transportation  
Confederation Building East Block  
4th Floor  
P.O. Box 8700  
St. John's,  
Newfoundland A1B 4J6  
Tel : (709) 729-3676

#### NOVA SCOTIA

Department of Transportation  
& Communication  
4th Floor, Purdy's Wharf Bldg., Tower 2  
1969 Upper Water Street  
P.O. Box 186  
Halifax, Nova Scotia  
B3J 2N2  
Tel : (902) 424-4036

#### NEW BRUNSWICK

Department of Transportation  
2nd Floor, King's Place  
440 King Street  
P.O. Box 6000  
Fredericton, New Brunswick  
E3B 5H1  
Tel : (506) 453-2549

#### QUEBEC

Ministère des Transports  
28e étage  
700, boul. René-Lévesque Est  
Québec (Québec)  
G1R 5H1  
Tel : (418) 643-6740

#### ONTARIO

Ministry of Transportation  
Main Floor, East Bldg., Room 187  
1201 Wilson Avenue  
Downsview, Ontario  
M3M 1J8  
Tel : (416) 235-4449

#### MANITOBA

Department of Highways and  
Transportation  
Room 209, Legislative Building  
450 Broadway Avenue  
Winnipeg, Manitoba  
R3C 0V8  
Tel : (204) 945-3768

**PRINCE EDWARD ISLAND**

Department of Transportation  
and Public Works  
3rd Floor, Jones Bldg  
11 Kent Street  
P.O. Box 2000  
Charlottetown, P.E.I.  
C1A 7N8  
Tel : (902) 368-5130

**ALBERTA**

Department of Transportation  
and Utilities  
1st Floor, Twin Atria Building  
4999-98 Ave.  
Edmonton, Alberta  
T6B 2X3  
Tel : (403) 427-2081

**BRITISH COLUMBIA**

Ministry of Transportation and Highways  
Government of British Columbia  
5th Floor, 5B  
940 Blanshard Street  
Victoria, British Columbia  
V8W 3E6  
Tel : (604) 387-3280

**SASKATCHEWAN**

Department of Highways and  
Transportation  
12th Floor, 1855 Victoria Avenue  
Regina, Saskatchewan  
S4P 3V5  
Tel : (306) 787-4950

**NORTHWEST TERRITORIES**

Department of Transportation  
P.O. Box 1320,  
Yellowknife, N.W.T.  
X1A 2L9  
Tel : (403) 920-3460

**YUKON TERRITORIES**

Community and  
Transportation Services  
Government of the Yukon  
P.O. Box 2703  
Whitehorse, Y.T.  
Y1A 2C6  
Tel : (403) 667-5155

**PEOPLE'S REPUBLIC OF CHINA**

PEOPLE'S REPUBLIC OF CHINA

ADMINISTRATION

- I. List the national and regional (state) government authorities that administer and regulate your transportation industry with a contact office, address, and phone number.

The Ministry of Railways is the national government authority in charge of national railways. Contact office:

Department of Foreign Affairs  
10, Fuxing Road  
Beijing  
Tel : 3245865  
Fax : 3271065

China Local Railway Association is in charge of local railways.

102, Bei Feng Wo  
P. O. Box 100038  
Beijing  
Tel : 3245139

The Ministry of Communications is the national government authority in charge of maritime, ports, highways and inland water transport. Contact office:

Department of Foreign Affairs  
10, Fuxing Road  
Beijing  
Tel : 326544 ext. 2422 or 2462

The Provincial (Municipal) Bureaus of Communications are the regional government authorities responsible for maritime, ports, highways and inland water transport.

- II. Describe how the major transportation modes (i.e., maritime, aviation, rail, highway) are regulated by your national authorities. Discuss the general framework of regulation in the following areas.

**Infrastructure development**

**RAILWAYS.** The Ministry of Railways (MOR) acts as a responsible railway



authority of the State Council to administer and regulate every work of our national railways and to carry out the trade administration for local railways. MOR studies and formulates the railway development programmes in accordance with the development needs of our national economy and society and is concretely responsible for the construction of railway lines, stations and hubs for national railways and for the manufacture and purchase of locomotives, rolling stock and communication & signalling apparatuses. Local railways are planned and constructed by the communication departments under the local people's government in accordance with the development needs of local economies, whereas MOR provides instruction, coordination, supervision and assistance.

### **System and operation and maintenance**

**RAILWAYS.** MOR is responsible for the study and formulation of strategies plans, policies, rules and regulations for the railway development of the country, as well as for their implementation. MOR executes highly centralized and unified traffic control over the railroad transportation of the country, and organizes passengers and freight transportation within the whole railways based on the transportation policies and ordinances of the country. The maintenance and repair work for transportation equipment of our national railways is also organized and arranged by MOR.

### **Environmental Protection**

**RAILWAYS.** Health Protection Department of MOR administers the environmental protection with the whole railways and is responsible for preparing and regulations of environmental protection for railways as well as for supervising their implementation. MOR organizes the work of environmental monitoring and of pollution prevention and control in the vicinity of railway lines in accordance with the requirements set forth by the State Environment Protection Department.

### **Safety and security**

**RAILWAYS.** MOR has set up a special organization (Safety Supervision Department), who is responsible for the safety work of the railways of the country, supervises and inspects the implementation by various units related to MOR of policies and ordinances concerning the safe regulations set forth by the State and MOR, and is also responsible for formulating and implementing various rules and regulations pertaining to safe traffic and accident handling of the railways. The transportation of hazardous goods is to be handled as per the regulations of MOR and the names of hazardous goods are set forth by MOR and announced to the public.

MOR has public security departments under it, who share out the work and coordinate with local public security departments in a joint effort to maintain the security order within railways.

## **Standards**

**RAILWAYS.** Safety and technical standards of railways are formulated by MOR.

### **Road and water transport.**

The Ministry of Communications acts as a responsible authority of the State Council for organizing and regulating all road and water transportation in China, i.e., management of road and water transport industries. Its main functions:

- formulating development strategies and policies of water and road transportation of the whole country;
- organizing the planning of road and water transport, programming the annual transport and construction, inspecting the performances of transport and construction;
- formulating and issuing rules and regulations related to road and water transportation, and inspecting the implementation;
- managing the water transport safety superintendence surveying of vessels and floating facilities, rescue/salvage, maintenance and management of waterways and roads;
- providing information services for all road and water transport sector;
- formulating the technical polices, technical codes and standards of road and water transportation, organizing the major technical research, etc.

### III. Describe how your transportation system is organized between national, regional, and local governments. Discuss the intergovernmental relationships by trade mode.

**RAILWAYS.** There are 53000 kilometers of railways lines for the national railways within the country, which are owned, operated and administered by MOR. In addition, there are 4400 kilometers of local railway lines, which are operated by the transportation enterprises affiliated to the communication departments of provinces, municipalities and autonomous regions in their respective localities. Local railways need to consult MOR and pay certain amount of fees when their passenger and freight transportation uses the railway lines, stations, locomotives and rolling stock belonging to the national railways.

### **Road and water transport.**

The provincial (municipal) bureaus of communications are in charge of maritime, ports, roads and inland water transport in the provinces and municipalities. Those authorities execute the strategies, planning, policies and standards, rules and

regulations promulgated by the Ministry of Communications, and formulate specific planning, standards and regulations, etc. for their provinces and municipalities. In terms of administration, those bureaus belong to the provincial (municipal) governments. The Ministry of Communications also consults the provincial (municipal) bureaus of communications in the formulation of planning, policies, technical codes/standards and rules/regulations. The affiliated institutions of the ministry are responsible for the management and maintenance of trunk waterways. In addition, the ministry is in charge of the balance of total transport capacity and the capacity of transport between provinces.

IV. Identify the operations and services within your transportation modes that are performed by private or semi-private organizations.

**RAILWAYS.** There exists no private or semi-private railway enterprise in China.

**Road and Water Transport**

In China, the private/semi-private organizations are allowed to carry out the transportation of maritime, road and inland water transportation. Since starting our economic restructuring in 1978, the private transport organizations have developed rapidly. At present, they have an important share in road and water transport, Now the road and water transport market with ordered management and fair competition has been basically formed. According to the statistics in 1989, freight transport by the private organizations in road accounted 30.7% passenger transport for 28.7%; freight transport by private organizations in water transport accounted for 32.8% and passenger transport for 28.9%.

V. Place an appropriate check for each part of your transportation industry to describe its most common form of ownership or administration.

	<u>National</u>	<u>Regional</u> <u>/local</u>	<u>Private</u>	<u>Semi</u> <u>public</u>
1 Port authorities		X		
2 Port operations		X		
3 Ocean carriers	X	X		
4 Inland waterway carriers	X	X	X	X
5 Airlines				
6 Airport authorities				
7 Airport operations				
8 Air traffic control				
9 Railroad freight	X			
10 Railroad passenger	X			
11 Railroad commuter	X			
12 Highway construction	X	X	X	
13 Highway maintenance		X		
14 Other				

- VI. Provide an overview of new policy directions, major programs and projects, and new products that will make your transportation system more efficient.

**RAILWAYS.** The main tasks for the Chinese railways in 90's are to speed up the railway net construction, to promote technology progress, to increase the transportation capacity and deepen the mechanism reform. It is planned that the railway freight traffic volume should reach 1.65 billion tons and 1.9 billions tons by 1995 and 2000 respectively. The key projects for railway net construction are the double-line construction for Lan-Xin Line, Jiao-Liu Line, Zhe-Gan Line, Bao-Cheng Line, etc.; and the new line construction of Jing-Jiu Line, Bao-Zhong Line, Nan-Kun Line, the 2nd stage of Da-Quin Line, etc. Upon the completion of the above projects, the railway transportation capacity will be greatly increased. The modernization level of our railways will be continuously raised up and the service quality of railroad passenger and freight transportation be improved in 90's by adhering to the development strategy of "Vitalizing the railways with science and technology" and by laying stress on the research work of and popularizing the following technologies, namely, heavy-haul and its associated technology, high-speed technology for passenger transportation, integrated atomization technology for marshalling station, train safe-running guarantee technology, information technology and new technologies concerning railway construction. The railways will be gradually put into market through the continuous deepening of railway reforms and shift-over of operational mechanism of the railways.

#### **Road and water transport**

The future development goals:

- Main highway framework -- national important highway network consisted of expressways, first and second class highways.
- Main waterborne transport corridors -- waterborne transport network composed of coastal transport lines from north to south and 1,000 kilometer inland waterways navigatable 1,000 DWT barges.
- Main transport hubs -- ports and road terminals which are the conjunctions of the main framework and main waterborne transport corridors and have the functions of handling, storage, transshipment, multi-modal transport, transport management and transport forwarding. The priorities are put on the construction of 90 hub ports and road terminals.
- Transport supporting system -- system with traffic safety services, telecommunication, information, salvage, training and scientific research.

The 8th Five-Year Plan (1991-1995)

- Highways: the priorities will be put on the construction of national trunk line highways which have important influence on the national economy or where highways can not meet the requirements of the social and economic

development in order to complete some high class highways. In the meantime, we will reconstruct the roads around large cities and entrance roads to some large and medium cities, develop provincial trunk highways and improve the conditions of rural roads. We will also start to construct several main road terminals in the central cities developed in economy in accordance with the construction of national main trunk lines to make the national main trunk lines plan an appropriate role.

- Sea ports: key points are put on those for three transport systems coal, container and ro-ro between the mainland and islands.

- Inland water transport: priorities are put on the construction infrastructure for main waterborne transport corridors, the downstream sector of the Yangtze River from Wuhan, Xijiang River and the Grand Canal, the fairways in the riverine areas and the construction of harbors and waterways in poor areas.

- Transport supporting system: basically solve the problem of insufficient transport telecommunication to have maritime telecommunication be able to perform the global ship safety telecommunication imposed by IMO. In important coastal waters, ports, the mouths of the Yangtze River and Pearl River, a relative completed navigation security system and vessel traffic control system with different levels will be established and coastal lighthouse link will be constructed. At the same time, the capacities of fire-control, rescue and pollution prevention will be strengthened.

## FINANCING

II. Identify the methods (e.g., user fees, license fees, tolls, taxes), mechanisms, and institutions (e.g., National government, multilateral organizations) that provide funding for transportation infrastructure projects.

**RAILWAYS.** The main sources of funding for construction projects of national railways are as follows:

- Fund accumulated by MOR;
- Fund levied for railway construction;
- Loan from domestic banks;
- Foreign loan;
- Issuance of bonds.

Local railroads are funded and constructed by local governments in recent years, local governments, in consideration of their needs to develop local economies, have contributed certain amount of money in a joint investment with MOR to construct some new railway lines, passenger stations, goods yards, etc.

### **Road and water transport**

Fund sources for road construction:

- state investment
- local government investment
- loans
- tolls
- user fees

Fund sources for water transport construction:

- state investment (waterways)
- loans (vessels, ports)
- tolls (partly, mainly for management and maintenance)

VII. What opportunities exist for foreign investment in your transportation infrastructure and services?

**RAILWAYS.** The State encourages the use of foreign investment in the construction of railways. Foreign funds can be used in line construction, existing line renovation, locomotive & rolling stock purchase, etc.

### **Road and water transport**

According to new policies for the transport development by the Ministry of Communications, the road construction of joint venture and wholly owned venture is encouraged. The construction and operation of joint venture for public terminals and berths are encouraged. The jointly-operated handling, storage, dis-packing, packing and related domestic road/water freight/passenger transport are allowed. The sino-foreign joint renting of terminals is allowed. The construction of specialized industrial terminals and waterways with wholly foreign owned investment is allowed.

Upon approval, the road/water transport enterprises of joint venture for coastal, river and road transport in China are allowed to be developed appropriately. At the same time, based on the principle of reciprocity, foreign shipping companies are allowed to open wholly-owned/joint venture agent companies in China to operate in the export/import cargo collection, issuance of lading bills, settlement of exchange and signing the contract for their own vessels.

**HONG KONG**



## HONG KONG

### ADMINISTRATION

- I. List the national and regional (state) government authorities that administer and regulate your transportation industry with a contact office, address and phone number.

#### MARITIME

Marine Department  
Harbour Building  
38 Pier Road, Hong Kong  
Tel : 852 3001  
Tlx : 64553 MARHQ HX  
Fax : 544 9241

**LAND.** The Transport Branch of Hong Kong Government Secretariat is responsible for overall policy formulation, direction and co-ordination of internal transport matters. Under the Transport Branch, the Transport Department and the Highways Department execute the transport policies and measures.

The contact person is :

Mr Raymond Kong  
Senior Engineer (Transport Planning)  
1/F., Transport Branch  
East Wing, Central Government Office  
Lower Albert Road, Hong Kong  
Tel : (852)-810 2118  
Fax : (852)-596 0734

The Transport Department of Hong Kong Government is responsible for administering the Road Traffic Ordinance and legislation regulating public transport operations other than railways. Its responsibilities cover strategic transport planning, the regulation of internal road and waterborne public transport and the management of vehicle parking. The Department is also responsible for the licensing of drivers and the registration, licensing and inspection of vehicles.

The contact person is :

Mr. S.C. Lee  
Assistant Commissioner for Transport/  
Technical Services and Planning,  
41/F., Transport Department  
Immigration Tower, 7 Gloucester Road  
Wan Chai, Hong Kong  
Tel : (852)-829 5216  
Fax : (852)-824 0433

The Highways Department of Hong Kong Government is responsible for implementation of highways projects. This involves planning, investigation, design and supervision of the construction of roads and strategic links. It maintains the integrity of the road network and controls road openings by utilities. The department also assist in the formulation and subsequent implementation of a railway development strategy.

The contact person is

Mr. H. I. Kwong  
Technical Secretary  
5/F, Highways Department  
Homantin Government Offices  
88 Chung Hau Street  
Homantin, Kowloon  
Tel : (852)-762 3304  
Fax : (852)-714 5216

#### **CIVIL AVIATION**

Civil Aviation Department  
46/F Queensway Government Offices  
66 Queensway  
Hong Kong  
Tel : 852 867 4332  
Fax : 852 869 0093  
Tlx : 61361 CADHK HX  
AFTN: VHHYAYX

- II. Describe how the major transportation modes (i.e. maritime, aviation, rail, highway) are regulated by your national authorities. Discuss the general framework of regulation in the following areas:

### **Infrastructure Development**

**MARITIME.** The Marine Department, headed by the Director of Marine, is responsible for all navigational matters in Hong Kong and safety standards in all classes and types of vessel.

**LAND.** The strategic rail and highway infrastructure development programme is formulated based on the outcome of territorial transport planning studies taking account of the projected territory land use development, the projected economic growth, the future transport system, transport policies, trip-making characteristics and projected international traffic. The proposed strategic infrastructure development programme is reviewed from time to time in territorial transport planning studies in a comprehensive manner with a view to producing an integrated and up-to-date transport development programme for the Territory.

**CIVIL AVIATION.** The Technical and Planning Division of the Civil Aviation Department is responsible for the planning of facilities at the Hong Kong International Airport, co-ordinating with the works departments on the design of the facilities, procuring civil aviation electronic equipment for the Hong Kong International Airport at Kai Tak and for the new airport at Chek Lap Kok.

### **System Operations and Maintenance**

**MARITIME.** The main functions of the Marine Department are : -

- to facilitate the safe and expeditious movement of ships, cargoes and passengers within Hong Kong waters;
- to ensure compliance with international and local safety and marine environmental protection standards in respect of ships registered and licensed in Hong Kong, and using Hong Kong waters;
- to administer the Hong Kong Shipping Register, and develop policy, standards and legislation for safety, environmental protection and manning aspects in line with international conventions;
- to ensure compliance with international and local requirements on the competency of seafarers in respect of ships registered and licensed in Hong Kong, and using Hong Kong waters, and to regulate the registration and employment of Hong Kong seafarers;
- to co-ordinate maritime search and rescue operations within Hong Kong's international area of responsibility and ensure compliance with international conventions;

- to combat oil pollution in Hong Kong waters, collect vessel, generated refuse and scavenge floating refuse in specified areas of Hong Kong waters; and
- to provide and maintain the government vessels that departments need to conduct their business.

**LAND.** The majority of public roads, including the traffic aids and other street furniture, are maintained by Highways Department. It involves also the maintenance and minor improvement to roads; reconstruction or rehabilitation of roads; dealing with the impact on the road network caused by emergencies; and the coordination and control of utility work on public roads. As regards road tunnels, maintenance is carried out by the respective operators.

Traffic flows are regulated by means of traffic light signal systems. Those falling in the computerized Area Traffic Control system are operated and maintained by the Traffic Control & Surveillance Division of Transport Department. Other traffic light signals are operated and maintained by Electrical & Mechanical Services Department.

The Mass Transit Railway is operated by the Government owned Mass Transit Railway Corporation. Likewise, the Kowloon-Canton Railway and the North-west New Territories Light Rail Transit are operated by the Kowloon-Canton Railway Corporation, also wholly owned by the Government. The tramway on the north shore of the Hong Kong Island and the Peak Tram are respectively operated by the Hong Kong Tramways Ltd. and the Peak Tramways Co. Ltd. As regards franchised bus services, there are four companies providing services, namely the Kowloon Motor Bus Co. Ltd., the China Motor Bus Co. Ltd., Citybus Ltd. and New Lantao Bus Co. Also, ferry services are operated by Star Ferry Co. Ltd., Hong Kong Yaumati Co. Ltd. and other minor operators. In addition, minibus and taxi are operated by individual operators. There are provisions in the law for regulating the operation and maintenance of such services.

**CIVIL AVIATION.** The Airport Management Division of the Civil Aviation Department is responsible for the operation of airport facilities at the Hong Kong International Airport and the co-ordination with the works departments on the maintenance of these facilities. The Technical and Planning Division of the Department is responsible for the operation of the Aeronautical Fixed Telecommunication Network and the maintenance of electronic equipment (including air traffic control facilities). The Air Traffic Management Division is responsible for the provision of air traffic services within Hong Kong Flight Information Region.

#### **Environmental Protection**

**MARITIME.** Hong Kong is a party to the 1973/1978 MARPOL Convention which is given effect to by the Merchant Shipping (Prevention and Control of Pollution) Ordinance.

**LAND.** Environmental impact assessments of major transport infrastructure are included in both territorial transport planning studies and the engineering feasibility study of each individual project. Environmental costs and benefits are taken into consideration in the evaluation of transport infrastructure projects and formulation of the project development programmes. Where applicable, mitigation measures to reduce adverse environmental impacts are recommended. Environmental Protection Department of Hong Kong Government is consulted at different stages of planning with a view to minimizing possible adverse impact of the project. The Vehicles Smoke Control Programme operated by the EPD vehicle inspection centres helps ensure that the proper and regular maintenance of vehicles necessary to keep emissions to a minimum is carried out.

**CIVIL AVIATION.** The Civil Aviation Department is responsible for the enforcement of the Civil Aviation (Aircraft Noise) Ordinance which controls the emission of noise by aircraft in Hong Kong. The Environmental Protection Department provides technical advice and assistance to the Civil Aviation Department on environmental protection matters.

### **Safety and Security**

**MARITIME.** The Marine Department enforces international safety standard for regulation of ships registered in Hong Kong and those using Hong Kong waters, including shipping casualty investigations, survey of foreign-going ships and local craft and the examination, certification and discipline of Hong Kong seafarers. The Marine Police provides round-the-clock security services in the waters of Hong Kong.

**LAND.** The Road Safety and Standards Division of Transport Department is responsible for investigating causes of road accidents and formulating accident prevention measures as well as road safety strategies and policies. Accident prevention measures are implemented by Transport Department and Highways Department, and the subsequent after studies are carried out by Transport Department. Also vehicles are inspected by Transport Department to ensure that safety standards are complied with. The Royal Hong Kong Police Force is responsible for the enforcement of the Road Traffic Ordinance in respect of safety and security.

**CIVIL AVIATION.** The Safety Regulation Division of the Civil Aviation Department is responsible for regulating the operational safety and airworthiness of all aircraft registered in Hong Kong and for monitoring the procedures and practices of both air traffic control and aerodrome management. The Security Branch is responsible for formulating government security policies, while the Airport Management Division of the Civil Aviation Department is responsible for ensuring that defined security standards are maintained.

## **Standards**

**MARITIME.** Hong Kong is an associate member of the International Maritime Organisation. Most of the international conventions applicable to shipping have been

applied to Hong Kong by regulations made under the Merchant Shipping Ordinances. The regulations do not go beyond the standards required by the international requirements.

**LAND.** The Road Safety and Standards Division compile a comprehensive Transport Planning and Design Manual, providing guidelines on highway design, traffic signs and road markings, traffic signals, accident investigation, surveillance, surveys and public transport. These standards are used for the design of public roads, transport planning and traffic management. The Research and Development Division of Highways Department compiles a series of Road Notes providing standards on highway construction. These standards are used for the design of public roads.

**CIVIL AVIATION.** The Civil Aviation Department is responsible for ensuring that all the international standards and practices, in particular those laid down by the International Civil Aviation Organization, are met.

III. Describe how your transportation system is organized between national, regional and local governments. Discuss the inter-governmental relationships by transportation mode.

**MARITIME.** Hong Kong is an associate member of the International Maritime Organization. Surveys of ships are conducted in accordance with standards laid down in international conventions. The Marine Department manages the operation of two ferry terminals in Hong Kong which provide ferry services to Macau and various ports in China.

**LAND.** There is no distinction between national, regional and local governments in respect of organizing the transportation system. Hong Kong Government is the only Government responsible for managing all transportation modes.

**CIVIL AVIATION.** The Economic Services Branch is responsible for formulating policies on Hong Kong's air transport system and for conducting air services negotiations with foreign governments. The Civil Aviation Department is responsible for the day-to-day administration of air services matters, the management of the Hong Kong International Airport and the management of air traffic within Hong Kong's airspace.

IV. Identify the operations and services within your transportation modes that are performed by private or semi-private organizations.

**MARITIME.** For the survey of Hong Kong registered ships, the Marine Department has authorized seven international classification societies, namely American Bureau of Shipping, Bureau Veritas, China Classification Society, Det Norske Veritas, Germanischer Lloyds, Lloyd's Register of Shipping and Nippon Kaiji Kyokai to undertake most of the surveys and issue safety certificates.

Other services provided by private organization include operation of container terminals, oil terminals, passenger terminal, stevedoring, towage, pilotage, local passenger ferry services and River Trade passenger services.

**LAND.**

- Buses-public and private
- Ferries
- Tramways
- Peak tram (funicular)
- Light buses-public and private
- Taxis
- Road tunnels (operation and maintenance)

**CIVIL AVIATION.** The operation of air services to and from Hong Kong is conducted by commercial airline companies, of which 3 are based in Hong Kong. In addition, there are a number of private companies providing various types of aircraft and ground services at the Hong Kong International Airport, e.g. the Hong Kong Air Terminal Services Ltd, the Hong Kong Aircraft Engineering Company Ltd, the Hong Kong Air Cargo Terminals Ltd, the ground handling agents, the oil companies and the catering companies.

V. Place an appropriate check by each part of your transportation industry to describe its most common form of ownership or administration.

	<u>National</u>	<u>Regional / local</u>	<u>Private</u>	<u>Semi-Public</u>
1 Port authorities	x			
2 Port operations			x	
3 Ocean Carriers			x	
4 Inland waterway carriers			x	
5 Airlines			x	
6 Airport authorities		x		
7 Airport operations		x		
8 Air traffic control		x		

	<u>Gov't</u>	<u>Gov't owned Corporations</u>	<u>Private</u>
Railroad freight :			
Kowloon Canton Railway		x	
Railroad passenger & Railroad commuter :			
Kowloon Canton Railway		x	
Mass Transit Railway		x	
Hongkong Tramways			x
Peak Tramway			x
Highway construction	x		x
Highway Maintenance	x		x

Hong Kong has no port authority. The Hong Kong Government's Marine Department regulates the port, provides aids to navigation, government mooring buoys, public cargo handling areas, and operates a vessel traffic service. The Port Development Board advises on the scope and nature of future port infrastructural development.

VI. Provide an overview of new policy directions, major programmes and projects, and new products that will make your transportation system more efficient.

The Port Development Board is a non-statutory body formed in April 1990 to advise the Governor on all aspects of port planning and development.

The Board is responsible for :

- advising on strategic port needs
- listening to the views of port users
- acting on those views where necessary
- maintaining the regional competitiveness of Hong Kong's port
- co-ordinating government and private sector involvement in planning and development

The Board assesses development needs in the light of changing demand, port capacity, productivity, performance and competition both locally and regionally. It recommends strategies for creating new port facilities and brings together government and private sector involvement in the formulation of advice on their development. The Board also acts as a focal point for ideas and opinions expressed by port operators and others involved in port expansion.

Detailed design work is now underway for a new port on Lantau Island. This will consist of 17 berths to open between 1997 and 2011 on linked artificial islands forming two port basins linked by a transport corridor. There is scope for expansion to 25 berths.



The Port Cargo Forecasts confirm in detail the urgent need for the new facilities at Lantau Port if Hong Kong is to cope with the demands of its own, and China's booming economies.

To cope with the growing demands, the government plans to lease an area of land at Tuen Mun for the development by the private sector of Hong Kong's first River Trade Terminal (RTT) specifically designed to handle river cargoes.

The first phase should begin operation by late 1997.

- VI. Provide an overview of new policy directions, major programmes and projects, and new products that will make your transportation system more efficient.

### **MARITIME**

**LAND.** The Government's transport policy is founded on the following three main principles set out in the White Paper on Transport Policy published in 1990. These are :-

- a) improving the transport infrastructure;
- b) expanding and improving public transport;
- c) managing road use.

The Government is committed to implementing the major highway projects included in the Airport Core Programme in the next few years. These include the Lantau Fixed Crossing, North Lantau Expressway, Route 3 trunk road, West Kowloon Expressway and Western Harbour Crossing. In addition to serving the new airport at Chek Lap Kok, these projects will also help relieve the traffic congestion on the existing road system. In the longer term, a transport infrastructure development programme has been formulated for the period up to 2011 to meet the projected growth in transport demands for freight and passengers.

The Government will also continue to improve and develop public transport services. Emphasis will be placed on more and better use of the efficient mass carriers, especially the off-street rail modes to reduce pressure on the road network. In this connection, the Airport Railway is included in the Airport Core Programme. Also, a railway development strategy is being formulated for passenger and freight rail transport.

Road use management measures will continue to be employed to alleviate traffic congestion. One of the objectives of managing road use is to make effective use of road spaces. Effective use of road space has been achieved by :-

- traffic engineering and management measures;
- the expansion of the computerised Area Traffic Control system;
- the provision of latest traffic information on the radio to help motorists avoid congested areas;
- close liaison with the utility companies to reduce the frequency and duration of road openings and to improve the implementation of traffic diversion so as to minimise the disruptions to traffic; and
- implementation of road safety remedial measures and a more vigorous vehicle inspection programme with a view to reducing accidents and hence traffic disruptions.

Also, new technologies to increase the efficiency of the transportation system have been employed or under investigation. These include :-

- Auto-toll - An automatic toll collection system based on microwave automatic vehicle identification (AVI) technology has already been in use at two tunnels. An advanced version using the smart card technology and AVI system is being contemplated at another tunnel.
- Adaptive Traffic Control - This control system is installed at the signalized road junctions for detecting the degree of traffic saturation on the approach arms of the junctions. The control system is capable of adjusting the signal timings based on the degree of saturation at the junction thereby optimizing the traffic flow through the junctions and improving the traffic congestion thereat.
- Variable Message Signs - Variable Message signs are proposed for implementation on strategic highway infrastructures. The signs would disseminate messages on the road conditions, such as any traffic incidents and advisory information on route choice, as appropriate, to keep drivers fully informed of the traffic situations ahead, thus minimizing the travel times.

**CIVIL AVIATION.** With the completion of the latest expansion project, the Hong Kong International Airport at Kai Tak can handle 24 million passengers a year. A plan to introduce further expansion of the terminal facilities to cope with the higher throughput levels anticipated is being developed. As regards air cargo, a second air cargo terminal was opened in 1991 increasing handling capacity to 1.4 million tonnes a year. However, further expansion of the Hong Kong International Airport is not possible because of its location, and it is due to be superseded in 1997 when the new international airport at Chek Lap Kok becomes operational. The replacement airport, operational 24 hours a day, will be able to handle 35

million passengers and 1.5 million tonnes of cargo annually on opening. It is designed to grow to handle approximately 87 million passengers and about 9 million tonnes of cargo a year by the year 2040. Access to the replacement airport will be via a high speed rail system and a six-lane highway that will join North Lantau with Kowloon and Hong Kong Island. The target opening date for the new airport is 1997.

## FINANCING

- VII. Identify the methods (e.g. user fees, licence fees, tolls, taxes), mechanisms and institutions (e.g. National government, multilateral organizations) that provide funding for transportation infrastructure projects.

**MARITIME.** Hong Kong has a tariff system to collect port dues and other charges for providing an efficient service to all port users. Almost all infrastructure projects in Hong Kong are funded by private firms.

**LAND.** Investment in transport in Hong Kong has been financed in three different ways :-

- By public expenditure controlled through the Capital Works Reserve Fund - most highway projects have been funded in this way.
- By borrowing in the world capital markets - this has

**INDONESIA**

## INDONESIA

To describe our National Transportation System, it is better to elaborate firstly on Indonesian geography. Indonesia comprises more than 17.5667 islands and the territory of Indonesia stretches 5.110 kms from east to west and 1.888 kms from north to south.

The five main islands of Indonesia are Kalimantan (539.460 sq. kms). Sumatera (473.606 sq. kms), Irian Jaya (421.981 sq. kms), Sulawesi (189.162 sq. kms) and Java (132.187 sq. kms). Bali Island is only 5.623 sq. kms and is inhabited by less than 2% of the population.

The Republic of Indonesia is divided into 27 provinces and there is a regional office of the Ministry of Transportation in every province.

In order to achieve the national economic goals, a long term development pattern is defined and further elaborated in the form of Five Year Development Plans (PELITA) and 1994 is the last year of the fifth Five Year Development Plan.

Realizing this geography, you will share our idea that transportation in Indonesia has a significant role in the economic development of the nation.

Due to the Indonesia's geography, the National Transportation System covers the development of land, sea and air transport and its infrastructures as well as meteorological and geophysics and search and rescue center, is designed to increase the development of political and social life, cultural and economic growth of the country and to expedite and expand the flow of goods, livestock and people all over the country, as well as increasing the distribution commodities marketing system and stimulating a balanced development inmost parts of the remote regions.

### ADMINISTRATION

- I. List the national and regional (state) government authorities that administer and regulate your transportation industry with contact office, address and phone number.

The Indonesian transport services within the entire country that covers land, sea and air transport are managed by

Ministry of Transport (MOT). The Ministry of Transport has representative at the 27 regional offices.

The contact offices are as follows:

Head Offices

**Ministry of Transport (MOT)**

Jl. Merdeka Barat 8

Jakarta, Indonesia

Tel : (021) 361308

Fax : (021) 351657

**The Secretariat General**

Jl. Merdeka Barat 8

Jakarta, Indonesia

Tel : (021) 3840694

Fax : (021) 361303

**The Directorate General of Land Transport and Inland Waterways**

Jl. PB. Sudirman 77

Jakarta Selatan, Indonesia

Tel : (021) 5706618

Fax : (021) 5706624

**The Directorate General of Sea Communications**

Jl. Merderka Timur 5

Jakarta, Indonesia

Tel : (021) 3848798, 363269

Fax : (021) 361786, 3844492

**The Directorate General of Air Communications**

Jl. Angkasa I/2

Jakarta, Indonesia

Tel : (021) 4248016, 4246321

Fax : (021) 4246779, 4241169

Regional Offices

**ACEH**

Jl. Kuta Alam No. 52

Banda Aceh

Tel : 22110/22106

Fax : (0651) 22106

**SUMATERA UTARA**

Jl. Imam Bonjol No. 61

Medan

Tel : 323357/325206

Fax : (0613) 2335

**RIAU**  
Jl. Jenderal Sudirman  
No. 474  
Pekanbaru  
Tel : 31817,31537  
Fax : (0761) 31533

**JAMBI**  
Jl. DR. Sumantri Br.  
Jambi  
Tel : 22146  
Fax : (0741) 22146

**SUMATERA SELETAN**  
Jl. Adi Sucipto  
Palembang  
Tel : 358311,319911  
Fax : (0711) 310014

**JAWA BARAT**  
Jl. Diponegoro No. 22  
Bandung  
Tel : 444729  
Fax : (022) 351657

**JAWA TENGAH**  
Jl. Pemuda No. 160  
Semarang  
Tel : 24750  
Fax : (024) 26710

**JAWA TIMUR**  
Jl. Jemur Andayani 1  
Wonocolo  
Surabaya  
Tel : (031) 83247,832852  
Fax : (031) 818187

**KALIMANTAN TIMUR**  
Jl. Yos Sudarso No. 124  
Samrinda  
Tel : 23320, 22353  
Fax : (0541) 23320

**SUMATERA BARAT**  
Jl. Kuini No. 79 A  
Padang  
Tel : 21223, 23919  
Fax : (0751) 21223

**BENGKULU**  
Jl. Basuki Rahmat No. 8  
Tel : (0736) 20563  
Fax : (0736) 20563

**LAMPUNG**  
Jl. Kalianda  
Srengsem  
Tel : 31499, 31409  
Fax : (0721) 31155

**DKI JAKARTA**  
Jl. Yos Sudarso No. 12  
Tanjung Priok-Jakarta  
Tel : 429244, 491968  
Fax : (021) 494463

**D.I. YOGYAKARTA**  
Jl. DR. Sutomo No. 54  
Yogyakarta  
Tel : 2586  
Fax : (027) 463405

**KALIMANTAN BARAT**  
Jl. Adi Sucipto KM 9,2  
Pontianak  
Tel : 32842, 34811  
Fax : (0561) 32842

**KALIMANTAN SELATAN**  
Jl. R.E. Martadinata No. 35  
Banjarmasin  
Tel : (0511) 3875  
Fax : (0511) 2148

**SULAWESI UTARA**

Jl. Martadinata 35  
Manado  
Tel : 63599  
Fax : (0431) 60083/60908

**SULAWESI SELATAN**

Jl. Madura No. 1  
Ujungpandang  
Tel : (0411) 316449, 313292  
Fax : (0411) 313292

**NUSA TENGGARA BARAT**

Jl. Langko No. 49  
Mataram  
Fax : (0364) 21886

**IRIAN JAYA**

Jl. DR. Sam Ratulangi 8  
Jayapura  
Fax : (0390) 21290

**KALIMANTAN TENGAH**

Jl. Tjilik Riwut KM 3.5  
Palangkaraya  
Fax : (0514) 21090

**NUSA TENGGARA TIMUR**

Jl. Palapa No. 17  
Kupang  
Fax : (0391) 31753

**SULAWESI TENGAH**

Jl. R.A. Kartini 35  
Palu  
Tel : (0401) 21084, 21964  
Fax : (0451) 23039

**SULAWESI TENGGARA**

Jl. S. Parman No. 2  
Kendari  
Fax : (0401) 21964

**TIMOR TIMUR**

Jl. Marginal  
Dili  
Fax : (0390) 21290

**MALUKU**

Jl. Raya Patimura  
Maluku  
Fax : (0911) 53396

**BALI**

Jl. Kapten Cok A Trena Niti  
Denpasar

**State Enterprises**

1. Rail Transport Corporation (PERMUKA)  
Balai Besar Pramuka  
Jl. Perintis Kemerdekaan I  
Bandung  
Tel : 430039, 430054, 430062  
Fax : (022) 443342



2. Jakarta Passenger Transport Corporation (PPD)  
 Jl. Kramat Raya 21  
 Jakarta Pusat  
 Tel : 3842413, 3845670, 3840814  
 Fax : (021) 3106841
3. Road Passenger Transport Corporation (DAMRI)  
 Jl. Matraman Raya 25  
 Jakarta Timur  
 Tel : 881131, 881132  
 Fax : (021) 4208913
4. Inland Waterways Transport Corporation (ASDP)  
 Jl. Achmad Yani Kav. 52 A  
 Jakarta Timur  
 Tel : 4208911, 4208912, 4208913  
 Fax : (021) 4208913
5. Indonesian National Shipping Company (PELNI)  
 Jl. Gajah Mada 14  
 Jakarta Barat  
 Tel : 361635, 358399  
 Fax : (021) 384605
6. Djakarta Lloyd Ltd. Co.  
 Jl. Agus Salim 28  
 Jakarta Pusat  
 Tel : 331301, 331486, 331451  
 Fax : (021) 333514, 335706
7. Bahtera Adhiguna Ltd. Co.  
 Jl. Kalibesar Timur 10-12  
 Jakarta 11110  
 Tel : 676547, 672613, 672961  
 Fax : (021) 6901450
8. Indonesian Classification Bureau (BKI)  
 Jl. Yos Sudarso 38-39  
 Tanjung Priok  
 Jakarta Utara  
 Tel : 493508  
 Fax : (021) 496175, 43000139
9. Varuna Tirta Prakasya Ltd. Co.  
 Jl. Raya Pelabuhan 27 Tanjung Priok  
 Jakarta Utara  
 Tel : 495320, 495384  
 Fax : (021) 498750

- 10. Port Corporation I  
 Jl. Pelabuhan II/1  
 Belawan - Medan  
 Tel : 41876, 41753  
 Fax : (061/61) 0906
  
- 11. Port Corporation II  
 Jl. Pasoso I  
 Tanjung Priok  
 Jakarta Utara  
 Tel : 492208  
 Fax : (031) 491300, 495140
  
- 12. Port Corporation III  
 Jl. Perak Timur 610  
 Surabaya  
 Tel : 295201-07  
 Fax : (031) 291337, 293994
  
- 13. Port Corporation IV  
 Jl. Sukarno I  
 Ujung Pandang  
 Tel : 4797, 6549  
 Fax : (0411) 319044
  
- 14. Indonesia Dredging State Ltd. Co. (Rukindo)  
 Jl. Seram I, Tanjung Priok  
 Jakarta Utara  
 Tel : 490430, 491164  
 Fax : (021) 490430
  
- 15. Garuda Indonesia  
 Jl. Medan Merdeka Selatan 13  
 Jakarta Pusat  
 Tel : 3801736, 3801901  
 Fax : (021) 368031, 363330
  
- 16. Merpati Nusantara  
 Jl. Angkasa 2, Kemayoran  
 Tel : 413608  
 Fax : (021) 416747, 418936
  
- 17. Airport Corporation I (Pap I)  
 Jl. Angkasa, Kemayoran  
 Jakarta Pusat  
 Tel : 410908  
 Fax : (021) 416878

18. Airport Corporation II (Pap II)  
Bldg. 601 Soekarno-Hatta International Airport  
Tangerang  
Jakarta  
Tel : 5505074  
Fax : (021) 5502141

II. Describe how the major transportation modes (i.e. maritime, aviation, rail, highway) are regulated by your national authorities. Discuss the general framework of regulation in the following areas:

- Infrastructure Development
- System Operations and Maintenance
- Environmental Protection
- Safety and Security
- Standards

During the fifth Five-Year Development Plan (1989-1994) the development of roads, which includes the national, provincial and regency road networks has been carried out and its aim to increase the movement of goods, passenger and population mobility.

To penetrate more remote areas, urban regions and production centres, the government constructed new roads and bridges.

The development of the road transport emphasizes safe, integrated, efficient transport services and creates social awareness while driving on the road.

River, Lake and Ferry transport are found mainly in East Kalimantan, West Kalimantan, Central Kalimantan, South Kalimantan, Maluku, North Sulawesi, Irian Jaya and South Sumatra.

The development of inland Waterways and ferry transport is with the aim of expediting the movement of people and goods in isolated areas using traditional and modern craft. The promotion of inland waterways and ferry transport is by the development of the vessels, improvement of terminals and quays and construction of rivers. Up to 1990 the development of 50 ferries and 18 quays had been carried out.

The railway transport services is found only in Java and Sumatra with the sole operator is Public Corporation for Railway Transport (PERUMKA).

The development of railway transport has the purpose of accelerating the movement of passengers, agricultural plantation, mining and industrial products.

Rehabilitation and upgrading of the infrastructure and the improvement of the railway services are an attempt to meet ever increasing demand in conjunction with the growth of the flourishing economy of the country.

Cargo Container Terminals also have been built in some railway stations with the aim to smooth the flow of goods between production centres and harbours. Settlement of export documents will be effected at the terminals instead of previously being carried out at the harbour.

The terminals have been set up at Gedebage near Bandung, Ramnipuji near Jember, Jebres near Solo, Kertapati near Palembang and Tebing Tinggi near Sumatra.

The Sea Communication sector plays an important role because the Indonesian sea area is four time larger than its land area. The development of sea communications is aimed at smoothing the flow of people and goods in and out of the country. It is also directed toward speedy realization of political and economic unity as well as preserving national security.

Indonesian sea transport consist of the inter-island, local, traditional, ocean going, pioneer and special shipping, The placement of fleets depends on area condition, particularly in the eastern part of Indonesia.

By virtue of the Government regulation No. 17/1988, started from November 1988, concerning sea transport, the decision concerning routes of operation are fully in the hands of shipping companies.

In the fifth Five-Year Development Plan, an effort has been bade to rehabilitate and improve the air transport infrastructure. It consists of the improvement of air safety facilities, an increase in the number of aeroplanes, flight frequencies and runways upgrading.

To avoid traffic jams, particularly at working hours and road crossings, toll roads and fly-passes were continually constructed in many cities. A fly-over-toll-road from Cawang to Tanjung Priok/Jakarta (14 km) and an elevated railway from Manggarai Station to Jakarta - Kota Station (8 km) had also been built.

Rehabilitation and maintenance of the regency of provincial road network were developed in conjunction with the traffic growth and the social welfare.

The development of road transport and inland waterways transport has been integrated and ferry quays and terminals were built.

Rehabilitation, replacement and improvement of equipment and infrastructure such as harbour facilities, harbour administration, vessels, dredging, safety of shipping, marine communication and coast-guard facilities have been carried out.

III. Describe how your transportation system is organized between national, regional and local governments. Discuss the international relationship by transportation mode.

The Ministry of Transport of Indonesia has representative at the 27 regional offices. Every regional office is directly subordinate and responsible to the Ministry of Transport. To implement all the transportation project, every regional office should make a coordination with the regional government since the project located in the regional area. It could be said that the National Government has a responsibility to advise and monitor the regional offices in implementing the national policy.

On the other side the regional government as well as the local government should give some inputs concerning the transportation condition in their areas to the National Government for the development of the transportation in the future.

Government is in the process of the decentralization. Virtually all road transport regulation functions are being assigned to regional and local governments. Central government has established regional offices to coordinate all transport activities. In this instance the central government representative coordinates the implementation of services between modes and administratively between the Governor's of each province and the implementing agency.

IV. Identify the operations and services within your transportation modes that are performed by private or semi-private organizations.

Operation and services within transportation modes performed by private and semi-private are as follows:

No.	Transportation modes	Private	Semi-private
1.	Railways		x
2.	Buses	x	x
3.	Airlines	x	x
4.	Ferries	x	x
5.	Ocean Carriers	x	x
6.	Goods Transport	x	x
7.	Ports	x *)	x
8.	Taxis	x	
9.	Airport Support Service	x	x

V. Place an appropriate check by each part of your transportation industry to describe its most common form of ownership or administration.

No.		Federal	Regional\		Private	Semi-Public
			Local			
1	Port authorities	x				
2	Port operations	x			x	x
3	Ocean carriers	x			x	x
4	Inland Waterway carriers				x	x
5	Airlines				x	x
6	Airport authorities	x				
7	Airport operations	x			x	x
8	Air traffic control	x				
9	Railroad freight				x*)	x
10	Railroad passenger					x
11	Railroad Commuter					x
12	Highway construction	x	x		x (toll)	x
13	Highway maintenance	x	x		x	x

\*) in cooperation with State Owned Co.

V. Provide an overview of new policy directions, major programs and projects, and new products that will make your transportation system more efficient.

The policy direction of Indonesian transportation is as stated in the fifth Five-Year Development Plan (Pelita V). It will expedite the flow of people, goods and services, including information, to promote equity in development throughout Indonesia, accelerate economic growth, and facilitate efforts to preserve national stability. Because of extensive linkages, transportation development will be integrated with that of other sectors. The quality of services and management efficiency will be increased, so that transportation services will be available at costs that an increasing portion of the public can afford.

The measures to be taken encompass enhancement of the potential of existing transportation and support facilities; promotion and training of personnel; and simplification of regulations to encourage the participation of the private sector.

Development of roads and bridges will give emphasis to the road networks in growth centers and production centers and roads that connect production areas with their marketing regions. By the end of Pelita V, national and provincial road networks in stable condition are expected to cover 43,400 kilometers, while the length of asphalted roads is expected to increase to 93,900 kilometers. In addition, artery/collector roads of 1,600 kilometers, municipally roads of 344 kilometers, and bridges totaling 4,200 meters will be constructed.

Road transportation services encompassing urban, inter-urban and interregional passenger and cargo transportation will be further developed through greater integration and better management. To promote road traffic safety measures will be taken for testing motor vehicles and improving traffic signs, road marks and road security fences.

Development of railways will focus on increasing their load capacity, service quality, and management efficiency. For this purpose, 1.835 km of tracks will be rehabilitated; 175 underpass bridges and overpass bridges totaling 2.500 tons will be constructed; and locomotives, passenger wagons and cargo wagons will be rehabilitated.

Railway traffic safety equipment will also be upgraded and expanded. Further, improved urban and inter-urban transportation services will be promoted by rehabilitating 640 electric trains, increasing the number of inter-urban passenger wagons, increasing the number of electric trains by 136 units, increasing the number of locomotives by 50 units, and rehabilitating diesel trains.

Development of river, lake and ferry transportation will stress enhancement and integration with the road and the railway transportation systems. The primary goal will be to support development activities in various sectors and regions, particularly settlements in the inland and scheduled areas. For this purpose, steps will be taken to rehabilitate 16 ferry-port wharfs, to increase and expand 65 ferry crossing networks, to rehabilitate 4 and construct 10 lake wharfs, to rehabilitate 22 and construct 14 river wharfs, to rehabilitate 18 ferry-boats and procure 8 additional ones.

Development of sea transportation will stress access for all the regions, stimulation of economic growth, expansion of inter-regional trade, and increased competitiveness of domestic products in domestic and foreign markets. The capability and role of national shipping companies engaged in domestic area transportation will be promoted. Cooperation among national shipping lines will be strengthened in order to create a cohesive and strong transportation fleet.

The capability, role and competitiveness of national companies engaged in international shipping will also be promoted, particularly for the transportation of export commodities. Smallholder and pioneering shipping will also be promoted so that more people particularly those from remote and scheduled areas, can benefit from sea transportation services. Efforts will also be made to improve the management of ports and other sea communication facilities, so that they can provide safer and less costly services.

In order to promote these aims during Pelita V, the national fleet capacity will be increased by 178.500 dwt, the local sailing fleet by 22.00 dwt, the smallholder sailing fleet by 50.000 dwt, the special sailing fleet by 119.800 dwt and passenger ships by 40.000 brt. Further, the capacity of ocean liners, including special liners with foreign routes, will be increased by 112.800 dwt. Wharfs will also be increased by 4.910 m, harbour godowns by 53.750 m<sup>2</sup>, open storage areas by

67.200 m2 and container areas by 80.000 m2. Port dredging will continue and more navigational aids will be installed throughout the territorial sea.

Increasing the capability and management of air transportation will also be a focus of development in Pelita V. Air transportation services will be extended to a greater number of regional areas. It is hoped that the national airline will increase its international market, thus contributing to foreign exchange earnings. In Pelita V, the growth rates of demand for domestic, international and pioneering air transportation services are expected to reach 8.6%, 9.1% and 11.2% per annum respectively. To promote these goals, air transport capacity will be increased through the construction of 11 new airstrips that include appropriate terminals and stevedoring facilities; the construction of 6 additional airports that can accommodate 8-737 type planes; of 10 new airports that can handle DC-10/A-300 type planes; 22 additional airports that can handle DC-9 types planes; 39 airports that can handle F-28 type lanes and 63 airports that can accommodate T-27/CN-235-type planes. The major projects of transportation that will be implemented in Indonesia included in the attachment.

## FINANCING

VII. Identify the methods (e.g) user fees, license fees, tolls, government, multilateral organizations) that provide funding for transportation infrastructure projects.

What opportunities exist for foreign investment in your transportation infrastructure and services?

All of the following are generally open for foreign investment upon application to government approval, which consist of toll roads, port operations, airport supporting facilities and shipping services.

Foreign investment is regulated by Act No. 1 of 1967, and was later amended by Act No. 11 of 1970, while domestic investment is regulated by Act No. 6 of 1968 and amended by Act No. 12 of 1970.

The National Investment Coordinating Board (BKPM) is responsible for formulating investment policies, coordinating and planning regional and sectoral investment and approving investment proposals.

To seeking approvals, applying for licenses and permits to set up or expand production facilities, the foreign as well as domestic investors deal solely with The National Investment Coordinating Board. The only exceptions are projects in oil, gas, mining and forestry industries. For these projects the government departments concerned negotiate directly with prospective investors.



To make sea transportation's investment climate more favorable, a series of reform measures, better known as the 21 November 1988 package, has been adopted and executed. The package among others and smooth the way for foreign investors to invest in joint-companies in the sea transportation business.

It is stated that a requirement imposed on foreign shipping companies operating a sea transportation to and from Indonesian ports are obligated to appoint a National Shipping Company as their General Agents in Indonesia and shall be responsible as carriers or cargo canvassing, arranging cargo discharge loading activities and so on.

**JAPAN**

## JAPAN

### ADMINISTRATION

I. List the national and regional (state) government authorities that administer and regulate your transportation industry with a contact office, address, and phone number.

Ministry of Transport (MAT)

2-1-3 Kasumigaseki, Chiyoda-ku, Tokyo 100.

Transport Policy Bureau, (03) 3580-3185

Railway Bureau, (03) 3580-4568

Road Transport Bureau, (03) 3580-4710

Marine Transport Bureau, (03) 3580-6052

Maritime Technology and Safety Bureau, (03) 3580-6130

Ports and Harbours Bureau, (03) 3580-4496

Civil Aviation Bureau, (03) 3581-4472

Maritime Safety Agency, (03) 3581-9802

II. Describe how the major transportation modes (i.e., maritime, aviation, rail, highway) are regulated by your national authorities. Discuss the general framework of regulation in the following areas:

#### **Infrastructure Development**

**PORTS AND HARBOURS.** In the decision making, the Ministry of Transport sets the basic policies regarding the development and use of Ports and harbours. Also, the Ministry judges whether the harbour plans made by the port management body of major ports conform to the basic policies and standards.

Concerning the implementation of projects, the Ministry of Transport aids the projects enforced by port management bodies as well as actually carrying out the construction work. In addition, the state gives financial aid and offers low-interest loans towards the project of public corporation and of private (which are set out by the Private Participation Law).

However, facilities for private use are serviced at the expense of each owner.

**AIR TRANSPORTATION.** When an airport is to be built by some other than the state or the New Tokyo International Airport Authority, the Ministry of Transport examines the plan against the standards and then gives permission for the project to be carried out.

For the enforcement of projects, the Ministry of Transport services airports that are to be done so by the state. The Ministry also pays expenditures for the New Tokyo International Airport Authority and the Kansai International Airport Corporation as well as providing assistance for the local public bodies constructing their airports. Low-interest loan is available for the installation of airport related facilities such as passenger terminals and hangars.

Planning, installation, operation and maintenance of air traffic control facilities such as radar and aviation safety radio facilities such as ILS, are all implemented by the Ministry of Transport with certain exceptions.

As for the aviation lights, the airport construction managers are in charge, but when installed by a local public bodies, the Ministry of Transport gives financial aid towards a part of expense needed for the construction.

**RAILWAY TRANSPORTATION.** Concerning the management of a railway project, the Ministry of Transport examines the project against the basic standards such as the Planned Route Basic Plan based on the Law for Railway Business Enterprise and gives license.

On the implementation of projects, rolling stocks are to be serviced by each railway company. Regarding facilities, the Japan Railway Construction Public Organization plays the main part in the construction of Shinkansen bullet trains, but for the other projects, they are to be enforced by the railway companies concerned.

### **System Operations and Maintenance**

**PORTS AND HARBOURS.** Port and harbour facilities must be maintained according to the technical standards set out by the Ministry of Transport.

The Ministry of Transport supervises the decision of the user's fee decided by the port management bodies.

**Marine Transportation.** Based on the Marine Transportation Law, the Ministry of Transport supervises the management and business plans regarding the marine transportation operation.

On the coastal shipping industry, the Ministry supervises business license according to a special law.

**Airport Transportation.** The management of an aerodrome must be carried out according to the technical standards set by the Civil Aeronautics law system. Also, as for the aerodrome management regulations and user's fee, in principle, those in charge must receive licenses from the Ministry of Transport.

**Railway Transportation.** The Ministry of Transport supervises management, facilities, rolling stocks and fee related to railway operation, based on the Railway Business Law.

Concerning the Japan Railway (JR) companies, the Ministry supervises their business plans, etc., based on a special law.

**Road Transportation.** Based on the Road Transportation Law and Trucking Business Law, the Ministry of Transport supervises management related to automobile transportation business. The Ministry also supervises over the prevention of pollution and the securing of automobile safety, based on Road Vehicles Act.

### **Environmental protection**

**PORTS AND HARBOURS.** In a port planning, The Ministry of Transport examines the matters of arrangement and conservation of the environment. The Ministry of Transport also evaluates the impact on the environment before the enforcement of a project which includes the plan of land-reclamation and advises the Business Organization about the evaluation before the enforcement of the project.

**Marine Transportation.** The Ministry of Transport performs following tasks in accordance with the Law relating to Prevention of Marine Pollution and Maritime Disaster.

- It controls the discharge of oil and other waste materials from ships to sea.
- It controls the incineration of oil and other materials in ships.
- It advises, observes and regulates for the prevention of marine pollution.
- It arranges for the establishment of oil preventing structure.

**AIR TRANSPORTATION.** The Ministry of Transport executes and advises the assessment of the impact on the environment before the enforcement of a project related to the construction or to the alteration of an aerodrome which is larger than prescribed standards.

As for the prevention of disturbance arising from aircraft noise, environmental quality standard pertaining to aircraft noise desired to be observed is provided. The Ministry of Transport thereby takes such measures to designated aerodromes provided by the government and the New Tokyo International Airport Authority

as the introduction of a low noise aircraft and the arrangement of buffer green belts around the aerodromes for the purpose of decreasing disturbance arising from aircraft noise.

**RAILWAY TRANSPORTATION.** As for the Japanese Super Express Lines, noise standards, desired to be observed for the environmental protection, are provided. In order to meet these standards, the Ministry advises for the encouragement of various kinds of measures, mainly measures for the noise reduction. As for the construction of a new Super Express Line, the Japan Railway Construction Public Corporation, which is the conducting corporation for the construction, indicates the impact on the environment under the advice of the Ministry of Transport.

**ROAD TRANSPORTATION.** The Ministry of Transport provides the technical standards of road vehicles' structure and its devices for the prevention of environmental pollution, securing the conformity to the standards through inspection.

### **Safety and Security**

**MARITIME TRANSPORTATION.** The Maritime Safety Agency carries out various duties such as guard and rescue Services including law enforcement, search and rescue operations, navigation safety, and prevention of marine pollution: hydrographic Services including hydrographic surveys, observation of sea conditions, publishing nautical charts, oceanographic data and information services; aids to navigation services which construct and maintain lighthouses, buoys, radio aids, etc.

The Ministry of Transport assigns the sea traffic controllers and imposes the duty of making the sea traffic regulations to the domestic passenger transportation enterprises under the Marine Transportation Law in order to ensure the safety on sea traffics for the domestic passenger ships.

The Ministry of Transport enforces rules regulations; performs regular inspections on Japan-flag merchant ships; and P.S.C. on foreign ships calling at Japanese ports.

The Ministry of Transport also checks the licenses and certificates of foreign merchant mariners to insure proper manning of all ships calling at Japanese ports.

**AIR TRANSPORTATION.** The Ministry of Transport stipulates the regulations of air navigation, based on the standards prescribed in the Annexes to the Convention on International Civil Aviation in order to ensure the safety of operation of aircraft.

For example, an operator of commercial air transportation shall prepare its Operation Manual and Maintenance Manual and submit them to the Minister for Transport for approval. The Ministry of Transport makes surveillance, checks on the operation, and maintenance facilities of the operators to ensure that the manuals are properly complied with.

For aviation security, screening of the passengers, their hand baggage on board the aircraft and check-in baggages is implemented pursuant to the Annex 17 of Convention on International Civil Aviation.

**RAILWAY TRANSPORTATION.** The Ministry of Transport establishes the standards on license in the Railway Business Law in order to ensure safety and creates the technical standards in the railway operation and based on this, approval and inspection of working section and inspection after the construction work completed.

**ROAD TRANSPORTATION.** The Ministry of Transport stipulates the technical standards on safety maintenance to assure the safety of road vehicles and assures the safety aspect of each vehicles through inspection.

Also, the Ministry of Transport imposes automobile transportation enterprises to assign to the operation manager and the maintenance supervisor and to ensure safety in transportation under Road Transportation Law, etc.

### Standards

**PORTS AND HARBOURS.** The Ministry of Transportation stipulates the technical standards on the port and harbor facilities.

**MARINE TRANSPORTATION.** The Ministry of Transport develops standards for those areas considered critical, both national and international. Specifically, Ministry of Transport develops standards in recreational boating and commercial vessel safety and pollution prevention program.

**AIR TRANSPORTATION.** The Ministry of Transport stipulates the standards on the regulation of air safety, construction of aerodromes and air traffic services, etc.

**RAILWAY TRANSPORTATION.** The Ministry of Transport stipulates the standards on the safety in the railway facilities.

**ROAD TRANSPORTATION.** The Ministry of Transport stipulates the technical standards on the safety of road vehicles and on the prevention of pollution.

III. Describe how your transportation system is organized between national, regional, and local governments. Discuss the intergovernmental relationships by transportation mode. (Share between Government and private sector)

**PORTS AND HARBOURS.** The deliberation, etc., of port and harbor plan is carried out by the Ministry of Transport while the establishment of port and harbor plantings as well as the development, administration and operations are conducted by the port management body. (local public body itself or jointly established body).

**MARINE TRANSPORTATION.** The activities are operated by the private enterprises with the exception of certain solitary islands transportation.

**AIR TRANSPORTATION.** The airport development is carried out by a state agency, the New Tokyo International Airport Authority (The New Tokyo International Airport in charge) and the Kansai International Airport Corporation (Kansai International Airport in charge) or local public bodies for its classification of airports.

The air traffic control is put under a uniformed operation by the Ministry of Transport while the airport control is carried out by the Ministry of Transport with certain exceptions. Also, the preparation of air navigation facilities is put under the responsibility of the Ministry of Transport with certain exceptions.

The air transportation business activities are managed by the private sector.

**RAILWAY TRANSPORTATION.** In principle, the railway transportation is operated by the private sectors while the public railway are maintained and operated by the local self-governing bodies while the railways under the third sector responsibility are jointly operated and maintained both by the local self-governing bodies and private enterprises. The Traffic Management Foundation is a semi-governmental corporation which belongs to the government.

**ROAD TRANSPORTATION.** The bus business operations, taxi business operations and trucking business operations, are carried out by the private enterprises while the bus business is operated in part by the local public bodies.

IV. Identify the operations and services within your transportation modes that are performed by private or semi-private organizations.

**PORT AND HARBOURS.** Pilotage, ship-water supply and ship-waste-oil-disposition, etc. (If any private enterprise is unavailable, these services are carried out by the ports management body).

**MARINE TRANSPORTATION.** Harbor business operations including inboard cargo handling, etc.



**AIR TRANSPORTATION.** The installation and management of the Kansan International Airport is under the responsibility of a stock corporation while all the air transportation business activities are managed by the private sector.

**RAILWAY TRANSPORTATION.** The railway transportation business.

**ROAD TRANSPORTATION.** The bus business operation, taxi business operation, trucking business operation and general road transportation business operations regulated under Road Transportation Law.

V. Place an appropriate check each under part of your transportation industry to describe its most common form of ownership or administration.

	<u>National</u>	<u>Regional</u>	<u>Local</u>	<u>Private</u>	<u>Semi Public</u>
1 Port authorities			<input checked="" type="checkbox"/>		
2 Port operations			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
3 Ocean carriers				<input checked="" type="checkbox"/>	
4 Inland waterway carriers				<input checked="" type="checkbox"/>	
5 Airlines				<input checked="" type="checkbox"/>	
6 Airport authorities	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>
7 Airport operations	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>
8 Air traffic control	<input checked="" type="checkbox"/>				
9 Railroad freight	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
10 Railroad passenger	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
11 Railroad commuter	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
12 Highway construction	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>
13 Highway maintenance	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>
14 Other					

VI. Provide an overview of new policy directions, major programs and projects, and new products that will make your transportation system more efficient.

**PORTS AND HARBOURS.** Port development with the purpose of forming the efficient material distribution system.

The development of the foreign cargo container terminals, multi-purpose foreign cargo container terminals, domestic-unit-load-terminals.

Ports and waterways development for the purpose of improving the stability of the port traffics. The development of breakwaters, refuge port, waterways to be developed and preserved.

Port development to create the space available for a new usage, promotion of re-development of ports and harbors and the development of off shore artificial islands.

Technical development for the smooth port development. Execution of the review with the purpose of rationalization of the coastal area, realization of the economic port structures and development of highly efficient construction technology.

**MARINE TRANSPORTATION.** Modal shift from road transportation to marine transportation.

From the view point of securing the stabilized transportation system for the domestic cargos, relaxation of traffic stagnation in the big cities and environment security by means of regulating the waste gas, the preparation of ships which are appreciate for modal shift, including the container ships, RORO ships and ferry ships are promoted to assure the modal shift from the truck transportation system to marine transportation system.

**AIR TRANSPORTATION.** Full-up and diversification of the domestic and foreign aviation networks.

The three most important projects:

- the achievement of the second-phase development program of the New Tokyo International Airport,
- the completion of off-shore expansion of the Tokyo International Airport,
- opening of the Kansai International Airport will promoted with top priority. As for local airports, extension of runways and development of other facilities will be promoted eagerly.

In expecting the harmonious development between the airport peripheries and the surroundings, the environment counter-measures for the airport peripheries is planned.

Promotion of preparing air navigation facilities to cope with the growth and diversification of the air traffic system.

**RAILWAY TRANSPORTATION.** Preparation of linear/Shinkansen lines to meet with the purpose of speed-up and comfortability of the railway transportation.

Perfection of the facilities, etc. as the counter-measure for the traffic handicapped persons.

Installation of the noise and vibration control walls and development of the low noise cylinders as a counter-measure against any noise and vibration.

**ROAD TRANSPORTATION.** Promotion of prevailing clean energy cars.

Improvement of efficiency of physical distribution (promotion of combined loading system, for track transportation, etc.)

Preparation and promotion of utilizing public transportation facilities

**MISCELLANEOUS.** The material distribution centers to be put in order. In addition to the storage and handling functions, the preparation and promotion of a combined material distribution center is promoted.

## FINANCING

VII. Identify the methods (e.g., user fees, license fees, tolls, taxes), mechanisms, and institutions (e.g., National government, multilateral organizations) that provide funding for transportation infrastructure projects.

### **PORTS AND HARBOURS**

#### - **Public Activities:**

Basic facilities: general financial source of the state and local public body  
Functional facilities: loan from the local public body (local bond).

#### - **Private participation facilities:**

Low interest loan both from the private fund and investment sources.

#### - **Public corporation facilities:**

General financial sources from the local public body (contribution). General financial sources from the state (non-interest).

#### - **Private investment:**

Low-interest loan from the government financial and investment sources.

### **MARINE TRANSPORTATION**

#### - **Ship construction:**

Low interest loan by the private fund and government financial investment sources.

## **AIR TRANSPORTATION**

### **- Public activities:**

General financial sources and airport charges (landings charges, etc.) both of the state (special Account for Airport Development) and local government. For the New Tokyo International Airport Authority and the Kansai International Airport Corporation, the state investment, government loan (loan bond) and self-finance are made (the local governments invest in the Kansai International Airport Corporation).

### **- Private activities:**

Low-interest loan by means of both private fund and government finance and investment sources.

**RAILWAY TRANSPORTATION.** In principle, the finance is provided at the cost of the utilizers (beneficiary) but there is some subsidies through the railway preparation fund. (Shinkansen Construction/Preparation Aid Facility, Main Lines Railway Construction/Preparation Aid Facility, Big Urban Railway Preparation Aid Facility, Security and Disasters Prevention Counter-Measure Facility). In addition, an operational expense aids facility for the middle and small private railways is available.

## **VIII. What opportunities exist for foreign investment in your transportation infrastructure and services?**

**PORTS AND HARBOURS.** In Japan, most public cargos are handled at the piers which are constructed and administered by port management body or the public corporation.

**MARINE TRANSPORTATION.** In principle, the investment by foreigners in the marine transportation is liberalized.

Any foreigner and foreign corporation are unable to own ships under the Japanese flag unless all the directors of a corporation have Japanese nationality.

**AIR TRANSPORTATION.** For the air transportation business, the foreigners who own a number of stock above fixed number are limited to exercise the power of stock holder.

Any foreigner is unable to own any aircraft which holds the Japanese flag.

**RAILWAYS.** No special restriction is imposed on any foreigner for the railway transportation business.

**KOREA**

## REPUBLIC OF KOREA

### I. National Transportation System

**PORT.** The Korean Maritime and Port Administration, the umbrella organization of the Ministry of Transport, is in charge of shipping and port management.

Korea has 27 trade ports and 21 coastal ports.

**AIRPORTS.** The Ministry of Transportation is in charge of civil aviation and airport management. Korea has 3 international airports (Kimpo, Kim, Cheju) and 11 domestic airports (Kwangju, Taegu, Pohang, Ulsan, Kunsan, Kangnung, Yecheon, Jinju, Yosu, Sokcho). Eighty-eight percent of the demand for international air transport in and out of Korea is concentrated at Seoul's Kimpo International flights in and out of Kimpo. Kimpo handled 21,231,468 passengers and 145,730 landings and takeoffs of aircraft in 1992.

**ROAD SYSTEM.** The Ministry of Construction is in charge of road building, maintenance, road transport regulation and policy. Korea's rapid economic growth has spurred an unprecedented nationwide increase in demand for transportation of passengers and freight. As a result, traffic congestion on the nation's roadways has grown rapidly worse in both intra and intercity transport. Private passenger cars are the primary cause of this congestion as their numbers have increased rapidly with the growth of personal income and availability of affordable automobiles. Road building has not kept pace with these changing trends. The government has plans to alleviate traffic congestion by widening existing roads and constructing new roads and expressways.

#### **Status of Roadways**

<u>Classification</u>	<u>Total Length (Km)</u>	<u>Paved Ration (%)</u>
Express highway	1,600	100.0
General national road	12,079	95.7
Special city road	13,082	84.9
Provincial road	10,689	79.2
City road	7,829	89.3
Gun (country) road	13,568	57.9
<b>Total</b>	<b>58,847</b>	<b>80.8</b>

**MASS TRANSIT SYSTEM.** Growth of the urban population and increase in the number of cars has resulted in road traffic congestion in urban areas. The government is trying to mitigate the intracity traffic congestion problem by improving public transport and in particular, by constructing more subway lines.

In 1974, the nation's first subway system began operation in Seoul. Currently, five routes are being operated with four in Seoul and one in Pusan. Additional subway lines are being continually constructed to increase the subway's share of the urban transportation system. Current total length of subway track amounts to 146.8 km.

**RAIL SYSTEM.** Korea National Railroad (KNR), the umbrella organization, is responsible for managing and operating the nation's railway system under the direction of an administrator and a deputy administrator.

General staff responsibilities encompass the Planning and Management Office, Safety & Train Operation Management Office, the Joint Venture Project Office and 5 bureaus: Transportation, Engineering, Rolling Stock, Electric and Finance & Accounting. Railroad operations are organized on a regional basis to enhance operating efficiency. Employees of KNR number 36,153, of which 88% are directly engaged in railroad operation and maintenance. The remaining 12% are engaged in areas of indirect support such as railroad construction, research, supply, staff training, electronic data management and general management.

KNR's tracking system totals 6,495.8km of standard gauge track covering a service distance 3,092.4 km, of which 27% is double-tracked and 17% is electrified.

**II. Infrastructure expansion plan**

**MARITIME.** In order to meet growing seaborne cargo volume, the government plans to further raise the annual cargo handling capacity of Korea's ports to 512 million tons by 2001 through expansion and modernization of existing facilities. The further development of Pusan Port and the construction of new ports at Kwangyang, Kusan and Asan, servicing a newly formed industrial complex, are among the nation's ambitious plans for the future.

**Port development schedule**

Year	Capacity (million tons)	Port
1980	270.0	Pusan
1985	380.0	Pusan
1990	450.0	Pusan
1995	512.0	Pusan, Kwangyang, Kusan, Asan

### The Expansion of Pusan Port

<u>Classification</u>	<u>Facilities</u>	<u>Construction period</u>	<u>Cost</u>	<u>Effect</u>
Phase III	quay 900m breakwater 6 set of cargo handling equipment	1985 - 1992	US\$370 million	3 berths (each of accommodating a 50,000 ton ship) annual cargo handling capacity 960,000
Phase IV	pier 1,400m 10 sets of cargo handling equipment	1990 - 1997	US\$496 million	4 berths (each of accommodating a 50,000 ton ship) annual cargo handling capacity 1,200,000 TEU

### The Development of Kwangyang Port

<u>Classification</u>	<u>Facilities</u>	<u>Construction period</u>	<u>Cost</u>	<u>Effect</u>
Phase III	quay 1400m access road 6.0km railroad 2.5km	1987- 1996	US\$227 million	4 berths (each of accommodating a 50,000 ton ship)
Phase IV	quay 2100m access road 15.5km	1990 - 2000	US\$509 million	6 berths (each of accommodating a a 50,000 ton ship) annual cargo handling capacity 1,440,000

Development of other ports is also planned by 2001 (estimated cost is not available).



# NEW METROPOLITAN AIRPORT PROJECT

## Outline of the Project

### - Objectives :

Accommodation of the projected air traffic demand of the Seoul Metropolitan area in the early 21st century.

State-of-the-art airport, functioning as the Hub airport in the Northern Asia Pacific region capable of 24 hour operation with minimal noise impact.

### - Location: Tidal land between Youngyu Islands (7km) off shore Inchon City

### - Scale of development

<u>Item</u>	<u>Facilities</u>	<u>Capacity</u>
Runaway operation/year	4 runaways (4000 x 60m)	530,000 operation/year
Passenger terminal	8.75 hectares (216.2 acres)	100 million pax/year
Area of land	4,744 hectares (11,722 acres)	5,610 hectares
Access transport Seoul	8 lane road 54.5km dual/track railway 66km and 2nd and 3rd access roads will be built	45 min. from down

- Estimated Total Cost: Approximately US\$ 12.5 billion

### Construction Plan of the first phase

- Basic survey and preliminary design: 1990 - 1991 Yooshin Engineering Corp. (ROK) and Bechtel International Inc. (USA)

- Detailed design and preparation of bid documents: 1991 - 1994

- Construction period: 1992-1998 (commencement of operation expected in 2000)

The 2nd phase and thereafter: The construction period may be flexibly adjusted to the increase of future air traffic demand.

## **Seoul-Pusan High-Speed Railway Project**

### **Outline of the Project**

- Distance: 430.7 between Seoul-Pusan
- Maximum speed: 300km/h
- Construction period: 1991-2001
- Intermediate stations: 4 stations (Chonan, Taejon, Taegu, Kyongju)
- Technology system: wheel-on-rail system
- Carrying capacity: 528,000 person/day
- Project cost: 10,740 billion won (US\$ 13.4 billion)

### **Time Schedule**

- Feasibility study: March 1983 - September 1985
- Engineering study and basic design: July 1989 - December 1990
- Selection of optimum route: June 1990
- Request for proposal and evaluation: 1991
- Detailed design: November 1990 - December 1992
- Inauguration of operation: 2002

### **Highway building and improvement**

- Period: '92 - '96
- Cost: not available
- Express highway building: 810.8km
- Highway building: 560km
- Improvement of highway: 291kkm

## **III. Governmental authorities responsible for regulating the transportation industry.**

### **Infrastructure development authorities**

#### **Ministry of Transportation**

- Address: 2ka, Bongras-dong, Choong-gu, Seoul, Korea, 100-162
- Contact person: Sang-do Kim, Deputy Director International Cooperation Division

#### **Ministry of Construction**

- Address: Jungang-dong 1, Kwacheon, Korea 472-750
- Contact person: Dong-Hwa Park, Director of Road Planning Division

## **Environmental regulatory authority**

### **Ministry of Environment**

- Address: Shin Cheon-dong 7-16, Sonpa-gu, Seoul, Korea, 138-240
- Contact person: Kwang-soo Lee, Director of International Cooperation Division

## **Security regulation authority**

### **Ministry of Transportation**

- Address: 2ka, Bongrae-dong, Choong-gu, Seoul, Korea, 100-162
- Contact person: Sang-Do Kim, Deputy Director of International Cooperation Division

### **Korea Police Administration**

- Address: Migeun-dong 209, Seodamoon-gu, Seoul, Korea
- Contact person: Beon-Gyoon Kim, Chief of Foreign Affairs Division II

## **Customs Authority**

### **Korea Customs Administration**

- Address: Nonhyun-dong 71, Kangnam-gu, Seoul, Korea, 135-010
- Contact person: Yoon-Hyeon Jeong, Director of Exit and Entry Control Division

## **Immigration and Naturalization Authority**

### **Ministry of Justice**

- Address: Jungag-dong 2, Kwacheon Keonggi, Korea, 427-750
- Contact person: Yoon-Hyeon Jeong, Director of Exit and Entry Control Division

## **Safety regulatory authorities**

### **Ministry of Transportation**

- Address: 2ka, Bongrae-dong, Choong-gu, Seoul, Korea, 100-162
- Contact person: Sang-Do Kim, Deputy Director of International Cooperation Division

## **Security regulation authority**

### **Ministry of Transportation**

- Address: 2ka, Bongrae-dong, Choong-gu, Seoul, Korea, 100-162
- Contact person: Sang-Do Kim, Deputy Director of International Cooperation Division

## **IV. Institutions which are the primary funding sources for transportation infrastructure projects.**

Ministry of Transportation and Ministry of Construction are the primary funding sources for transportation infrastructure projects.

### **(Budget process)**

- The Ministry of Transportation submits requests for next financial year's budget to the Economic Planning Board by May of every year.
- The Economic Planning Board prepares the government budget, consulting concerned Ministries and the Executive, and submits the budget to the National Assembly.
- The National Assembly reviews the proposed government budget and approves it.
- The Economic Planning Board allocates money to the appropriate ministries quarterly, in consultation with the Ministry of Finance.

## **V. Relationship between local and national transport governing authorities**

Even though autonomy exists to a degree, Korea has a powerful centralized government. The national government is primarily in charge of policy development, policy analysis, and policy decisionmaking. Local government is in charge of policy implementation in cooperation with the Ministry of Transportation.

## **VI. Privatization of transport services**

All transport services except the railway are privatized in Korea. The government established a national airline, "Korea Air Line" in 1962 and listed it on the stock exchange in 1966. In 1969, Korea Air Line's stock was made available for sale by the Korea Industrial Bank. At that time Hanjin Cooperation purchased the airline stock from KIB by means of a 15 year installment contract.

The government is currently taking steps so that Korea National Railroad become a public corporation in 1996.

## VII. Inspection Procedure

### Cargo inspection procedure

#### **Import system**

The Korean import system may be divided into two parts the import license system and the import customs clearance system.

The import license system is enforced and administered by the Ministry of Trade and Industry, with a view to promoting free and fair international trade.

The import clearance system is implemented and administered, under the provisions of Korea Customs Law and regulations, with a view to facilitating imports customs procedures for goods being imported from foreign countries. In this procedure, the customs house determines whether goods can be legally imported, and if so, collects the appropriate customs duty.

#### **Development of import customs clearance system**

Since the 1980's the liberalization of international trade has accelerated and the international trade balance of Korea has turned into a surplus. To meet the demands of increasing international trade, Customs has made remarkable efforts to introduce recently advanced customs techniques designed to simplify and standardize import clearance procedures.

As part of these efforts, Korea introduced a rapid customs clearance procedure similar to an immediate release system, adopted the "Agreement on Implementation of Article VII of "International Convention on the Harmonized Commodity and Coding System."

#### **Concepts and scope of "importation" in the customs law**

In customs law, "importation" means the delivery of foreign goods into Korea. Therefore, importation is accomplished at the time of the arrival of foreign goods into Korean territory from abroad or at the time of the release of foreign goods from Korean territory from a bonded area. The term "foreign goods" in Customs Law is different in definition from foreign products and means of the following:

- goods which arrived in Korea from abroad and for which no import license has been granted yet, or
- marine products and the like which are fished or recaptured by any foreign vessel on the high seas and for which no import license has been granted yet,

- goods for which an expert license has been granted.

Total importation as provided for by customs law are not necessarily identical with the import statistics figures, although the former provide the letter with the basis for compilation.

The discrepancies between the scope of importation in the customs law and the coverage in import foreign trade statistics are technical ones.

For example:

- Imported raw materials authorized for use in a bonded factory of a free export zone are excluded in the scope of "importation" from a customs viewpoint (because no customs duty is assessed on such goods) but are included in import statistics (because physical arrival of such goods necessitates their inclusion in import statistics) and

Among foreign goods for which an import approval application is waived pursuant to the External Trade Law, goods valued at less than US\$ 100,000 are included in the scope of importation for customs purposes but excluded from import statistics figures.

In order to briefly explain how Korean import procedures work, a general import procedure flow chart is presented on the following page.

### **Introduction of Goods into a Bonded Area**

Goods to be exported must be introduced into a designated bonded area before an export declaration is submitted.

Goods which are unfit for storage in a bonded area due to their bulkiness, heavy weight or other inevitable reasons are allowed to be stored in a non-bonded area.

Any goods whose quantity or weight can be verified by authorized survey reports may be loaded directly by an exporter onto the vessel in lieu of processing through a bonded area.

### **Expert Declaration**

Any person desiring to export goods shall declare the goods to the customs director including their description, quantity, price, any other information necessary to obtain an export permit after completing due procedures.

The expert declaration must be submitted to the customs officer with the following documents.

- Export License
- Invoice
- Packing List
- Certificate of export examination
- Any other documents which the customs director considers necessary.

The export declaration is checked to see whether it is in accordance with the attached documents.

#### **Inspection of Goods**

The customs officer is authorized by regulation to inspect the declared goods and verify them against the export declaration.

Inspections may be waived where goods are examined by authorized organizations under the Export Examination Act, or the customs officer feels that an inspection is not necessary under appropriate customs regulations or for other reasons.

#### **Export Permit**

An export permit is issued when the declared goods are in compliance with the related laws. After obtaining an export permit, the exporter may ship the goods for exportation.

Passenger documentation and inspection procedures:

- Outbanded Korean passengers are required to have the following documents:
  - Valid passport
  - (for males) Proof of completed military service
  - Quarantine documentation

Inbound passengers are required to have the following documents:

- Valid passport
- Valid VISA (for foreigners)
- Completed immigration card
- Completed customs declaration
- Completed quarantine card

### **VIII. Licenses and fees**

The Korean government does not impose licenses or other requirements on foreign shipping carriers. However, the following fees are imposed on all carriers, foreign and domestic.

Required fees: Anchorage fee, Dockage fee, Port dues.

- Foreign carriers "engaging in domestic trucking operations" are required to obtain trucking licenses.

#### IX. Procedures for the development of transportation products standards

Korea is now taking measures to develop the transport product standards in accordance with ISO standards. Major policies are as follows.

##### **Packaging**

- standardization of transport products on a gradual basis
- automation and mechanization of packaging process
- improvement of packaging strength
- design of product in consideration of packaging standards

##### **Transportation**

- selection of the optimum transport mode
- creation of joint-transport operations and planned distribution
- decrease of empty carriages by instituting a

##### **Storage**

- mechanization and automation of warehouse
- improvement of inventory management
- construction of inland container depots

##### **Cargo handling**

- mechanism and automation of cargo handling
- assistance to cargo handling businesses

##### **EDI development**

The Korean government established a commission to develop Korean EDIFACT, joined the Directing Board of Asian EDIFACT, and completed the development and harmonization of EDIFACT standard messages in 1991.

The Korean government plans to develop a trade network by 1994, and complete connection with international networks by 1995.



X. The Laws and regulation regarding foreign investment in transportation infrastructure and service

- The Ministry of Finance is mainly in charge of foreign investment. The Foreign Capital Inducement Law requires that a foreigner acquire stock in Korean enterprises must get prior approval from the Minister of Finance. However, in cases of restrictions, projects inherent in the small and medium sized enterprises and designated systematization projects, foreign investment shall be subject to notification instead of approval by the Minister of Finance.
- Also, specific laws such as the Road Transport Service Law, Maritime Service Law, Civil Aviation Law, etc. require that foreign investment in transportation services shall be licensed or registered.

XI. Bid Process

Foreign companies desiring to bid on transportation projects requested by government agencies such as the Ministry of Transportation, are required to consult the Korean Procurement Administration, which is in charge of international bidding.

XII. Improvements in the regional system

As trade continues to develop in the region, the need for more efficient land transport of containers and other freight increases accordingly. In addition, the demand for passenger travel among the region's nations for both tourism and business purposes also continues to grow.

To meet these demands, the Korean government has great interest in improving and expanding land transport links within the region and between Asia and Europe.

XIII. Human Resources Development

We note that as a result of rapid economic growth in the region, the development of human resources in the field of transport will become a pressing problem.

Currently, Korea has adequate human resources except in the field of civil aviation.

Korea has about 1,300 pilots, among which can be found an adequate number of general pilots, but a shortage of qualified captains.

With increased demand for more pilots, private industry is now taking steps to increase the supply of qualified pilots in the needed areas.

**MEXICO**

# MEXICO

## ADMINISTRATION

- I. List the national and regional (state) government authorities that administer and regulate your transportation industry with a contact office, address, and phone number.

See attachments 1 and 2.

- II. Describe how the major transportation modes (i.e., maritime, aviation, rail, highway) are regulated by your national authorities. Discuss the general framework of regulation in the following areas:

### *1. Infrastructure Development*

#### 1.1 MARITIME

The Ministry of Communications and Transportation (SCT), through the General Coordination of Ports and Merchant Marine (CGPMM), is empowered to define the policies for the development of the National Port System, and to authorize master programs to be undertaken by port administration. It also regulates, authorizes and controls the construction and maintenance of port and maritime works, according to the Ports Act.

Amendments to this Sector's legal framework, constitute the basis for the privatization process of container and multiple-use terminals, and were initiated at the ports of Altamira, Lazaro Cardenas, Manzanillo and Veracruz. This process will be intensified with the privatization of general freight terminals and of port services, as well as with the divesting of Integral Ports Administrations (API's).

The concession process does not mean the privatization of ports in an isolated form, but its integration into a comprehensive transportation system that will allow the country to face the increasing traffic demands. Advances are being accomplished in the development of an intermodal inland access from ports through railroad and highway transportation, making evident the need to promote the construction of transfer centers among private investors.

#### 1.2 AIR

SCT, through the Undersecretariat of Transportation (SST), is the authority empowered to propose steering schemes for the development of airport infrastructure, as well as to regulate, authorize and control the construction, reconstruction, relocation, enlargement, modernization, exploitation and operation of 25 airports administered locally and of an airport network with 58 air terminals, now being administered by the public agency, Airports and Auxiliary Services (ASA).

The regulatory framework on airport issues is included in the General Means of Communication Act that dates back to 1940, and several regulations on the matter. However, a new Airport Infrastructure Act is being formulated with the participation of involved public and private agencies and shall be used as a legal framework for the privatization of airports to be carried out during 1996, following safety, efficiency, competitiveness and profitability criteria.

It should be pointed out that the role of ASA will have to be redefined in light of the results of airport privatization process.

### 1.3 RAIL

The Railroad Service Regulatory Act was issued based on the recent Amendment to Article 28 of the Constitution, whereby railroads as a strategic activity cease to be the exclusive responsibility of the State. In it, the regulatory character of the Government is strengthened, and conditions for the participation of the private sector in the construction and modernization of railroad infrastructure are defined. These activities are now being undertaken by the decentralized government agency Mexican National Railroads (FNM).

According to this new Act, the Government will keep the ownership of the right-of-way and of the railroad infrastructure; while their administration and operation will be granted in concession to private parties through public biddings.

### 1.4 HIGHWAY

The construction, reconstruction, modernization, widening and maintenance of federal highways and bridges is regulated, authorized and controlled by SCT through the Undersecretariat of Infrastructure and performed by the SCT itself, by State and Municipal Governments, by the agency Federal Toll Roads, Bridges and Connected Services (CAPUFE) or by the private sector, through the concession regimes. The legal framework for this activity is the new Roads, Bridges and Federal Highway Transportation Act.

Considerable advances have been accomplished; nevertheless, it is necessary to upgrade the concession schemes in order to continue the development in this sector.

Regarding the construction and operation of freight service centrals, interior freight terminals, and passenger terminals, the SST is responsible for approving the corresponding projects and for authorizing and regulating their operation.

## *2. System Operations and Maintenance*

### 2.1 MARITIME

The CGPMM is responsible for policy definition in water transportation and merchant marine development. Likewise, it regulates, authorizes and controls port services provided by Integral Port Administration concessionaires, and also ships, navigation and services in waterway communications.

The maritime transportation legal framework is conformed by the Navigation Act, its regulations, by International treaties in effect ratified by Mexico, and additionally, among other provisions, by the Ports Act as well as international uses and habits.

### 2.2 AIR

SST regulates, coordinates, authorizes and controls national and international air transportation services, their auxiliary and connected services and facilities. Likewise, it

grants the authorizations for private aviation issues registration certificates for Mexican civil aircrafts and controls the Mexican aeronautical register.

It is also empowered to register and approve terminal and flight procedures and the national airways system, as well as to authorize and control installations, systems and services provided by the agency Services to the Navigation in Mexican Airspace (SENEAM), such as the dispatch of flights and aircrafts operations.

### 2.3 RAIL

The new Railroad Service Regulatory Act provides clarity and certainty to privatization actions of public railroad service which will be undertaken in a short term. It defines standards, mechanisms and ranges, whereby concession granting will be carried out to interested private parties.

In order to guarantee the adequate operation of services and to regulate private participation, tasks for the formulation of the necessary regulations for the enforcement of the Act have been initiated.

### 2.4 HIGHWAY

The SST regulates, coordinates and controls public and private highway transportation in federal highways, and authorizes these services in its modalities of passenger, tourist, freight and auxiliary transportation. It is responsible for the issuance of metal plates, identification stickers and owner's permits for public federal highway transportation vehicles.

The regulations for Federal Highway Transportation and Auxiliary Services, for Weight, Dimensions and Capacity of Highway Transportation Vehicles that Operate in Federal Roads and Bridges, and for the Transportation of Dangerous Materials and Remains, derived from the Roads, Bridges and Federal Highway Transportation Act, and those related to Traffic in Federal Highways and to International Multimodal Transportation, constitute the legal base for the operation of this transportation mode.

## 3. *Environmental Protection*

The regulatory authority on this matter is the Ministry of Environment, Natural Resources and Fishery, which bases its activities in the Ecological Balance and Environmental Protection Act.

SCT actively participates in the National Consultative Commission on Standardization for Environmental Protection, and specially performs the following programs in each transportation mode:

### 3.1 MARITIME

Our country has adhered to international conventions pertaining to the prevention of marine pollution by ships, and to International Maritime Organization (IMO), that also issues provisions on this matter.

### 3.2 AIR

The new Civil Aviation Act contains a specific chapter regarding Environmental Protection, based on regulatory criteria set by the International Civil Aviation Organization

(ICAO). Consequently, it has been established that aircrafts shall satisfy the specifications that on this matter are indicated in the corresponding regulation.

### 3.3 RAIL

Federal Government promotes railroad use for transporting freight to long distances, and its connection with other modes of transportation through multimodal and interior freight terminals.

Additionally, and as a part of the administrative and operative reorganization activities, environmental audits are carried out previously to privatization with the purpose of protecting environment in places where railroad activities are performed.

## 4. Safety and Security

### 4.1 MARITIME

The CGPMM is responsible for inspecting and certifying, or authorizing third parties to inspect vessels, according to the articles included in international treaties, in the corresponding laws, standards and permits on matters related to safety in navigation. It also has the authority to fine violators of provisions on the subject.

Harbor Master's Offices have under their responsibility the surveillance of ports' safety and depth in navigable waterways and the assistance and rescue in national waters.

Other activities of the Harbor Master in order to guarantee safety are the issuance of titles and licenses that credit the capability of personnel that operates the infrastructure and services of this mode of transportation, aside from the qualification and training of the merchant marine personnel.

### 4.2 AIR

According to the Civil Aviation Act, SST performs inspection and surveillance directly or through specialized companies authorized by the SCT, to air transportation and auxiliary services at airports, airdromes, heliports, and equipment for the assistance to navigation of aircrafts and their maintenance programs, of airlines and of private air services, of aeronautical repair shops and of qualification and training centers for airmen.

The new Act confirms the need for contracting and maintaining in effect insurance policies that cover damage liabilities to passengers, freight, checked-in baggage or third parties whose goods or persons were to be damaged due to an aircraft operation.

### 4.3 RAIL

SST is empowered to supervise and inspect railroad infrastructure, equipment and operations, according to the corresponding regulations.

Within the regulatory framework in effect, pertaining to Land Transportation of Dangerous Materials and Remains, Operative Modernization and Electrification of Railroads, technical studies continue to be carried out for the authorization of installations and programs destined to the safe railroad operation.

#### 4.5 GENERAL

SST has a Transportation Preventive Medicine Area that determines the psychological and physical characteristics that should be met by personnel involved in the operation of federal highway, railroad, maritime and air transportation. It also performs medical examination to such personnel and issues a medical opinion on the physical and psychological capability to operate the above-mentioned transportation modes. Likewise, it carries out drug tests to the aforementioned personnel.

#### 5. Standards

Mexico has a legal framework shaped after the Federal Act on Metrology and Standardization and a National Standardization Commission, conformed by several work groups that are integrated into Consultative Committees, according to each branch of activity. In SCT case, there are two Consultative Committees: Highway Transportation and Air Transportation. Representatives for the Government, from private and academic sector, and service user participate in them.

#### 5.1 MARITIME

Within the Mexican Official Standards, there is a chapter related to technical specifications of constructions, equipment, vessels, navigation and maritime and port services.

#### 5.2 AIR

SST coordinates the Air Transportation National Standardization Consultative Committee. In it, themes related to airport infrastructure and installations, engineering, safety, operations and equipment to service air navigation are discussed.

#### 5.3 RAIL

Within the framework of the Land Transportation Standardization Consultative Committee, the Railroad Infrastructure and Equipment Subcommittees are now working on the definition of technical specifications for railways, equipment and specially for the transportation of dangerous materials and remains.

#### 5.4 HIGHWAY

In relation to infrastructure, the Commission for Standardization, Specifications and Unitary Prices is responsible for the issuance of Roads and Bridges Mexican Official Standards.

Within the framework of the above-mentioned Land Transportation Consultative Committee, the Subcommittees for Dangerous Materials and Remains; Vehicles, Parts, Components and Identification Specifications, and Services Functioning Subcommittees are working on the standardization of several issues.

In order to increase the level in the supervision of specialized matters that require the use of new technology, private companies have been authorized to perform the inspection of contaminant emissions in federal highway vehicles. There are projects in process for establishing Weight and Dimensions Control Centers, Drivers Training Centers and

Technical Inspection Centers for the verification of physical and mechanical conditions of the above-mentioned vehicles.

III. Describe how your transportation system is organized between national, regional, and local governments. Discuss the intergovernmental relationships by transportation mode.

With the purpose of promoting the communication with State Governments, there is an SCT representation in each State known as SCT Center, which has sufficient faculties to resolve in a timely manner the proposals of local authorities.

In order to strengthen the coordination of transportation system among the three levels of government, a Federal Transportation Consultative Committee has been created in each State. In them, federal authorities represented by the SCT Center, State authorities, service users and providers participate. There is one Subcommittee for each transportation mode.

To coordinate the commitments of each of the above-mentioned entities, the formulation of a Transportation Guideline Plan for each State is being accomplished, making connection among services easier and better as well as setting concrete measures for its development.

Besides, in the SCT framework of competence, there is a representation within the Planning Committee for the Development of Federal Entity (COPLADES).

III.1 MARITIME

For the attention of specific problems in those States with coasts, there are Maritime Transportation Consultative Subcommissions, where, aside from the participation of permanent Federal and State representatives, the Harbor Master and the administrator, as well as service users and providers, also participate.

Likewise, to facilitate the relationship between Federal and local authorities, SCT Center authorizes and supervises some port constructions and services, and it also grants navigation permits, according to the activities that were previously decentralized.

III.2 AIR

The Intergovernmental coordination for the development of this transportation mode in each State is given through the Air Transportation Consultative Subcommission. Finally, there is an Airport Security Committee in every airport in which local, state and federal authorities participate, as well as airline and airport representatives, the Airport Commander (aeronautical authorities representatives), the Administrator and local, State and Federal authorities participate.

III.3 RAIL

The railroad freight and passenger transportation that crosses two or more States and which operate in the border limits are exclusively of Federal competence. In order to solve railroad problems in each State, Federal and State authorities, users and the regional management of service provider company, FNM, coordinate by means the Railroad Transportation Consultative Subcommission.



The above-mentioned powers may be executed irrespectably of the fact that SCT Centers' Federal authorities and the Superintendents of FNM coordinate directly and at any time with State and Municipal Government for the attention of issues on this matter.

As it has been pointed out, as a result of the new Railroad Service Regulatory Act, the privatization of this transportation mode will be implemented. Therefore, the aforementioned scheme of coordination will have to be reviewed under a new organizative form.

An important advance in the decentralization of the Federation faculties which will contribute to the efficiency of the new model, is the power granted to the SCT Center to control and supervise at a local level, the construction of new projects, the condition of equipment and safety measure to be complied with in railroad transportation operation, as well as to approve the execution of minor works destined to the maintenance and improvement of railroad system.

#### III.4 HIGHWAY

On this matter, each State has a Highway Transportation Consultative Subcommittee in which there is an important participation of representatives of the National Chambers of Freight, Passenger and Tourist Highway Transportation. Also, a coordination agreement has been subscribed with the purpose of extending the deregulatory actions applied in Federal jurisdiction to State and Municipal fields. SCT Centers, under the provisions of Federal Government, locally grant permits for rendering freight, passenger and tourist highway transportation services in their different modalities.

In relation to highway infrastructure, the above-mentioned Centers may carry out public biddings for hiring the execution of works with private parties, or agreements with State and Municipal Governments in which the execution of works in cooperation are formalized to back social development. SCT Centers also provide advise and technical services to State road agencies and support the SCT in project supervision and in locally built works to verify the compliance with the corresponding legal and technical provisions.

- IV. Identify the operations and services that are performed by private or semi-private organizations within your transportation modes.

#### IV.1 MARITIME

In relation to ports, a scheme for the integral port administration was designed, whereby the use, profit, construction, operation, and exploitation of public properties and the construction of installations in ports, terminals and marinas are granted in concession. Concessionaires of port administration are responsible for hiring specialized port services. Likewise, private enterprises are authorized to build maritime and dredging works in lagoons, coasts, beaches, estuaries and bays.

The operation and exploitation of vessels at high-sea, coast and interior traffic, as well as tourist cruises, is open to ship owners and private national or foreign vessels, provided the conditions described in section VIII.1 prevail.

## VI.2 AIR

The construction, relocation, enlargement, modernization, operation, exploitation and administration of airports are responsibilities of the public agency ASA, which, through public bidding hires constructors to carry out these works, and specialized enterprises for some airport services. On its part, the public decentralized agency, SENEAM, provides control services to navigation in Mexican airspace.

Regardless of the preceding statement and as mentioned before, the privatization of airports is now in process with the purpose of promoting a larger participation of private sector in airport infrastructure.

National air transportation service is provided by national airlines, and only one of them (Mexicana de Aviación) has government participation. International service is provided by national and foreign companies under to bilateral air transportation agreements.

Activities such as technical supervision to aircrafts, airline services, aeronautical repair shops and aviation schools may be performed by private enterprises.

## IV.4 RAIL

The expansion, maintenance and reconstruction of railways, as well as providing transportation by railroads are responsibilities of FNM; nevertheless, as commented before, the recent updating of the regulatory framework promotes intensively private investment in the construction, administration and operation of railroad infrastructure and services.

In regard to railroad equipment, and subject to a precise definition of the appropriate measure to this respect, in the construction of tractive and hauling equipment, as well as in the maintenance of specialized equipment, the Canadian company Bombardier, which acquired the state-owned enterprise Constructora Nacional de Carros de Ferrocarril is participating. The repair and maintenance or reconstruction of non-specialized equipment is carried out by private shops or by FNM itself, although there is the option of private companies renting hauling equipment for transportation of their products, and in exchange, repairs are done with their own resources.

## IV.4 HIGHWAY

The construction, exploitation, operation and maintenance of highways, federal bridges and auxiliary works are granted in concession to national private enterprises or to companies constituted according to Mexican law. State-owned enterprise, CAPUFE, may also be a concessionaire to carry out these works. In relation to works in charge of Federal or State Government, these may be executed by contracts to private companies through public bidding.

Highway freight, passenger and tourist transportation and their connected services are provided by national carriers or by companies constituted according to Mexican law.

In accordance with the opening terms established in the North American Free Trade Agreement (NAFTA), subscribed in December 17, 1992, the opening of transborder trade of services will be subjected to the following terms and percentages.

**In relation to International Tourist Service:**

- By the enactment of NAFTA, the United States of America will allow Mexican enterprises to operate previously hired chartered tourist trips by bus.
- Mexico and Canada will continue allowing the operation of these services to carriers of both countries, that are authorized to provide these services in their countries.

**Regarding International Freight Service:**

- Three years after the subscription of NAFTA, transborder freight services to and from territories of bordering States of Mexico and USA.
- Six years after the date of enactment, transborder freight services to and from Mexican territory. This provision excludes domestic and inland services.

**In regard to passenger services:**

- Three years after the enactment of NAFTA, transborder services will be allowed by buses with fixed itinerary

It has been foreseen that certification agencies, test laboratories and verification services, responsible for checking the compliance of Mexican Official Standards related to Federal highway transportation may be operated by private parties duly accredited by the Federal Government.

V. Place an appropriate check by each of your transportation industry to describe its most important form of ownership or administration.

	National	Regional Local	Private	Semi- public *	Public
1 Port authorities	X				X
2 Port operations	X	X	X		
3 Ocean carriers			X		
4 Inland waterway carrier			X		
5 Airlines	X	X	X	X	
6 Airport authorities	X				X
7 Airport operations	X	X			X
8 Air traffic control	X				X
9 Railroad freight	X				X
10 Railroad passenger	X				X
11 Railroad commuter		X			X
12 Highway construction	X	X	X	X	X
13 Highway maintenance	X	X	X	X	X
14 Other					

\* Refers to Federal Government enterprises which can be decentralized entities, or those that operate with Federal funds.

VI. Provide an overview of new policy directions, major programs and projects, and new products that will make your transportation system more efficient.

Modernization efforts made by Mexico six years ago have shown encouraging results; nevertheless, the process shall be strengthened in order to consolidate the country's competitive position within a globalized economy.

Such efforts have allowed Mexican economy to enlarge and modernize its infrastructure, to develop new organizational schemes and to foster private participation in transportation sector.

In upcoming years, further structural changes will be undertaken in the transportation sector, according to the following priorities, in which substantial advances have been achieved.

- Modernization of the legal framework.
- Promotion of private investment in the infrastructure of communications and transportation.
- Development of competitive conditions to provide maximum quality, safety, efficiency and environmentally sound services.
- Promotion of intermodal transportation.
- Standardization of our transportation system with the rest of the world
- Redefinition of government as a regulatory body instead of as an owner and administrator of productive assets.

The objective of Mexican Government is to create an environment with equal opportunities, clear rules and a sound competition among transportation modes. Therefore, conditions have been generated that will allow the transformation of transportation system, so that it becomes consistent with our times, attractive to private investment and capable of facing the increasing traffic demands.

VI.1 MARITIME

Modernization actions, consequently, have been oriented to foster the participation of the national Merchant Marine to back our foreign trade and our country's transportation system with the purpose of balancing the integration of the latter. Accordingly, and to elevate the national component of naval industry, the regulatory and tax framework was modified and support was requested from financial institutions.

In relation to the national Ports System, the objectives are improving the quality, efficiency, productivity and safety of our port services, through the development and maintenance of the infrastructure, installations and corresponding equipment.

Consequently, during recent years, a restructuration process in port systems was undertaken through the creation of Integral Ports Administration (API's) that seek to establish the adequate mechanisms for a self-sufficient operation, and provide them with the authorization to sub concession specialized terminals.

Also outstanding in the modernization of this transportation mode, is the divestment of dockyards, ferries and the extinction of the decentralized public agency, Mexican Ports.

## VI.2 AIR

The development model for air transportation that was applied in Mexico until the end of the 80's had as an objective the protection of national industry. However, such a model fostered no competitiveness and limited the supply of that service.

In view of the new tendency of internationalization of the economy, a trade opening policy was established making space for supply increase in air transportation services and introducing new routes and more accessible tariffs. Nevertheless, the benefits of this policy generated excess supply and disloyal practices emerged among airlines, diminishing the industry's capital and reducing service quality.

In order to solve these problems, an updating of the regulatory framework of this sector was accomplished, allowing the consolidation of an orderly opening scheme, granting certainty to participants and impelling the development of this transportation mode by means of clear rules for the use of national airspace in equitable and efficient conditions.

In relation to the financial situation of national airlines, a liability restructuring program is being undertaken, and investors' support is sought in order to allow an increased service quality, competitiveness, continuity and safety.

Regarding airport infrastructure and as it has been commented, the implementation of a regulatory framework that allows private participation is being formulated with the purpose of extending investments in this sector, within the airport system as a whole, and in all its installations.

With the purpose of preventing saturation problems in Mexico City International Airport, technical, operative and economical studies have been performed for determining an alternate airport for Mexico City metropolitan area. The last phase regarding costs, environmental impact and value of an alternate airport under different divestment scenarios is being reviewed. The agreement upon the project's location is being studied among the different agents involved in aeronautical sector.

Taking into consideration the accelerated advances observed in air traffic control at world scale and the broad opening process to the exterior, there is a commitment for carrying out a technical, operative and administrative restructuring of SENEAM, coherent with the incorporation of new technologies that allow improving the use of airspace and present security standards. This restructuring program will be comprehensive and progressive, according to the availability of financial resources.

## VI.3 RAIL

Considering the role performed by railroads as an instrument for the promotion of development, its impact in the competitiveness of Mexican economy and in the productivity of an integrated transportation system, its character as an activity reserved to the State has been restated, so that without ceasing to be a priority, it will be possible to promote social and private participation in its modernization

Accordingly, an integral restructuring process in the national railroad system has begun. In it, private sector participation will be determinant. Therefore, work has been done on the establishment of clear and precise regulations that encourage competitive services.

Mainly, a participation scheme is now under study and shall be defined during this year.

Simultaneously, the operative and administrative reorganization of FNM is being reviewed as a previous step to its restructuring, being outstanding among other measures, the studies for the cancellation of unproductive services and tracks.

#### VI.4 HIGHWAY

The main activities that have been achieved for accomplishing the deregulation process in this field are the following:

- Modernization of the regulatory framework that was brought about with the publication of the new Roads, Bridges and Federal Highway Transportation Act (December 1993) and its regulations.
- Elimination of exclusions and opening of permit granting have increased the supply and new service modalities.
- Elimination of routes and vacant returns by allowing that private transportation offers its services to third parties, and that specialized freight vehicles may transport any type of products, except dangerous materials and remains.
- Elimination of the need to hire services in freight terminals.
- Price liberalization between the user and the supplier of services without government intervention.
- Coordination for insurance policy contracting with general and specialized public freight service suppliers.
- Fostering private investment in central passenger terminals.
- Coordination with travel agencies to integrate transportation to tourist promotions.

In order to consolidate a modernized transportation and to carry out adjustments according to the results observed in its implementation, the following is being done:

- Continuing the harmonization of Mexican Official Standards with international regulations.
- Making adjustments to regulation for a fair competition that takes into consideration the need to protect highway infrastructure, quality, safety in services, and tax interests.
- Strengthening the renewal program of vehicles.
- Working in the implementation of training centers and in the updating of simulators, in weight and dimension control centers, technical inspection centers to supervise physical and mechanical conditions, and vehicle locating systems by satellite.

- Promoting the alliance among carriers for facing competition with the enactment of NAFTA.

## FINANCING

VII. Identify the methods (e.g., user fees, license fees, tolls, taxes), mechanisms, and institutions (e.g., National government, multilateral organizations) that provide funding for transportation infrastructure projects.

### VII.1 MARITIME

The construction of port infrastructure is being undertaken with Federal Government resources. However, since 1994, an integral restructuring of the port system was implemented, whereby each port's mercantile entities became the means for granting concessions of terminals and services provided in them to private sector. Thus, the Government obtains revenues for these concessions.

Concession granting has already initiated with the public offering and the consecutive assignment of container and multiple-use terminals at the four main ports of the country.

### VII.2 AIR

At present, airport infrastructure is being built, to a great extent, with public resources generated by ASA, although some supplementary network installations have been possible by means of joint ventures with private sector, such as terminal buildings.

However, as it has been pointed out, a guiding framework is being defined in order to broaden private participation in the construction, maintenance, enlargement, relocation, modernization, administration and operation of the airport network.

### VII.3 RAIL

Nowadays, project financing and railroad infrastructure works are being carried out with Federal Government resources. Nevertheless, as it was said before, since the amendment to article 28 of the Constitution and the publication of the new Regulatory Act, it was decided that a private participation scheme for this transportation mode will operate through concession granting, whereby the Government will receive revenues and will achieve considerable savings eliminating resource transfers.

### VII.4 HIGHWAY

On the one hand, infrastructure construction that is not profitable from economic viewpoint but that has an impact on social and regional development is financed with Federal Government resources.

On the other, those projects where potential profit is identified are strongly promoted to private participation, under the concession regime. That investment is recovered through road tolls. As mentioned above, this regime is being improved so that private investment recovery terms are extended.



### VIII. What opportunities exist for foreign investments in your transportation infrastructure and services?

In Mexico there is a clear consciousness of the benefits that foreign investments contribute to economic development and recovery in significant areas. Consequently, a series of measures have been adopted for promoting investments, being outstanding the changes in national economic policy and the amendment of the legal framework on this matter. This was achieved with the publication of the new Foreign Investment Act on December 1993. Accordingly, a campaign has been launched for encouraging mechanisms for the joint venture of foreign capital with national, which brought about an important simplification of steps.

As a result of the above-mentioned Act, financing of productive activities with foreign resources has significantly increased in recent years. It seems convenient to remember that in 1992, Mexico had the third place as a recipient of foreign investment among developing countries and the first, among Latin American countries.

In this field, from the total of foreign investment attracted by our country in 1993, almost the fifth part of the accumulated total was allotted to communications and transportation. However, it has been accepted that this participation should be increased due to the fact that the major share was applied to communications area.

In 1994, direct foreign investment was increased by 60%, in relation to the previous year, basically in consideration to NAFTA expectations. Nevertheless, in 1995, growth is expected to be more discreet, in view of the temporary economical situation the country is facing.

In order to maintain investors' confidence and to recover a sustained growth in direct foreign investment, the Government is implementing a series of policies directed to intensify even more public enterprise privatization and promoting structural changes in different sectors, as in transportation.

#### VIII.1 MARITIME

In this subsector, foreign investment is allowed up to 49% in Integral Ports Administration, which may be subconcessioned up to 100 % in connected services and specialized terminals coordinated by them.

The operation or exploitation of high-sea vessels, that include international maritime transportation and towing is open to ship owners and vessels of all the countries, whenever there is reciprocity in terms of international treaties.

The operation and exploitation of inland navigation vessels is reserved to Mexican ship owners with Mexican vessels. When no adequate Mexican ships exist are unavailable, or whenever public interest so demands, SCT will grant permits to Mexican ship owners, and in case there are no interested Mexican ship owners, permits may be granted to foreign ship companies.

The operation and exploitation of coast navigation vessels may be performed by Mexican or foreign ship owners, with Mexican or foreign vessels. In the case of foreign ship owner or vessels, a permit from SCT will be required, verifying previously that reciprocity and equivalent conditions exist, with the country in which the vessel is registered and with the

country where the ship owner has his social address and his real and effective business address.

The operation and exploitation of inland and coast navigation of tourist cruises, as well as dredges and naval artifacts for port construction, maintenance and operation may be performed by Mexican or foreign ship owners and with Mexican or foreign vessels or naval artifacts.

The SCT, with a previous opinion of the Federal Competition Commission, will resolve that certain coast and high-sea routes, partial or total, may only be performed by Mexican ship owner with Mexican vessels or so reputed, whenever competition principles are not respected and national economy is affected.

## VIII.2 AIR

In national air services, air taxis and specialized air transportation, foreign investment may be up to 25%.

Within NAFTA framework, the participation of United States and Canada enterprises will be allowed for supplying specialized air services, such as air fumigation, fire extinction, air photography, etc.

There are no restrictions for foreign companies to perform the construction, maintenance and repair of aircrafts, provided they comply with technical requirements and other aeronautical requisites set by the corresponding provisions.

In order to have a sufficient and modern airport infrastructure, new spaces and opportunities have opened up for promoting foreign private investment participation on this matter.

When foreign participation in the administration of air terminals surpasses 49%, an authorization from the National Commission of Foreign Investments will be necessary.

## VIII.3 RAIL

The new aforementioned Railroad Service Regulatory Act opens the possibility of participating in the commercialization and operation of services to national and foreign capital, as well as for the construction and modernization of railroad infrastructure.

Up to 49% foreign participation is admitted in connected services of this sector, that are passenger services, maintenance and reconstruction of tracks, loops, tractive and drag equipment, repair shops, organization and commercialization of unitary trains, operation of internal freight terminals and railroad telecommunications.

## VIII.4 HIGHWAY

In the construction of highway infrastructure, foreign investment may be of 49% without the need of an authorization, and for higher percentages, it shall be approved by the National Commission of Foreign Investments.

It is convenient to point out that international passenger, tourist and freight land transportation activities, between two points of the national territory, are reserved to

Mexicans or to Mexican companies with exclusion clauses for foreigners. The administration of bus terminals and auxiliary services is in the same situation.

However, within NAFTA framework, foreign investment in passenger and freight international highway transportation will be subject to the following calendar:

Starting December 18, 1995, up to 49% of social capital of Mexican societies.

Starting January 1st, 2001, up to 51% of social capital of Mexican societies.

Starting January 1st, 2004, up to 100% of social capital of Mexican societies without the need of obtaining a favorable resolution from the National Commission of Foreign Investments.

#### VIII.5 INFRASTRUCTURE

An authorization from the above-mentioned Commission is required so that foreign investment may participate with a percentage to 40% higher of social capital of societies that perform building, construction and installation activities. Starting January 1st, 1999, foreign investment may participate up to 100% of the social capital of Mexican societies dedicated to the aforesaid activities, without the need of approval from the National Commission of Foreign Investments.

**ATTACHMENT 1**

**FEDERAL AUTHORITIES THAT ADMINISTER AND Y REGULATE  
TRANSPORTATION**

**TRANSPORTATION AREA**

**SECRETARIAT OF COMMUNICATIONS AND TRANSPORTATION  
(SECRETARIA DE COMUNICACIONES Y TRANSPORTES (SCT))**

SECRETARIO: LIC. CARLOS RUIZ SACRISTAN  
AV. UNIVERSIDAD Y XOLA, CUERPO "C", 1er. piso  
MEXICO, D. F., C.P. 0302  
TEL: 519-74-56 Y 530-92-03

**UNDERSECRETARIAT OF TRANSPORTATION  
(SUBSECRETARIA DE TRANSPORTE)**

SUBSECRETARIO: DR. AARON DYCHTER POLTOLAREK  
AV. UNIVERSIDAD Y XOLA, CUERPO "C", 1er. PISO, ALA ORIENTE  
MEXICO, D. F., C.P. 03020  
TEL: 530-49-78. 519-44-08- 559-51-65 Y 530-73-90

**LAND TRANSPORTATION OFFICE  
(DIRECCION GENERAL DE AUTOTRANSPORTE FEDERAL)**

DIRECTOR GENERAL: ING. JOSE AGUILAR AL CERRECA  
CALZADA DE LAS BOMBAS No. 411, 1er PISO  
MEXICO, D. F., C.P. 04230  
TEL: 684-06-38 Y 684-07-57

**CIVIL AERONAUTICS OFFICE  
(DIRECCION GENERAL DE AERONAUTICA CIVIL)**

DIRECTOR GENERAL: ING. JUAN ANTONIO BARGES MESTRE  
PROVIDENCIA No. 807-6o. PISO  
MEXICO, D. F., C.P. 03100  
TEL: 687-76-60, 523-66-42 (DIRECTOS) Y 687-95-44 EXT. 250

**TARIFFS, RAILROAD AND INTERMODAL TRANSPORTATION  
(DIRECCION GENERAL DE TARIFAS, TRANSPORTE FERROVIARIO Y MULTIMODAL)**

DIRECTOR GENERAL: LIC. OSCAR CORZO CRUZ  
EUGENIA No. 197-10o. PISO  
MEXICO, D. F., C.P., 03020  
TEL: 687-59-20

*FEDERAL HIGHWAY POLICE OFFICE*  
(DIRECCION GENERAL DE LA POLICIA FEDERAL DE CAMINOS)

DIRECTOR GENERAL: CDTE. ANTONIO ARIZPE MIRELES  
CALZADA DE LAS BOMBAS No. 411-2o. PISO,  
EDIFICIO ANEXO A LA DIREC. GRAL. DE TRANSPORTE TERRESTRE  
MEXICO, D. F., C.P. 04230 671-23-55 EXT. 2932

*TRANSPORT PREVENTIVE MEDICINE OFFICE*  
DIRECCION GENERAL DE PROTECCION Y MEDICINA PREVENTIVA EN EL  
TRANSPORTE

DIRECTOR GENERAL: LIC. JUAN RAMON URIARTE  
CALZADA DE LAS BOMBAS No. 411-2o. PISO  
MEXICO, D. F., C.P. 04230  
TEL: 684-37-88 Y 684-38-35

*UNDERSECRETARIAT OF INFRAESTRUCTURE*  
(SUBSECRETARIA DE INFRAESTRUCTURA (SCT))

SUBSECRETARIO: ING. MANUEL RODRIGUEZ MORALES  
AV. UNIVERSIDAD Y XOLA, CUERPO "C", 1er. PISO  
MEXICO, D. F., C.P. 03020  
TEL: 519-82-66, 538-06-10 (DIRECTOS) Y 530-30-60 EXT. 3100

*FEDERAL HIGHWAYS OFFICE*  
(DIRECCION GENERAL DE CARRETERAS FEDERALES)

DIRECTOR GENERAL: ING. OMAR ORTIZ RAMIREZ  
ALTADENA No. 23, 1er. PISO  
MEXICO, D. F., C.P. 03810  
TEL: 687-19-90 (DIRECTO) Y 687-61-99 EXTS. 210 Y 211

*HIGHWAYS CONSERVATION OFFICE*  
(DIRECCION GENERAL DE CONSERVACION DE CARRETERAS)

DIRECTOR GENERAL: ING. CEDRIC IVAN ESCALANTE SAURI  
MAGDALENA No. 21  
MEXICO, D. F., C.P. 03100  
TEL: 669-16-01

*HIGHWAYS TECHNICAL SERVICES OFFICE*  
(DIRECCION GENERAL DE SERVICIOS TECNICOS)

DIRECTOR GENERAL: ING. OSCAR DE BUEN RICHKARDAY  
AV. COYOACAN No. 1895  
MEXICO, D. F., C.P. 03240  
TEL: 524-34-81 Y 524-73-25

**PORTS AND SEA VESSELS OFFICE**  
**(COORDINACION GENERAL DE PUERTOS Y MARINA MERCANTE)**

COORDINADOR GENERAL: LIC. ALFREDO BARANDA GARCIA  
MUNICIPIO LIBRE No. 377-12o. PISO, ALA "D"  
MEXICO, D. F., C.P. 03310  
TEL: 604-42-49 Y 604-38-29

**PORTS OFFICE**  
**(DIRECCION GENERAL DE PUERTOS)**

DIRECTOR GENERAL: LIC. MARCO ANTONIO DE STEFANO SAHAGUN  
MUNICIPIO LIBRE No. 377-4o. PISO, ALA "A"  
MEXICO, D. F., C.P. 03310  
TEL: 605-26-01

**SEA VESSELS OFFICE**  
**(DIRECCION GENERAL DE MARINA MERCANTE)**

DIRECTOR GENERAL: LIC. ARTURO ALCOCER LUJAMBIO  
MUNICIPIO LIBRE No. 377-6o. PISO  
MEXICO, D. F., C.P. 03100  
TEL: 698-72-13 (DIRECTO) Y 530-30-60 EXT. 4239

**PORT AUTHORITIES OFFICE**  
**(DIRECCION GENERAL DE CAPITANIAS)**

DIRECTOR GENERAL: ING. JESUS BUENTELLO MEDINA  
MUNICIPIO LIBRE No. 377-10o. PISO, ALA "A"  
MEXICO, D. F., C.P. 03310  
TEL: 601-20-97 Y 605-54-12

**DECENTRALIZED GOVERNMENT AGENCIES**

**NATIONAL RAILROADS OF MEXICO**  
**(FERROCARRILES NACIONALES DE MEXICO)**

DIRECTOR GENERAL: LIC. LUIS DE PABLO SERNA  
JESUS GARCIA No. 140-13o- PISO, ALA "A"  
MEXICO, D. F., C.P. 06348

**AIRPORTS AND AUXILIARY SERVICES**  
**(AEROPUERTOS Y SERVICIOS AUXILIARES)**

DIRECTOR GENERAL: LIC. JAIME CORREDOR ESNAOLA  
AVENIDA 602 No. 161  
MEXICO, D. F., C.P. 15620  
TEL: 571-45-45, 517-49-11 Y 784-48-22

**ATTACHMENT 2**

**STATE GOVERNMENT AUTHORITIES THAT ADMINISTER AND REGULATE  
TRANSPORTATION**

**AUTORIDADES ESTATALES QUE ADMINISTRAN Y REGULAN EL TRANSPORTE**

**AGUASCALIENTES**

SECRETARIO DE DESARROLLO SOCIAL  
DEL GOBIERNO DEL ESTADO  
COLON No. 110  
AGUASCALIENTES., AGS., C.P. 20000  
TEL: (49) 18-32-93 Y 18-16-00

**BAJA CALIFORNIA**

DIRECTOR DE TRANSITO Y  
TRANSPORTE DEL EDO.  
GOBIERNO DEL EDO. DE BAJA  
CALIFORNIA  
BOULEVARD BENITO JUAREZ Y  
FRANCISCO MONTEJANO No. 1  
MEXICALI, BAJA CALIFORNIA, C.P.  
21260  
TEL: (65) 66-26-39 Y 66-27-55

**BAJA CALIFORNIA SUR**

JEFE DEL DEPTO. DE TRANSPORTE  
PUBLICO DEL GOBIERNO DEL EDO. DE  
BAJA CALIFORNIA SUR  
ARTESANOS C/ARREOLA Y MADERO  
LA PAZ, B.C.S., C.P. 23000  
TEL: (112) 68-283-11

**CAMPECHE**

JEFE DEL DEPTO. DE TRANSPORTE  
PUBLICO DEL ESTADO  
AV. RESURGIMIENTO No. 77  
CAMPECHE, CAMP., C.P. 24030  
TEL: (981) 625-45, 623-09, 623-29  
FAX: 108-50

**COAHUILA**

DIRECTOR GENERAL DE TRANSPORTE  
EN EL ESTADO DE COAHUILA  
CALLE SALVADOR GONZALEZ LOBO Y  
SIERRA MOJADA  
SALTILLO, COAH., C.P. 25280  
TEL: (84) 16-43-65 Y 16-43-42 -  
FAX: 16-43-995

**COLIMA**

DIRECTOR DE TRANSPORTE  
20 DE NOVIEMBRE No. 235, CENTRO  
COLIMA, COL., C.P. 28000  
TEL: (331) 485-50  
FAX: 324-58

## **CHETUMAL**

DIRECTOR ESTATAL DE  
COMUNICACIONES Y TRANSPORTES  
CARRETERA CHETUMAL-BACALAR  
ENTRE LA GASERA Y LA S.A.R.H. KM.  
2.5  
CHETUMAL, QUINTANA ROO, C.P.  
77000  
TEL: (983) 227-57 Y 251-89 EXT. 106,  
FAX: 227-57

## **CHIAPAS**

SUBSECRETARIO DE GOBIERNO  
PALACIO DE GOBIERNO,  
TUXTLA, GUTIERREZ, CHIS., C.P. 29000  
TEL: (961) 356-73, Y 334-52  
FAX: 324-58

## **CHIHUAHUA**

JEFE DE LA OFICINA DE TRANSPORTES  
EDIFICIO GRAL. ANGEL TRIAS  
AV. REFORMA Y CALLE 25, PLANTA  
ALTA S/N  
CHIHUAHUA, CHIH., C.P.  
TEL: (14) 13-16-72 Y 13-38-77  
FAX: 26-64-28

## **DURANGO**

DIRECTOR GENERAL DE TRANSITO Y  
TRANSPORTE DEL ESTADO  
NEGRETE No. 622 OTE.  
DURANGO, DGO., C.P. 34000  
TEL: (181) 17-12-42  
FAX: 17-12-42

## **ESTADO DE MEXICO**

SECRETARIO DE COMUNICACIONES Y  
TRANSPORTES EN EL ESTADO DE  
MEXICO  
PASEO VICENTE GUERRERO No. 485, 2o.  
PISO  
TOLUCA, EDO. DE MEXICO., C.P. 50120  
TEL: 91-72-15-97-52, FAX: 13-39-80  
OFICINAS EN NAUCALPAN  
AVENIDA SAN MATEO No. 3  
EL PARQUE, NAUCALPAN, EDO. MEX.,  
C.P. 53398  
TEL: (5) 395-01-40 Y 358-9-00

## **GUANAJUATO**

DIRECTOR GENERAL DE TRANSITO Y  
TRANSPORTE  
KM. 7.5 CARRETERA GUANAJUATO-  
JUVENTINO ROSAS  
GUANAJUATO, GTO., C.P. 36000  
TEL: (473) 3-13-31  
FAX: 3-13-55



**GUERRERO**

DIRECTOR GENERAL DE LA COMISION  
TECNICA DE TRANSPORTE Y  
VIALIDAD DEL ESTADO  
GALO SOBERON Y PARRA No. 1  
CHILPANCINGO., GRO., C.P. 23887

**HIDALGO**

DIRECTOR GENERAL DE TRANSPORTE  
DEL EDO.  
PALACIO DE GOBIERNO 2o. PISO  
PLAZA JUAREZ S/N  
PACHUCA, HGO., C.P. 42000  
TEL: (771) 314-50  
FAX: 314-

**JALISCO**

DIRECTOR GENERAL DE TRANSPORTE  
PUBLICO  
ALCALDE Y CIRCUNVALACION S/N  
GUADALAJARA, JAL., C.P. 44270  
TEL: (36) 624-53-74  
FAX: 624-86-60

**MICHOACAN**

DIRECTOR GENERAL DE TRANSPORTE  
DEL EDO.  
AVENIDA MADERO Y YUCATAN  
MORELIA, MICH., C.P. 38010  
TEL: (43) 26-41-85 Y 26-41-73  
FAX: 26-41-61

**MORELOS**

SUBSECRETARIO DE TRANSPORTE DEL  
EDO. DE MORELOS  
PRIVADA DE LA LUZ S/N  
CUERNAVACA, MOR., C.P. 62450  
TEL: (73) 16-35-72 Y 16-83-74

**NAYARIT**

DIRECTOR DE TRANSITO Y  
TRANSPORTE DEL GOBIERNO DEL  
ESTADO  
AVENIDA REY NAYAR E INSURGENTES  
TEPIC. NAY., C.P.  
TEL: (321) 357-11 Y 357-12  
FAX: 357-13, 357-14 Y 357-15

**NUEVO LEON**

SECRETARIO DE DESARROLLO  
URBANO Y OBRAS PUBLICAS  
CHURUBUSCO NORTE No. 495  
MONTERREY, N.L., C.P. 64460  
TEL: (83) 55-17-00 Y 55-17-10  
FAX: 55-15-59

**OAXACA**

SECRETARIO DE PROTECCION  
CIUDADANA  
5 DE MAYO No. 200, PLANTA BAJA,  
CENTRO DE OAXACA  
OAXACA, OAX., C.P. 68000  
TEL: (951) 470-41, 469-96 Y 476-47  
FAX: 476-47 EXT. 13

**PUEBLA**

DIRECTOR GENERAL DE TRANSITO EN EL EDO.  
ROSENDO MARQUEZ Y PEROTE No. 1303  
PUEBLA, PUE., C.P. 72160  
TEL: (22) 30-15-46, 48-12-75 Y 88-02-42  
FAX: 48-33-64 Y 48-22-31

**QUERETARO**

DIRECTOR GENERAL DE SEGURIDAD PUBLICA EN EL EDO. DE QUERETARO  
CALLE OCAMPO ESQUINA ZARAGOZA  
QUERETARO, QRO., C.P. 76000  
TEL: (42) 12-30-03  
FAX: 14-11-53

**SAN LUIS POTOSI**

DIRECTOR GENERAL DE COMUNICACIONES Y TRANSPORTE ESTATAL  
EDIFICIO DE SEGURIDAD PUBLICA, 1er PISO  
SAN LUIS POTOSI, S.L.P., C.P. 78000  
TEL: (48) 12-54-12, 12-57-18 Y 12-54-48  
FAX: 14-89-67

**SINALOA**

SECRETARIO DE VIALIDAD Y TRANSPORTES  
DEL GOBIERNO DEL EDO. DE SINALOA  
ESCOBEDO Y PALIZA  
CULIACAN, SIN., C.P. 08100  
TEL: (67) 12-78-82 Y 13-98-74  
FAX: 12-39-93

**SONORA**

DIRECTOR GENERAL DE TRANSPORTE  
MORELIA Y PINO SUAREZ No. 199,  
PLANTA ALTA  
HERMOSILLO, SON., C.P. 83000  
TELS Y FAX: (62) 12-52-59 Y 12-50-94

**TABASCO**

DIRECTOR GENERAL DE TRANSITO DEL EDO.  
AVENIDA 16 DE SEPTIEMBRE ESQ. PERIFERICO  
VILLAHERMOSA, TAB., C.P. 86190  
TEL: (93) 15-43-48  
FAX: 15-43-48

**TAMAULIPAS**

SECRETARIO DE SEGURIDAD PUBLICA  
CALLE RIO SAN MARCOS No. 105  
FRACCIONAMIENTO ZOZAYA  
CD. VICTORIA, TAMPS., C.P. 87070  
TEL: (131) 12-53-62  
FAX: 12-82-31

**TLAXCALA**

SECRETARIO DE COMUNICACIONES Y TRANSPORTES DEL EDO.  
KM. 1.5 CARRETERA TLAXCALA-PUEBLA  
TLAXCALA, TLAX., C.P. 90300  
TEL: (246) 2-17-84, 2-53-38 Y 2-25-08,  
FAX: 2-17-84

**VERACRUZ**

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# NEW ZEALAND

## NEW ZEALAND

### INTRODUCTION

Government structures for administering the different sectors of the New Zealand economy have been undergoing radical change. The reorganization of administrative arrangements in the transportation sector has been at the leading edge of the government sector reform. Details of the transport sector reform are outlined in Appendix 1.

First, the Government has separated out commercial transport operations controlled by the State, and formed them into public corporations, known as State Owned Enterprises (SOEs). SOEs operate in a purely commercial manner, returning a dividend to the Government. It is envisaged that at some stage these corporations will be in a position to be sold.

Second, the Government has separated out the regulatory aspects of transport by mode and formed Crown Owned Entities. These entities are expected to operate on a user pays basis with the Government funding only those functions which are undertaken in the wider public interest (e.g. standards or rule development). These entities operate under a Management Board, which has industry representation. Transit New Zealand was created in 1989 and the Civil Aviation Authority was formed in August 1992. A Maritime Safety Authority and a Land Transport Safety Authority were created in August 1993.

The function of the traditional government transport department, the Ministry of Transport is now confined to being a policy and monitoring department for the Government's interests in the transport sector.

### ADMINISTRATION

- I. List the national and regional (state) Government authorities that administer and regulate your transportation industry with a contact office, address and phone number.

#### **NATIONAL**

Ministry of Transport  
P.O. Box 3175  
Wellington  
New Zealand  
Tel : (64) (4) 472-1253

Secretary for Transport

Civil Aviation Authority  
P.O. Box 31-441  
Lower Hutt  
New Zealand  
Tel : (64) (4) 560-0400

Director Civil Aviation

Transit New Zealand  
P.O. Box 5084  
NEW ZEALAND  
Tel : (64) (4) 499-6600

General Manager

Transport Accident  
Investigation Commission  
P.O. Box 1210

Chief Executive

Wellington  
New Zealand  
Tel : (64) (4) 473-3112

Airways Corporation of  
New Zealand Ltd  
P.O. Box 294

Chief Executive

Wellington  
New Zealand  
Tel : (64) (4) 471-1888

New Zealand Police  
P.O. Box 3017  
Wellington

Commissioner

New Zealand  
Tel : (64) (4) 474-9499

Maritime Safety Authority  
P.O. Box 27-006  
Wellington  
New Zealand

Chief Executive

Tel : (64) (4) 382-8198

Land Transport Safety Authority  
P.O. Box 27-459  
Wellington

Chief Executive

New Zealand  
Tel : (64) (4) 382-8300

II. Describe how the major transportation modes (i.e. maritime, aviation, rail, highway) are regulated by your national authorities. Discuss the general framework of regulations in the following areas:

### **Infrastructure Development**

**MARITIME.** Port Administration is decentralised and port operations are undertaken by Port Companies. All shipping services are private operations.

**AIR.** The Airways Corporation, an SOE is responsible for the operation and maintenance of the air traffic control and navigation system.

Until 1986, New Zealand's major airports were operated by separate joint venture partnerships between central and local government for each airport concerned (joint venture airports). Since 1986 many joint venture airports have been restructured as limited liability companies, subject to normal company law. The former joint venture partners have become shareholders in the new companies. All three international airports have been restructured. Where airports are operated by companies, the airports are operated autonomously with responsibility for decision making vested in a board of directors. Airport companies are free to set their own charges, provided that they first consult with the airlines using the airport concerned. Capital expenditure is financed from internally generated revenues or private sector borrowings. Shareholder capital injections are possible but would only be made where a commercial return is indicated on the investment. Joint venture airports are operated by the local authority partner, with capital expenditure decisions subject to central government approval. Capital expenditure costs are shared by the partners and charges are set on a cost related basis (on a similar basis to airport companies) but are also subject to central government approval.

**RAIL.** Railways are owned and operated by a private company, New Zealand Rail Limited. The rail corridors (i.e. the land underneath the tracks) is owned by an SOE, the New Zealand Railways Corporation, in order to protect the relevant land holdings.

**HIGHWAY.** Transit New Zealand funds the construction and maintenance of State Highways and contributes on approximately a 1:1 basis with the 76 local authorities for the construction and maintenance of local roads. Projects are assessed on a benefit-cost basis and are funded to a level of benefit-cost ratio dependent on the funds made available by the Government.

### **System Operations and Maintenance**

**MARITIME.** The Maritime Safety Authority is responsible for ship safety, ship registration, and oil pollution responsibilities.

**AIR.** The Airways Corporation is responsible for the operation and maintenance of the air traffic control and air navigation aids. This includes services to military aviation.

**RAIL.** New Zealand Rail Limited is responsible for its system operations and maintenance.

**HIGHWAY.** The Land Transport Safety Authority regulates the commercial truck fleet by maintaining and operating a road user charge system (axle weight/distance charges, metered by hubodometers), which is enforced by the New Zealand Police. The maintenance of state highways is the responsibility of Transit New Zealand and the local road network is the responsibility of local authorities.

#### **Environmental Protection**

The Resource Management Act 1991, sets the framework for environmental protection in New Zealand. The Act allows for the setting of national environmental standards and national policy statements. All projects are required to address the impact on the environment when applying for a resource consent. With respect to all transport modes the Ministry of Transport is charged with advising the Minister on the environmental impacts of transport and appropriate policy responses.

**MARITIME.** The Maritime Safety Authority is responsible for developing and implementing a marine oil pollution response strategy for New Zealand. The Authority maintains a national oil pollution response capability for controlling oil pollution within the New Zealand 200 mile exclusive economic zone. Regional councils are responsible for oil pollution response within harbour limits. The Authority is also responsible for issuing permits required under the London Dumping Convention.

**AIR.** Noise and emission engine certification standards are based upon USA standards. Noise controls pertaining to airport operations are the responsibility of local authorities.

**RAIL.** There are no specific environmental standards affecting rail.

**HIGHWAY.** Transit New Zealand is required to take account of environmental considerations in evaluating the benefit-cost of highway construction projects.

#### **Safety and Security**

The safety of the transport system remains a major area of Government activity. The Government is seen as having a primary function to ensure that the users of transport systems and those whose lives may be affected by those systems are not put at undue risk by the operation of those systems. Traditionally enforcement has relied on quantitative controls of direct, constant, and labor intensive inspection of operators and vehicles. A fundamental reform of transport safety policy is now



being developed on the principle of quality systems management. Generally referred to as the "safety audit" policy, it is related to the Total Quality Management approach and forms the basis of a developing policy for transport safety management.

New Zealand also has an anti nuclear policy, embodied in legislation, which applies to all modes e.g. electricity, arms, and propulsion. This means that all ships and aircraft entering areas of New Zealand sovereignty must be nuclear free. This policy is enforced by the Central Government.

**MARITIME.** The Maritime Safety Authority promotes compliance with safety standards for ships and their crew operating within New Zealand waters. The Authority also owns all coastal navigation aids and the coastal distress and safety radio system. The Authority also undertakes marine accident investigations and is involved in marine search and rescue. The Coast Guard in New Zealand is a voluntary organization. The Transport Accident Investigation Commission, investigates all major marine accidents.

Health and safety on wharfs are controlled by the Department of Labor.

**AIR.** The Civil Aviation Authority is responsible for ensuring the safety regulatory regime for New Zealand aviation. The Civil Aviation Authority is also responsible for investigating all aviation incidents and accidents from an enforcement perspective. The Transport Accident Investigation Commission is responsible for investigating all major aviation accidents to establish causal factors and make recommendations to prevent reoccurrence.

Air side security at international airports is the responsibility of the Aviation Security Service of the Civil Aviation Authority. Land side security is the responsibility of each airport.

**RAIL.** At present New Zealand Rail Limited is responsible for undertaking their own safety inspection, although the design specifications of engines are subject to inspection by the Maritime Safety Authority. Railway safety systems are undertaken by a "safety audit" approach. The Transport Accident Investigation Commission, is responsible for investigating all the major railway accidents to establish causal factors and made recommendations to prevent reoccurrence.

**HIGHWAY.** At the national level the Land Transport Safety Authority is responsible for the development of safety standards/rules and licensing all aspects of the land transport industry.

The safe operation of vehicles on roads is enforced by the New Zealand Police. All vehicles in New Zealand are subject to a warrant of fitness (motor cars, motorcycles) or certificate of fitness (commercial vehicles) as certification of road worthiness. The Land Transport Safety Authority sets the standards, while the testing is undertaken by approved garages. In addition, a number of vehicle testing stations are operated by a State Owned Enterprise, Vehicle Testing NZ Ltd.

The Ministry of Transport, is responsible for the yearly development of a national land transport safety programme (the Safety Administration Programme), which is undertaken on its behalf by the Land Transport Safety Authority in conjunction with the local and regional councils and the New Zealand Police. Delivery of the road safety objectives of this programme is the responsibility of the New Zealand Police, who are accountable to the Government through the Minister of Transport.

Road design characteristics are governed by Transit New Zealand.

### **Standards**

**MARITIME.** The Maritime Safety Authority is responsible for setting standards pertaining to ship construction, operation, maintenance, safety, and for skill requirements for mariners. The Authority is also responsible for developing standards for oil pollution control.

**AIR.** The Civil Aviation Authority is responsible for developing a system of rules which govern all safety aspects of aviation e.g. design rules, operator practice, personnel licensing.

**RAIL.** New Zealand Rail Limited is responsible for ensuring that operator and system standards are maintained. Rail operators are required to meet licensing requirements as required of all other land transport operators and compliance with these standards is audited by Government appointed auditors.

**HIGHWAY.** The Land Transport Safety Authority is responsible for the development of safety standards for vehicles, road users and roads. Transit New Zealand is responsible for the development of standards for road design and construction.

### **III. Describe how your transportation system is organized between national, regional and local governments. Discuss the intergovernmental relationships by transportation mode.**

**MARITIME.** At the national level, the Maritime Safety Authority is responsible for the development of standards/rules for all aspects of the marine industry and oil pollution control. The Authority is also responsible for ship registration.

Regional Councils, local authorities and the public are the shareholders of Port companies. The mix of shareholding varies from port to port, although the majority are owned by regional councils. Central government is actively encouraging regional and local government to divest their shareholding. Port companies are commercial operations, responsible to a Board of Directors. The day to day operations of the port are the responsibility of the company.

Regional Councils are also responsible for oil pollution control and safe navigation within harbour limits.

**AIR.** At the national level the Civil Aviation Authority is responsible for promoting the safety of New Zealand aviation through developing a system of rules which govern all safety aspects of aviation e.g. design rules, operator practice, personnel licensing. The Civil Aviation Authority is also responsible for investigating all major aviation accidents to establish causal factors and make recommendations to prevent reoccurrence. The Airways Corporation is responsible for the operation and maintenance of the air traffic control and navigation system.

The Ministry of Transport is responsible for negotiating international air service agreements, advising on external aviation policy matters administering New Zealand's international air service license regime, managing central government's investments in airports both company and joint venture, operating five Crown owned airports pending devolution, and managing and providing an aviation security service. It is the Government's intention to divest itself of airport ownership and the running of the aviation security service.

Central government is a shareholder with local authorities of the companies that own the international airports. Other airports are owned as joint ventures between central and local government. The local authority is responsible for operation with capital expenditure decisions and costs subject to central government approval.

**RAIL.** Rail operations are undertaken solely by private companies. The principle operator is New Zealand Rail Limited. Both passenger and freight services are operated by this company. The majority of urban passenger rail services receive a public transport subsidy.

**HIGHWAY.** At the national level the Land Transport Safety Authority is responsible for the development of safety standards/rules and licensing all aspects of the land transport industry. The Authority also undertakes traffic research and investigation and the development of road safety strategies, practices and educational initiatives.

The road system is predominantly a central government and local government owned entity. Central government through Transit New Zealand is responsible for managing the state highway and motorway network, while local authorities are responsible for managing local roads. Transit New Zealand funds the construction and maintenance of state highways and contributes on approximately a 1:1 basis with local authorities for the construction and maintenance of local roads. Projects are assessed on a benefit-cost basis and are funded to a level of benefit-cost ratio dependent on the funds made available by the Government. Other local road funding is derived from property taxation.

Transit New Zealand is also responsible for managing Government subsidies for passenger transport operations. The level of subsidy is decided in consultation with the regional council who must first contract out those routes which can be operated on a commercial basis. Regional councils in consultation with local authorities must prepare regional land transport strategies.

IV. Identify the operations and services within your transportation modes that are performed by private or semi private organizations.

New Zealand has been moving rapidly from being a heavily regulated economy to being one of the most deregulated in the world. The primary goal of this approach has been to maximize the economic efficiency of every sector of the New Zealand economy. Within this general policy goal, transport reform has centered on seeking to remove restrictions on the introduction of improved transport services and reduce transport costs through the fundamental restructuring of the public and the private transport sectors. Economic regulation specific to the transport sector has almost gone and direct ownership of transport operations is declining.

**MARITIME.** Ocean and other water-borne shipping services are operated by private companies.

Some ports have some private ownership. All ports do however operate in a commercial manner as companies. Stevedoring operations are generally undertaken by private companies.

The New Zealand coastguard service is a voluntary organization.

**AIR.** All New Zealand airlines are privately owned, including the designated international airline, Air New Zealand Limited.

At New Zealand airports, aircraft servicing and handling (e.g. fuelling, cleaning, maintenance) and traffic servicing (e.g. passenger check-in, baggage and cargo handling) may be performed by the airport, a private contractor, or the airline. Most of the commercial activities at airports (e.g. car parking, duty free shops) are operated by private companies, often as tenants or agents for the airport.

**RAIL.** New Zealand Rail Limited own, operate and maintain their own systems. There are up to 50 other rail operators, mostly enthusiast groups operating under a variety of structures. A small number of commercial private rail operators exist, largely as an offshoot of industrial activities.

**HIGHWAY.** Most of the construction and maintenance of the state highway, motorway, and a local road network is undertaken by contract with the private sector. All major roading work must be put out to competitive tender, as must all work on state highways.

In addition to the public road system, there is also privately owned roads which are developed, maintained and operated by the private sector. This is primarily undertaken in the extensive areas of production forestry.

All commercial transport such as the trucking industry and the rail industry are deregulated. Entry to these industries is controlled only by the necessity for applicants to obtain a transport operator license and meet safety standards.

All inter-city bus operations are owned and operated by private companies. In addition, all urban public passenger services must be tendered for and local authorities who own public transport operations must separate those activities out and set them up as a local business enterprise. This process has seen private companies operating a significant proportion of urban passenger transport routes.

V. Place an appropriate check by each part of your transportation industry to describe its most common form of ownership or administration.

	<u>National</u>	<u>Regional</u> <u>Local</u>	<u>Private</u>	<u>Semi*</u> <u>Public</u>
1 Port authorities				X
2 Port operations			X	X
3 Ocean carriers			X	
4 Inland water carriers			X	
5 Airlines			X	
6 Airport authorities		X		X
7 Airport operations		X	X	X
8 Air Traffic Control				X
9 Railroad freight			X	
10 Railroad passengers			X	
11 Railroad commuter			X	
12 Highway construction	X	X		
13 Highway maintenance	X	X		
14 Other (specify)				

\* Refers to a designated authority of the Central Government or a regional or local authority that operates as a business on commercial criteria.

VI. Provide an overview of new policy directions, major programs and projects, and new products that will make your transportation system more efficient.

**Policy Directions**

The short term vision for the New Zealand transport sector, both commercial and private, is that by 1996:

- There will be no quantitative restrictions for entry to any part of the transport sector. Both the commercial sector and private individuals will be free to innovate and adapt to rapid economic, social and technological changes across all modes.
- All parts of the transport sector should pay the full costs of all their activities, so that competition within and between modes is based on technical and operational advantage, and not cost distortions.

- Safety of the transport sector should be a joint responsibility between operators and the Government. The Government will set out and review standards and audit and monitor the transport sector. Operators will have primary responsibility for achieving safety through adoption of quality management systems.

- The transport sector should be sensitive to all environmental issues and these will be incorporated in both cost structures and planning activities as appropriate;

- Central and local government activities in relation to transport should be confined to policy, planning, investigation, regulation, monitoring and audit and should minimize bureaucracy;

- Wherever practical and cost effective, New Zealand will adopt international standards and procedures to ensure that operating costs and administrative barriers are minimized;

- Central and local government should not generally own transport operations or infrastructure. If such operations are retained, they should be in a corporatised form;

- Where broader social policies are implemented through transport policy, any such assistance should generally be provided direct to designated users of systems rather than to system operators;

- Policy development should be a process involving ongoing discussion and dialogue between Government and the transport community.

## FINANCING

VII. Identify the methods (e.g. user fees, license fees, tolls, taxes) mechanisms, and institutions (e.g. national government, multilateral organizations) that provide funding for transport infrastructure projects.

Infrastructure development in the maritime, air and rail modes are all funded on a commercial basis with no government assistance.

With highways, the Government through Transit New Zealand funds the construction and maintenance of State Highways and contributes on approximately a 1:1 basis with local authorities for the construction and maintenance of local roads. Projects are assessed on a benefit-cost basis and are funded to a level of benefit-cost ratio dependent on the funds made available by the Government. This fund is known as the Land Transport Fund, which is made up of monies collected from fuel excise tax, road user charges, and motor vehicle registration charges. Local authority funding for local roads is derived principally from property taxation.

VIII. What opportunities exist for foreign investment in your transportation infrastructure and services?

In maritime, air, rail, operations and infrastructure and in road operations there are no restrictions on foreign investment, other than controls laid down by the Overseas Investment Commission. Overseas investment in New Zealand businesses above 24.9% requires the consent of the Overseas Investment Commission. The Government however has removed statutory restrictions on investment in domestic airlines leaving the way clear for 100% foreign ownership. Foreign ownership in New Zealand designated international airlines is limited to 35%, investment in road infrastructure is still largely restricted to government agencies. However, the government is actively investigating a new regulatory regime to allow for private (including non New Zealand) investment in road infrastructure.

# PHILIPPINES



## PHILIPPINES

### ADMINISTRATION

- I. List the national and regional government authorities that administer and regulate your transportation industry with a contact office, address, and phone number.

See Attachments 1 and 2

- II. Describe how the major transportation modes (i.e. aviation, rail, highway, maritime) are regulated by your national authorities. Discuss the general framework of regulation in the following areas:

#### **Infrastructure Development**

**GENERAL.** The Department of Transportation and Communications (DOTC) and Department of Public Works and Highways (DPWH) are the national infrastructure agencies primarily tasked with policy formulation, plan and program development, and regulation of the country's transportation system. The DPWH is mainly responsible for national road development, while the DOTC oversees the other transportation modes.

**AIR.** The National government regulates the civil aviation industry in areas of airspace allocation, safety, operations, maintenance, and standards.

The Air Transportation Office (ATO) under the DOTC is responsible for the design, development, construction, operating, and maintenance of air traffic control and navigational facilities. It exercises direct supervision over most of the national airports, including the regulation of private airports.

The DOTC Central Office and ATO are involved in the planning and development of public airports, except the two premier international airports in Manila and Mactan, Cebu. All public airport investments are undertaken by the national government.

**RAIL.** The railway systems in the Philippines, largely located in the main island of Luzon, are national government-owned and operated. A limited number of private lines, predominately transporting sugar and minerals on short hauls, are found in some parts of the country.

**HIGHWAY.** The DPWH provides the funds for the construction and maintenance of national roads and farm-to-market or feeder road system. Following the general fund programming approach, road investments require congressional appropriations.

Other government agencies, notable the Department of Interior and Local Government (DILG) and Department of Tourism (DOT) fund major road projects as part of larger area development programs. Actual construction and road maintenance activities are handled by local government units.

**MARITIME.** The national government regulates the maritime sub-sector in areas of navigation, safety, port operation and security, shipping services, vessel registration, and environmental concerns. The Philippine Ports Authority (PPA) is the agency responsible for the development, maintenance, and administration of the national port system, as well as the supervision of all private ports. Under its new mandate, the DOTC plans and develops the local ports which are later transferred to local authorities for operation maintenance.

The Maritime Industry Authority (MARINA) regulates the domestic and overseas shipping services. The Philippine mainly responsible for the safety and security at seas and waterways, and for the operation and maintenance of maritime aids to navigation.

#### **System Operation and Maintenance**

**AIR.** The ATO operates and maintains the 85 national airports in key urban centers of the country, which handled close to 5 million tons of cargoes on domestic routes in 1991. The regular international airports of Manila and Mactan are operated and maintained by the Manila International airport Authority (MIAA) and the Mactan-Cebu international airport Authority (MCIAA) respectively.

Economic regulations of air transport services are administered by the Civil Aeronautics Board (CAB) pursuant to the Civil Aeronautics Act of 1952, as amended. The CAB directly handles bilateral air traffic rights negotiations for the Philippines.

**RAIL.** The Philippine National Railways (PNR) owns and operates the 1,000-kilometer railway lines in Luzon. A Light Rail Transit (LRT) system, traversing Metro Manila on a 15-kilometer, north-south line, is owned, operated, and maintained by the Light Rail Transit Authority (LRTA).

**HIGHWAY.** The DPWH is primarily responsible for the repair and maintenance of the national road system, while local authorities take care of the maintenance of provincial, city and municipal roads. Road safety devices as well as traffic control facilities are maintained by the district offices of the DPWH and the Traffic Engineering Center (TEC), for interurban and urban roads, respectively.

The only toll road franchise-holder, the government-controlled Philippine National Construction Corporation (PNCC), administers the operation and maintenance of the North and South Luzon Tollways, which link Metro Manila with adjoining regions. The supervision and regulation of toll road facilities are under the jurisdiction of the Toll Regulatory Board (TRB), which has recently been attached to the DPWH.

The regulation of road vehicles are vested in a number of national agencies, namely: Land Transportation Office (LTO) under the DOTC for registration of motor vehicles and driver licensing; Land Transportation Franchising and Regulatory board (LTFRB) of DOTC for the economic regulation of public land transportation services; and the Philippine National Police (PNP) under the DILG for the enforcement of traffic rules and regulations. The DPWH still exercises the regulation of vehicle loads and maintains weighbridges located along major trunk roads.

**MARITIME.** The PPA operates and maintains the national port system, where the bulk of the country's commerce development, operation and maintenance of private ports. Within its port districts, the port services, including but not limited to vessel traffic movement, loading or discharging of vessels, warehousing, and cargo handling. Municipal ports, including a number of riverine ports, are operated and maintained by local authorities.

Repairs and maintenance of maritime navigational aids are funded by the DOTC, but actual operation and maintenance works are performed by the PCG. Dredging of municipal ports and inland waterways are the responsibility of DPWH, while PPA operates its won dredgers for its ports.

### **Environmental Protection**

**GENERAL.** The Department of Environment and Natural Resources (DENR) is mandated to ensure the sustainable use, development, management and protection of the country's environment and natural resources. Its Environmental Management Bureau (EMB) is principally tasked with the enforcement of the National Environmental policy Decree of 1977 and the Environmental impact Statement (EIS) System Decree of 1978. The EMB formulates environmental quality standards for water, air, land, noise, and radiations. It prescribes rules and regulations for environmental impact assessment and issues environmental clearance certificate for critical projects (e.g. major dams, roads and bridges, and power plants) and projects in environmentally critical areas (e.g. watersheds, protected foreshore areas, and forests) as requisite to project implementation. The EMB requires the submission of an EIS, a project document which details the potential adverse impacts of critical projects or projects in critical areas, and concomitant preventive or mitigating measures.

**AIR.** With the enforcement of regulations on noise under EMB, civil aviation authorities, notable the ATO, simply ensures compliance by way of the design and location of airports, and the control of aircraft operations.

**HIGHWAY.** The EMB in cooperation with law enforcement agencies undertake road testing of vehicle exhaust emissions. To complement field enforcement, the newly established Motor Vehicle Inspection Stations of the LTO include exhaust emission tests as part of the annual inspection of vehicles prior to registration.

**MARITIME.** The PCG enforces the rules and regulations on the prevention of pollution on all waterways and harbors in coordination with the PPA on major ports. In general, the existing laws on environmental protection and control are applied as far as the movement of hazardous materials and oil pollution are concerned. The country abides by the Maritime Pollution Convention (MARPOL), with PCG as the enforcement arm of the government.

### **Safety and Security**

**GENERAL.** The national government by constitutional mandate is committed to the development and maintenance of viable, efficient, dependable and safe transportation systems as effective instruments for economic growth. The DOTC and DPWH, together with key transportation agencies, are put to task in ensuring the safe passage of people and goods through the transportation networks. The PNP is the primary agency responsible to maintain peace and order in the country, including transportation and traffic law enforcement.

**AIR.** The ATO is directly responsible for civil aviation safety. It performs the functions of promulgating and administering rules and regulations on pilot and crew qualification, and the safe operation of aircrafts; ensuring the normal operation and maintenance of all air navigation systems and facilities; and providing air traffic services, including search and rescue operations during accidents. The aviation safety rules and regulations are patterned after ICAO standards and recommended practices.

Airport security arrangements are basically administered by the airport management, with security personnel drawn mainly from the PNP Airport Command.

**RAIL.** Railway authorities, notable the PNR and LRTA, provide the necessary procedures, manpower, and facilities to ensure the safety of passengers and security of freight shipments. When and where the safety of lives and properties are at stake, train operations are curtailed and safety inspections are undertaken.

**HIGHWAY.** With the multitude of agencies involved in road safety, the Philippine Government in 1991 created a national Interagency Road Safety Committee (IRSC) to develop standards, regulations, and safety programs for the country. The IRSC, cochaired by the DPWH and DOTC, focuses its attention on vehicle design standards and operating practices, road safety facilities, accident reporting and database systems, traffic law enforcement, and safety education. With limited safety research facilities, standards and regulations are set on the basis of international experience.

**MARITIME.** Although the primary responsibility for maritime safety and security has been transferred from the PCG to MARINA, the PCG still continues to perform the functions of vessel inspection and certification for seaworthiness; the issuance of vessel departure clearances at ports; the operation and maintenance of navigational aids, such as lighthouses, beacons and buoys; and the undertaking of search and rescue operations in case of maritime accidents. Safety standards and regulations are jointly set by the PCG and MARINA.

#### **Standards**

**AIR.** The ATO issues standards relative to aircraft airworthiness, airmen qualification, airport design and construction, air navigation systems, air traffic control, and other airport auxiliary services

**RAIL.** The PNR sets standards for heavy rail systems, while the standards for light rail systems are formulated by the LRTA.

**HIGHWAY.** Standards for motor vehicle design, covering functional parts, safety facilities, and accessories are formulated by the Interagency Technical Committee No. 44 (Vehicles) led by the Department of Trade and Industry (DTI). Enforcement of vehicle standards is directly handled by the LTO as part of its vehicle registration system.

For roads and roadside facilities, standards of design, construction, operation and maintenance is the responsibility of the DPWH.

**MARITIME.** The PCG develops standards on vessel safety and maritime pollution programs. Service standards and seamen qualifications are prescribed by the MARINA.

Standards for port development are drawn by the PPA and DOTC Central Office for national and local ports respectively.

III. Describe how your transportation system is organized between national, regional, an local governments. Discuss the intergovernmental relationships by transportation mode.

**GENERAL.** The National Economic and Development Authority (NEDA), the central planning agency of the government, provides the coordinative mechanism in integrating the regional and local plans and programs with the national development plan. The successor Philippine Development Plan, 1993-1998, which is now under preparation, shall provide the national development policies, strategies, and priorities under which regional and local plans shall be based. In the new draft Plan, the role of national transportation agencies is confined to the development and maintenance of national networks, and when called upon by the President or allowed by the Philippine Congress, they are to provide financial, technical or any other form of assistance to local authorities. The draft Plan

recognizes the local autonomy granted to local government units (LGU's) pursuant to the Local Government Code of 1991.

Under this Code, LGUs (i.e., provincial, city, municipality) are granted more powers, responsibilities and resources by the national government in the delivery of basic services and provision of facilities. LGUs are made responsible for locals roads and bridges, traffic signals, public transportation terminals, and ports, including those funded by the national government. Moreover, LGUs are now empowered to generate their own incomes through taxes, fees and other charges. They are to receive additional shares from the proceeds of national taxes to fund their operation and development projects.

**AIR.** The country's civil aviation system remains the direct responsibility of the national government. Broad based consultation on airport projects is effected through various national-local government-private sector assemblies such as: the Regional Development Councils, local development councils, and local economic councils with traders and businessmen.

**RAIL.** Existing public railway systems are under the jurisdiction of the national government through its corporations. Local authorities are represented in their governing boards.

With the Local Government Code, more progressive cities and provinces are expected to undertake their own rail system development. Under project preparation, for example, is the rail-based mass transit system to serve Metro Cebu. On another front, local officials in Mindanao have been promoting the establishment of a Mindanao Railway System with minimal or no subsidy from the national government.

**HIGHWAY.** The national road system is under the control of the DPWH. For some time, the DPWH has been directly involved in the construction and maintenance of feeder of farm-to-market roads, more commonly known as "Barangay" roads. Under the Local Government Code, these functions and the corresponding annual budget shall be transferred to LGUs. The DPWH, upon request of local officials, may include in its annual infrastructure investment program such amounts to fund local road projects. Full participation of LGUs in the planning and implementation of national road projects is mandated under the said Code to ensure that the national roads are constructed and maintained in a spatially contiguous manner and coordinated with local road programs.

Regulatory powers of the LTFRB in the operation of tricycles have been devolved to local authorities under the Code. In line with the general policy on decentralization, the DOTC is likewise firming up plans to delegate further the franchising powers of LTFRB to LGUs in the operation of local public transportation within their territorial boundaries.

**MARITIME.** While the PPA, by its charter, is mandated to be the central port planning and development agency of the government, it presently confines its operation in major national ports. Local port development has recently been added as a function of the DOTC, with port operation and maintenance handled by LGUs. Cargo handling operations in port areas are performed by private groups except in some ports where PPA directly provides such services in competition with the private sector.

**IV. Identify the operations and services within your transportation modes that are performed by private or semiprivate organizations.**

**GENERAL.** The operation of public transportation services in the Philippines is highly regulated. This regulatory regime, which are legacies of the past, are based on two governing laws, namely: The Public Services Act of 1936, as amended, covering land and maritime transportation; and the Civil Aeronautics Act of 1952, as amended. The government is presently pursuing policy reforms advocating the deregulation of transportation services and greater private sector participation. However, within the context of existing laws and regulations, the government is constrained to simply offer more liberal interpretation of these laws in the grant of franchise, and to streamline the bureaucratic processes in order to promote competition and efficiency. Bolder actions to institutionalize these reforms require legislation, which the new leadership has committed to pursue.

**AIR.** Most aircraft and traffic servicing are handled by airlines, particularly the Philippine Airlines (PAL), and general aviation operators. In the international airports, commercial activities at the terminals and within the airport complex are operated by private concessionaires. The government-owned and operated Duty Free shops will soon be privatized.

**RAIL.** The potential for commercial development of rail stations has only recently been given much attention by the government. The lease-develop-operate arrangement for the PNR Tutuban Terminal compound calls for the construction of multi-million peso commercial and residential buildings within the property. This successful venture on real estate property development by PNR will assure it of steady income upon the operation of commercial activities. On the other hand, station commercial operations, including advertisements, for the Manila LRT Line No. 1 are handled by private groups. Non-fare box income represents a meager 3% of revenues from fares.

**HIGHWAY.** Urban and interurban land transportation services are largely provided by the private sector. Exceptions are the soon-to-be privatized Metro Manila Transit Corporation and the Pantranco North Bus Company.

Most public land transportation terminals and stations are built and operated by individual operators, except in some cities where common terminals are purposely constructed as municipal enterprises.

**MARITIME.** The privatization of port administration is being studied by the government after succeeding in encouraging private firms to take over the development, operation, and maintenance of the Manila International Container Terminal (MICT). Cargo handling operations and other port traffic services are mainly handled by the private sector. Open competition in the provision of port services is being promoted in major ports with the PPA gradually phasing out its own parallel operations.

V. Place an appropriate mark by each part of your transportation industry to describe its most common form of ownership or administration.

	<u>National</u>	<u>Regional / Local</u>	<u>Private</u>	<u>Semi public</u>
1. Port authorities				X
2. Port operations		X	X	X
3. Ocean carriers			X	
4. Inland waterway carriers			X	
5. Airlines				X
6. Airport authorities	X			X
7. Airport operations	X		X	X
8. Air traffic control	X			
9. Railroad freight			X	X
10. Railroad passenger				X
11. Railroad commuter				X
12. Highway construction	X			X
13. Highway maintenance	X	X	X	
14. Other				

VI. Provide an overview of new policy directions, major programs and projects, and new products that will make your transportation system more efficient.

**POLICIES.** The new national leadership is advocating five guiding principles to support the country's economic development objectives. These are: devolution, decentralization, democratization, deregulation, and privatization. The first three concern more the government bureaucracy and intergovernmental relations, while the last two are seen to contribute to efficiency enhancing measures and greater private sector participation in state affairs.

The national government is serious in putting in place a competitive environment for the transportation sector to improve efficiency thereby reducing costs, to enhance safety and quality of services, and to minimize the environmental impact of providing infrastructure and services. The extensive regulation of transportation providers is being incrementally replaced by a more market-oriented system. The DOTC Order in March 1992 defines the revised regulatory framework covering



transportation services. In general, this Order instructed regulatory bodies under the DOTC to facilitate entry, liberalize tariffs, and reduce subsidies. More specifically, the economic regulation of transportation services shall be based on the following principles: minimum of two franchise holders shall be allowed in any route; measured capacities and other market tests of demand shall be used as guide in route allocation; freight rates shall be freed gradually from government controls; passenger fares shall be deregulated, except the lowest class of service; and unserved routes shall be bidded out to service providers. Cognizant of the conflict between the existing laws and the deregulation initiatives, the DOTC drafted a bill amending the objectionable portions of these laws. This draft legislation has been certified as a priority administrative measure to the Philippine Congress.

High in the agenda for government action is the privatization of national government involvement in the transportation industry. More specifically, the DOTC has approved in principle the privatization of its attached corporations such as MMTC, LRTA, PNR, among others. On the other hand, the DPWH has institutionalized contract road maintenance. Both the departments have lined up a list of infrastructure projects for implementation under the build-operate-transfer and build-transfer schemes.

#### **Development Programs**

**GENERAL.** With the limited resources of the government for its operation and infrastructure development, the national government will pursue selective improvement, modernization, and expansion of the transportation system in support of agro-industrial and tourism development programs. Economic viability and regional development impact are the main criteria in the prioritization of projects for funding and implementation. Where feasible, private sector financing will be pursued for toll roads, airport facilities, ports, and urban rail systems.

**AIR.** The improvement and expansion of facilities of national airports will be undertaken to meet operational and safety requirements. Major expansion of airports will cover principally the international airports of Manila, Mactan, and Davao. The modernization of air navigational facilities, radar and communication systems will be continued to provide safety net to aviation traffic.

**RAIL.** The rehabilitation of existing lines will be priority projects for the next six years. The expansion of the Manila LRT System will be vigorously pursued using concessional loan facilities and private sector investment.

**HIGHWAY.** The DPWH Road Development Program is geared towards the improvement and modernization of the trunk road network. Gaps in inter-urban systems will be constructed. Toll roads connecting Metro Manila and nearby provinces will be implemented.

**MARITIME.** Port improvements will be continued in priority national and provincial ports to expand capacities and to improve port efficiencies. The bulk of the investment program involves the rehabilitation and improvement of the maritime aids to navigation, modernization of maritime communication, and procurement of search and rescue vessels.

## FINANCING

### VII. Identify the methods (e.g., user fees, license fees, tolls, taxes), mechanisms, and institutions (e.g., National government, multilateral organizations) that provide funding for transportation infrastructure projects.

The traditional methods of public sector financing for transportation projects are through general and specific taxes, user fees and charges, loans, credits, and other forms of indebtedness, property development incomes, and grants. User fees can take the form of tolls, facility or equipment leases, port charges, vehicle registration, etc.

For capital-intensive projects, foreign currency cost are normally financed through government borrowings from bilateral sources (e.g., OECF, KFW), multilateral lending institutions (e.g., ADB, World Bank), and foreign commercial banks. Supplier credits are sometimes secured by the national government for equipment procurement projects. Local counterpart funding are mobilized from government revenues, bank loans, and bond and securities financing.

Under the Build-Operate-Transfer (BOT) Law, private sector financing for infrastructure projects of the government is being promoted. Investors are assured of reasonable return on their investments over the agreed concession period.

### VIII. What opportunities exist for foreign investment in your transportation infrastructure and services?

As part of the ongoing negotiations on the General Agreement on Trade in Services, the Philippines included transportation services among those sectors being offered for liberalization. Specific transportation activities covered in the revised conditional offer on initial commitments include: leasing /rental of transportation equipment, maritime transportation (domestic and overseas), and road transportation. The major limitation and conditions on market access are as follows: foreign investors. In particular, the following policies and measures are viewed as crucial factors in attracting foreign investments:

- Foreign Investment Act of 1991, providing a wide range of incentives to foreign entities investing in local industries and services.
- BOT Law of 1991, providing for the terms and conditions for private sector participation in public infrastructure development.

- Local Government Code of 1991, devolving to local authorities the powers responsibilities on basic services and facilities, allowing revenue-raising powers, and contracting loads or issuing bonds and other long-term security to finance projects.
- Liberalization of Foreign Exchange Regulations, eliminating the Central Bank restrictions on foreign exchange transactions, including the repatriation of incomes of foreign companies.
- Privatization Decree of 1987, transferrin all outstanding liabilities of all corporations to privatized to the national government.

**SINGAPORE**

# SINGAPORE

## ADMINISTRATION

- I. List the national and regional (state) government authorities that administer and regulate your transportation industry with a contact office, address, and phone number.

See Attachment I.

- II. Describe how the major transportation modes (i.e., maritime aviation, rail, highway) are regulated by your national authorities. Discuss the general framework or regulation in the following areas:

### **Infrastructure Development**

**MARITIME.** PSA : The Port of Singapore Authority (PSA) is a statutory board, established in 1964 under the Port of Singapore Authority Act. PSA is responsible for all infra-structural developments in connection with the smooth and proper running of the port. It also issues licenses for the operation of pleasure craft and develops the standards for recreational boating safety.

**AIR.** CAAS : The Civil Aviation Authority of Singapore (CABS) is a Statutory Board established in 1984 under the Civil Aviation Authority Act. CAAS is responsible for the operation and development of air traffic control and ensuring safety in the aviation industry of Singapore. CAAS is also the owner and manager of Singapore Changi Airport, being responsible for its maintenance and development.

**RAIL.** MRTC : The Mass Rapid Transit Corporation (MRTC) is a body established by the Mass Rapid Transit Corporation Act (MRTC Act) in 1983. It is responsible for the construction of the mass rapid transit (MRT) system in Singapore and is the owner of the 67 km.system currently in operation.

**HIGHWAY.** ROV : The Registry of Vehicles (ROV) a department under the Ministry of Communications, is responsible for licensing and registrations of all private and public transport. The department is also responsible for the planning and regulation of the Public Transport Service. The building of bus interchanges and terminal for bus operations is undertaken by the Ministry of Communications while the provision of bus shelters and bus bays, taxi stands and taxi stops for the convenience and safety of the passenger is undertaken by the Public Works Department which is under the Ministry of National Development as part of infrastructures for public convenience.

## **System Operations and Maintenance**

**MARITIME.** The main functions of the Marine Department are registration of ships, surveys and manning of ships and examination of seafaring officers. The department administers the Merchant Shipping Act and various regulations made under the Act. The legislation mainly pertains to safety of shipping. The PSA is responsible for providing and maintaining efficient and adequate port facilities and service; regulation and control of navigation in the port waters; and promoting the use and development of the port. PSA also provides pilotage, tug services, hydrographic services (to dredge to the required depth in the harbour and to maintain all navigation aids), supply of fresh water, slop reception, gas-free inspection, garbage collection and disposal.

**AIR.** CAAS : The Civil Aviation Authority of Singapore (CAAS) is a Statutory Board established in 1984 under the Civil Aviation Authority Act. CAAS is responsible for the operation and development of air traffic control and ensuring safety in the aviation industry of Singapore. CAAS is also the owner and manager of Singapore Changi Airport, being responsible for its maintenance and development.

**RAIL.** MRTC has licensed the operation and maintenance of the MRT system to Singapore MRT Ltd (SMRT). In granting the license to operate the MRT system, the MRTC is empowered under the MRTC Act to impose conditions relating to the level of services, safety, maintenance and operation of the MRT system.

**HIGHWAY.** General maintenance of bus interchanges and terminals are undertaken by the user, i.e. the bus operators. The maintenance of the bus shelters and bus bays, however, are carried out by the Public Works Department.

## **Environmental protection**

**MARITIME.** Singapore is a party to the 1973/1978 MARPOL Convention which is given effect to by the Prevention of Pollution of the Sea Act 1990.

**AIR.** The CAAS regulates aircraft noise standards on aircraft operating into Singapore. The Air Navigation Orders prohibits the operations of stage 2 aircraft into Singapore.

**RAIL.** The MRTC had incorporated a number of energy saving measures when designing the MRT system. These measures include platform screen doors for underground stations to save air conditioning load, thyristor controlled propulsion for trains which allows regenerative braking, special control arrangement for escalators which reduces applied voltage at low loads. The result of an analysis comparing the Singapore MRT system with a system which did not use these energy saving measures indicates that total power consumption has been reduced by 34% due to their adoption. MRTC had also taken note of feedback on the level of noise generated by the MRT

and had taken steps to alleviate discomfort caused by noise from moving trains. Noise abatement measures are likely to be adopted in the future design of trains and infrastructure.

**HIGHWAY.** The Ministry of the Environment (ENV) is responsible for environmental health and pollution control. In this regard, the Registry of Vehicles (ROV) assists the Ministry of the Environment in vehicular pollution control. Together with the Ministry of the Environment, the Registry of Vehicles sets and enforces exhaust emission standards for both petrol and diesel-driven vehicles.

### **Safety and Security**

**MARITIME.** The Marine Department conducts surveys of ships to ensure that safety standards are met. The PSA also provides round-the-clock security and fire-fighting services in the port operation areas.

**AIR.** CAAS act as the regulatory Authority overseeing the safety of Singapore civil aviation. The Authority fulfills this responsibility by setting and constantly reviewing national airworthiness and flight operations standards. Certification and registration of aircraft, monitoring of aircraft operations, monitoring of aviation companies' activities through initial approval and subsequent surveillance and examination and licensing of maintenance of flight operations personnel.

**RAIL.** MRTC is responsible for the safety aspects of design, construction and commissioning of the MRT system's equipment and facilities. MRTC is also responsible for the administration of the MRT Act and all enforcement actions under the said Act. SMRT, as the licensed operator of the MRT system, is responsible for operating and maintaining the MRT system safely and to carry out safety inspections and tests.

**HIGHWAY.** The ROV adopts a 3-pronged approach to ensure that vehicles comply with our rules and regulations upon registration and are safe for use on public roads. The approaches are:

- **Type Approval Inspection**

- All new models of vehicles imported into Singapore must pass a type approval inspection at ROV before they can be registered for use on our roads. The type approval inspection ensures that these vehicles meet constructional and safety standards.

- **Periodic Inspection**

- Since 1982, all in-use vehicles are required to undergo compulsory mechanical inspection periodically. This is to ensure that vehicles on public roads are maintained properly in a roadworthy condition and that they do not pollute the environment.

- **Enforcement Inspection**

- Enforcement inspection is conducted daily by spot checking on vehicles running on the road. This will ensure that the vehicles are being maintained regularly and not only during the periodic inspection.

**Standards**

**AIR.** CAAS sets and constantly review national airworthiness and flight operations standards.

**HIGHWAY.** The Road Traffic Act (RTA) provides the requisite powers to make rules and regulations regarding the construction and use of vehicles. The main rules and regulations relating to vehicular construction and safety which all vehicles must comply with are:

- Road Traffic (Motor Vehicles, Construction and Use) Rules
- Road Traffic (Motor Vehicles, Lighting) Rules.

In addition, there are also subsidiary rules such as Road Traffic (Motor Vehicles, Test) Rules and Road Traffic (Motor Vehicles, Compulsory Inspection) Rules which prescribe the statutory requirements of a motor vehicle.

III. Describe how your transportation system is organized between national, regional, and local governments. Discuss the intergovernmental relationships by transportation mode.

**MARITIME.** Surveys of ships are conducted in accordance with standards laid down in international safety conventions and national regulations. The PSA manages six terminals, three of which are container terminals. The remaining three specialize in certain types of cargo e.g. conventional, bulk cargo.

**AIR.** CAAS is responsible for all aspects of civil aviation such as the provision of airport and related facilities, air traffic services and so on as well as the setting and enforcement of air safety standards.



**RAIL.** The MRTC system in Singapore is owned by MRTC, and operated by SMRT, a private entity.

**HIGHWAY.** The public transport in Singapore is designed to complement the use of limited resources. A private company Transit Link Pte Ltd set up by the three major public transport operators namely, Singapore Bus Services (1978) Ltd, Trans-Island Bus Services Ltd and Singapore MRT Ltd, was tasked to integrate the rail and bus services.

IV. Identify the operations and services within your transportation modes that are performed by private or semi-private organizations.

**MARITIME.** For the survey of Singapore ships, the Marine Department has authorized eight international Classification Societies, namely Lloyds Register of Ships, Det Norske Veritas, Nippon Kaiji Kyokai, American Bureau of Shipping, Bureau Veritas, Germanischer Lloyds, Registro Italiano Navale and China Classification Society to conduct the surveys and issue safety certificates. Some vessel operations e.g. lashing/unlashing of containers, prime mover driving are performed by private firms on contract with the PSA. Maintenance of port areas and crafts are also contracted to private firms.

**AIR.** Facilities and services for aircraft operations at the airport are generally provided by CAAS, the airport owner. Aircraft servicing and ground handling services are performed by private organisations.

**RAIL.** The operation and maintenance of the MRT system is the responsibility of SMRT. The MRT system fares are, however, subject to the approval of the Public Transport Council.

**HIGHWAY.** The main public transport in Singapore are the bus services and the Mass Rapid Transit (MRT). Public bus transport is operated by two major private bus companies and the MRT is operated by the Singapore Mass Rapid Transit (SMRT), also a private company.

V. Place an appropriate check by each part of your transportation industry to describe its most common form of ownership or administration.

	<u>National</u>	<u>Regional / local</u>	<u>Private</u>	<u>Semi public*</u>
1 Port authorities				x
2 Port operations				x
3 Ocean carriers		x		
4 Inland waterway carriers				
5 Airlines			x	



touch-screen computer terminals for faster processing of containers. Further automation will come with the introduction of the Container Number Recognition System which will automatically read the container numbers and match them against the computer records.

#### EDI LINKS

- Electronic Data Interchange have been established with the ports of Bremen, Le Havre, Thailand, Hong Kong and Seattle. This allows the interchange of information on vessel departures from the other ports before they call at Singapore.

PSA's major development project is the construction of the Brani Container Terminal on an off-shore island at a cost of S\$1.4 billion. It is linked to the mainland by a causeway. New operating systems, latest computer technology and container handling equipment such as double-trolley quay cranes, double-stack trailers and wider-span yard cranes are used at the terminal. Operations commenced in Dec 91 with the completion of the first berth. Brani is fully completed and it has nine berths and a stacking yard with 15,000 ground slots.

PSA is currently developing a new port to meet Singapore's demands for container handling facilities well into the 21st century. The new container terminal comprising 50 berths will be developed in 4 phases spanning over 30 years. The reclamation work for Phase 1 of the project commenced in 1993. Phase I and II will see the development of 26 berths that will be built and equipped at a cost of over \$7 billion. The first 5 berths will be operational in 1998. The new container terminal will herald in a new generation of container handling where automation technologies will be exploited to the fullest.

**AIR.** With the completion of Terminal 2, plans are being drawn to develop Terminal 3 to cope with the projected growth in air passenger traffic. It represents the final phase under the first Changi Airport Masterplan conceived in 1975. The Changi Airfreight Centre will be enlarged under a four phase expansion plan to be capable of handling 3.3 million tonnes by the year 2012.

**RAIL.** MRTC has embarked on the extension of the current system by the construction of another 16 route km and 6 stations. The present MRT system, having started operations in 1987, is one of the most advanced high-speed electric rail passenger systems in the world. The extension will essentially duplicate the existing MRT system in design. Where there have been developments, especially in the area of software for the automatic fare control system and rolling stock, these developments would be incorporated.

**HIGHWAY.** A private company has been set up by the two major bus companies and the SMRT (Rail Operator) to look into route and fare integration between buses and the train (MRT). The objective is to increase efficiency and make travelling by public transport more convenient.

## FINANCING

- VII. Identify the methods (e.g., user fees, license fees, tolls, taxes), mechanisms, and institutions (e.g., National government, multilateral organizations) that provide funding for transportation infrastructure projects.

**MARITIME.** PSA has a tariff system to collect port dues and other charges for providing a prompt and efficient service to all port users.

**AIR.** CAAS collects landing, parking and aerobridges fees; passenger service charge and rental and concession. Future airport infrastructure projects financed by CAAS are to be funded from internal reserves accumulated from user charges earned.

**RAIL.** The MRTCC is funded solely by grants from the Government.

**HIGHWAY.** Infrastructures for bus operations are provided by the Government. The operators pay a monthly rental for facilities used by them, eg. time keepers office.

- VIII. What opportunities exist for foreign investment in your transportation infrastructure and services?

**MARITIME.** Biddings for PA contracts for the development of infrastructure and the supply of mechanical equipment are open to local and foreign firms.

**AIR.** Construction of airport infrastructures such as the new Passenger Terminal 3 are open for bidding by local and foreign firms.

**RAIL.** Biddings for contracts of the Mass Rapid Transit Corporation are open to local and foreign firms under competitive tendering systems.

**Attachment I**

The Ministry of Communications  
39th Storey, PSA Building  
460 Alexandra Road  
Singapore 0511  
Republic of Singapore  
Tel : 37562988  
Fax : 3757734

Marine Department  
1, Maritime Square  
#09-66, World Trade Centre  
Singapore 0409  
Tel : 3756228  
Fax : 3756231

Registry of Vehicles  
Sin Ming Drive  
Singapore 2057  
Tel : 4505310  
Fax : 4505329

The Port of Singapore Authority  
PA Building  
460 Alexandra Road  
Singapore 0511  
Republic of Singapore  
Tel : 2747111  
Fax : 2744677

Civil Aviation Authority of Singapore (CAAS)  
Singapore Changi Airport  
PO Box 1  
Singapore 9181  
Tel : 5421122  
Fax : 5421231  
Tlx : RS21231 AVIATEL

Mass Rapid Transit Corporation  
251 North Bridge Road  
Singapore 0617  
Tel : 3390955  
Fax : 3398816

## CHINESE TAIPEI

### ADMINISTRATION

- I. List the national and regional (provincial) government authorities that administer and regulate your transportation industry with a contact office, address, and phone number.

See Attachment 1 and 2.

- II. Describe how the major transportation modes (i.e., maritime, aviation, rail, highway) are regulated by your national authorities. Discuss the general framework of regulation in the following areas:

**MARITIME.** The Executive Yuan of Chinese Taipei regulates the maritime industry in areas of navigation, safety, security, vessel certification (over 200 tons dead weight, and general environmental concerns. Individual port administration of shoreside facilities and terminals is decentralized and handled by provincial authorities. Ocean shipping services are administrated primarily by the Ministry of Transportation and Communications (MOTC), while fishery harbours are directed administrated by the Agriculture Board under the Executive Yuan. Each port authority is responsible for vessel certification and inspection (under 200 tons dead weight), as well as the construction and operation of harbor facilities including bridges and waterway channels.

**AIR.** Chinese Taipei regulates the aviation industry is regulated in areas of safety, security, certification, operations, maintenance, and environmental concerns. The Department of Aviation & Navigation is responsible for aviation policy making while the Civil Aeronautics Administration (CAA) is responsible for the design, development, construction, and operation of both international and domestic airports, and the maintenance of air control and navigation systems. The similar duties on other local airports are jointly administrated by CAA and the Ministry of Defense.

**RAIL.** The 1,062.4 kilometers rail system on the island has been constructed and is owned and run by the Taiwan Railway Administration (RA) but is regulated by the Ministry of Transportation and Communications (MOTC). A high speed railway project is being conducted by the Provisional Office of High Speed Rail. The Mass Rapid Transit System of the Taipei City is under construction by the Department of Rapid Transit System of the Taipei City Government.

**HIGHWAY.** The MOTC funds the construction and maintenance of the national freeway systems, while the Department of Communications, Taiwan Provincial Government (DOCTP), funds a large percentage of the construction and maintenance of the major provincial highway systems and bridges. The national freeway system is constructed by the Taiwan Area National Expressway Engineering Bureau while the provincial highway and the urban road systems in urban planning areas are respectively constructed by the Taiwan Highway Bureau and the Housing and Urban Development Bureau of the Provincial Government.

### **System Operations and Maintenance**

**MARITIME.** A navigatable waterway channel was dredged in the administration area of each port authority. The Fishery Administration under the Agriculture Board is responsible for all the maintenance work of the fishery harbors. Thus the Department of Aviation & Navigation of the MOTC is in charge of the promotion policy of the merchant marine.

**AIR.** The CAA takes the responsibility for the operation and maintenance of the international airports and their air traffic control systems. The CAA also works with the Ministry of Defense to operate and maintain the air traffic control systems of domestic airports.

**RAIL.** Under MOTC's authorization, the Taiwan Railway Administration (TRA) operates and maintains its rail traffic control systems. The CAA also works with the Ministry of Defense to operate and maintain the air traffic control systems of domestic airports.

**HIGHWAY.** The Department of Railways & Highways of the MOTC regulates freeway and highway motor vehicle operations which include the imposition policy for license fee, fuel tax, and toll fee.

The operation and maintenance of national freeways, provincial and country highways, and the urban planning roads are authorized to the Taiwan Area National Freeway Bureau, the Taiwan Highway Bureau and the Housing and Urban Development Bureau of the Taiwan Provincial Govt., respectively.

### **Environmental Protection**

The pertaining government authorities, rules, and assessment criteria will be described hereafter.

#### Government Authorities

Environmental Protection Administration (EPA);  
Department of Environmental Protection (DEP) of the Taiwan Provincial Government (provincial government);  
Government (provincial government);  
Bureau of Environmental Protection (BEP) (local government).

## Rules, and Evaluation Criteria

**Noise.** The pertaining rules, regulations and standards for noise are:

- Noise Control Act, 1982;
- Enforcement Rules of the Noise Control Act, 1984;
- Regulations for Civil Aircraft Noise Control, 1987;
- Noise Control Standards, 1985;
- Regulations for Inspection and Control of Motor Vehicle Noise (proposed rules);
- Civil Aircraft Noise Control Standard, 1988.

**Air Quality.** The pertaining rules, regulations and standards for air quality are:

- Air Pollution Control Act, 1982, amended;
- Enforcement Rules of the Air Pollution Control Act, 1984;
- Ambient Air Quality Standards in the Taiwan Area, 1990, amended;
- Emission Standards of Air Pollutants for Mobile Sources, 1987, amended.

**Water Quality.** The pertaining rules, regulations and standards for water quality are:

- Water Pollution Control Act, 1983, amended;
- Enforcement Rules of the Water Pollution Control Act, 1984;
- Regulations of Industrial Waste Water Management, 1987.

## **Safety and Security**

**GENERAL.** Chinese Taipei has fundamental responsibility for the security and accessibility of the transportation system for the traveling public. The MOTC fulfills this responsibility by setting policy, issuing rules and regulations, supervising inspections, and coordinating enforcement actions to ensure the compromise among safety, security, and accessibility of transportation systems.

**AIR.** The primary responsibility of the Department of Navigation and Aviation (DONA) of the MOTC is to ensure the safety of civil aviation in Taiwan Area. The DONA supervises the CAA to maintain a safer aviation environment through enforcing regulations, standards, and other guidance.

**RAIL.** The primary focus of the Department of Railways and Highways (DORH) of the MOTC is railroad safety. The DORH develops standards and regulations governing safety of railroad infrastructure, equipment, and operating practices which are followed by the TRA under the Department of Communications, Taiwan Provincial Government (DOCTP).



**HIGHWAY.** The DORH of the MOTC develops standards and regulations governing the safety of highway design, construction, vehicle inspection, and the operating practices of bus and truck conducted by the Taiwan Highway Bureau under the DOCTP.

**FREEWAY.** The DORH of the MOTC develops standards and regulations on safety of freeway design, construction and operation practices conducted by the Taiwan Area National Freeway Bureau.

**MARITIME.** THE DONA of the MOTC develops rules and regulations on safety of ports and navigation. Four local harbor bureaus subordinated to the DOTCP perform the port safety practices and ship safety inspection.

**ROAD TRAFFIC SAFETY.** The National Police Administration (NPA) of the Ministry of Interior (MOI) supervises the reporting system of nationwide road traffic accident investigation. The local traffic police of NPA conducts the routine road traffic patrol to ensure the road traffic safety.

### **Standards**

The MOTC issues all the acts and regulations regarding the transportation safety. They include:

#### **AIR**

Civil Aviation Act, 1984

Aircraft Accident Investigation Regulation, 1985.

#### **RAIL**

Railway Act, 1978.

#### **HIGHWAY**

Highway Act, 1986.

#### **FREEWAY**

Freeway Traffic Regulation, 1984.

#### **MARITIME**

Merchant Ports Act, 1987

Ship Act, 1987

Maritime Act, 1981

Shipping Business Act, 1962

#### **ROAD TRAFFIC SAFETY**

Road Traffic Management and Punishment Regulation, 1986

Road Traffic Safety Rules, 1986.

III. Describe how your transportation system is organized between national, regional, and local governments. Discuss the intergovernmental relationships by transportation mode.

**MARITIME.** Duties for improving and developing existing and new merchant harbors are conducted by the MOTC, while each port bureau is authorized to operate the harbor in its administration area. The MOTC is also responsible for all merchant marine promotional programs. Under MOTC's supervision, each port authority constructs and operates bulk terminal facilities which is also available for private renting.

**AIR.** All the airports in Chinese Taipei are owned and managed by the CAA. The development of business airports including those on remote islands is conducted by the MOTC. The MOTC also plays the leading role in planning and designing air hubs to respond to the rapidly growing amount of passengers and attract economic development at the same time.

**RAIL.** The TRA is fully authorized to develop its railway systems as well as its business services. However, any change of service charges and fares is subject to MOTC's approval.

**HIGHWAY.** The road system is owned and managed by Chinese Taipei and local government entities. A semi-public transit company was formed under Provincial Highway Administration's supervision to provide regional passenger transport services. Private sectors who want to use national freeways to provide transit and freight services must be licensed by the DORH of the MOTC. Local jurisdictions have full control over the lower classes of roads, especially city and country roads. They make use of their own funds, but often obtain partial subsidies from provincial and Chinese Taipei authorities for roadway improvement.

IV. Identify the operations and services within your transportation modes that are performed by private or semi-private organizations.

**GENERAL.** Deregulation in the transportation industry has been a trend in the developed countries for the past decade. In order to remove or reduce government-imposed constraints on the power of market economics, deregulation has been introduced to some extent into the transportation industry in Taiwan Area. The scope and extent of deregulation is expected to be expanded in the near future.

**MARITIME.** Annual vessel inspections are performed by the China Corporation Register of Shipping, a quasi-government entity. Licenses of the liner and tramp services are approved and issued by the MOTC.

Except for the loading/unloading operation in Taichung port performed by the private, all the ports affairs are operated by the provincial authorities.

**AIR.** All commercial airports are owned by Chinese Taipei. Among those 13 airports, two of them are international airports. The rest including 4 with medium-size are domestic. The loading/unloading operations and franchise services (e.g., automotive parking, duty free shops) at airports are contracted out and performed by the private. Facilities and services for aircraft operations at airports (e.g., landing, takeoff, parking, air traffic control services) are provided by the airport authority.

The airlines are owned and operated by private companies. There were only 3 airlines in Taiwan Area before 1986. After the implementation of the "open sky" policy in October of 1987, 8 airlines have been recognized as having strong competition in the market of domestic airlines service. The MOTC regulates the aviation industry in areas of safety, security, fare, entry/exit and service level concerns.

**RAIL.** Railroad transportation is operated by the Taiwan Railway Administration (TRA), Taiwan Provincial Government. Thus the rate-setting, capital investment and the development of policy concerned are based on the decision-making of Chinese Taipei authorities.

**HIGHWAY.** The revised version of Highway Law (draft) is in discussion by the Legislative Yuan now. The enactment of this law (draft) intends to promote the competition potential in the bus industry by removing the outdated protection rule which insists the principle of one bus route operated by one bus company. The city (local) bus and intercity (long-distance) bus industries are regulated by the local government and Chinese Taipei authorities respectively in areas of rate-making, entry/exit control and service level concerns. Among the 13 city bus companies, 8 are public-owned and 5 are private-owned. As to the 35 intercity bus companies, 1 is public-owned and the rest are private-owned. The motor carriers are regulated in the area of rate-setting only. However, the regulation of entry/exit control except capability restriction concerns is almost not rigorous.

For the time being, there are more than 3,500 carriers in the trucking industry. Likewise, the road system is developed owned, operated and maintained by the public sector, but numerous construction work of highway is contracted out to the private sector. The tendency for encouraging the involvement of the private sector in the construction, operation and maintenance of highway is maturing and the stipulation of the law concerned is in progress.

V. Place an appropriate check by each part of your transportation industry to describe its most common form of ownership or administration.

	<u>National</u>	<u>Regional / local</u>	<u>Private</u>	<u>Semi public</u>
1 Port authorities	O	A		
2 Port operations	O	A		
3 Ocean carriers			O & A	
4 Inland water carriers		O & A	O & A	
5 Airlines			O & A	
6 Airport authorities	O & A			
7 Airport operations	O & A			
8 Airport traffic control	O & A			
9 Railroad passengers	O			
10 Railroad commuter	O	A		
11 Highway construction	O & A	O & A		
12 Highway maintenance	O & A	O & A		

Remarks: O = Ownership  
A = Administration

VI. Provide an overview of new policy directions, major programs and projects, and new products that will make your transportation system more efficient.

- In order to make our transportation system more efficient, our policy directions are as follows:
  - To develop a competent mass transportation system.
  - To build a systematic network of expressway.
  - To promote mass transit service and limit the growth of the private vehicles.
  - To foster the private sector to participate in the construction and operation of transportation system.
  - To integrate various transportation services as a whole.
  - To enhance the application of new technology and management in transportation.

- A Six-Year Development Plan (1992-1997) for Taiwan Area has been formulated and its implementation is underway. The transportation development holds an important position in the plan. The major projects include:

- Completion of the initial route network of the Taipei City mass rapid transit system.
- Planning, design, and construction of the first-stage route network of a mass rapid transit system for the Kaosiung metropolitan area.
- Planning and design of a mass rapid transport system route network for the Taichung metropolitan area.
- Planning and design of a mass rapid transit system route network for the Tainan, Taoyuan, and Hsinchu metropolitan areas.

- **Highways**

- Improvement and widening of the Sun Yat-Sen National Freeway.
- Planning and construction of a second freeway in northern Taiwan.
- Planning and construction of a cross-island freeway network.
- Improvement of the west-coast expressway.
- Construction of 12 east-west expressways.

- **Railroads**

- Construction of the high-speed railway.
- Completion of the South Link Railroad.
- Completion of the extension of the Taipei underground railroad system eastward to the Sungshan district.
- Construction of a four-track underground railroad between Wanhua and Panchiao.
- Improvement of railways in eastern Taiwan.

- **Harbors**

- Expansion of international harbors at Keelung and Kaohsiung.
- Expansion of Anping Harbor.

- Construction of an industrial harbor at Kuanyin.
- Airports
  - Expansion of Chiang Kai-Shek International Airport.
  - Expansion of Kaohsiung International Airport.
  - Improvement of flight control facilities at Hualien Airport.

## FINANCING

### VII. Identify the methods (e.g., user fees, license fees, tolls, taxes), mechanisms, and institutions (e.g., national government, multilateral organizations) that provide funding for transportation infrastructure projects.

**GENERAL.** The principal financial resources are general taxes, user fees, governmental bonds, commercial loans, and grants. Revenues from user fees can take the forms of tolls, facility leases, equipment rentals, concessions, landing fee, port due, berthing, wharfage and dockage, etc.

**MARITIME.** The various funding methods described above are adopted to finance the construction and modernization of the terminal facilities of public ports. The basic funding sources for the construction and improvement of public ports are the Transportation Construction Fund (TCF) of Chinese Taipei derived from the revenue of port user charges.

**AIR.** Most of Chinese Taipei funding for aviation derives from the Aviation Operation and Development Fund (AODF). A revenue account supported by various aviation user fees and charges. Part of air traffic system facilities, equipment, and their operations and maintenance are also funded from AODF.

**RAIL.** Most of the rail infrastructure expansion and improvement on existing conventional railroads are financed from the general tax revenue of the provincial government and Chinese Taipei with a share rate of half to half.

With regard to the construction of the high speed railway (HSR), part of the capital investment is to be financed by Chinese Taipei, while the others are considered to open to the private investors.

**HIGHWAY.** Highways are financed primarily by a variety of revenue sources, such as tolls and gasoline fees, with small supplement from the general tax revenue. For the highway/freeway projects, private participation is considered to take the forms of BOT (Build-Operate-Transfer), BTO (Build-Transfer-Operate), etc.

**VIII. What opportunities exist for foreign investment in your transportation and services?**

**MARITIME.** The modernization of port/terminal facilities and equipment for physical distribution can be introduced directly from foreign developed countries. The intermodal transportation services (e.g. container yard service and freight forwarding service) can be opened to foreign liner services who operate the scheduled liner services to or from the ports in Taiwan Area.

**AIR.** The air traffic system equipment will be purchased from worldwide sources.

**RAIL.** The technology, rolling-stock and equipment of the high speed railway project and urban mass rapid transit projects will be introduced from overseas.

**HIGHWAY.** The modernized equipment for highway construction, operations and maintenance will be procured from worldwide sources.

## **Attachment 1**

### **Chinese Taipei Authorities Contacts**

The Chinese Taipei transportation system is developed, regulated, and maintained by numerous center government authorities are as follows:

#### **Ministry of Transportation and Communications (MOTC)**

2, Sec. 1 Chang Sa Street  
Taipei, Chinese Taipei  
Tel : (02) 3112651.

#### **Civil Aeronautics Administration (CAA)**

340, Tunhwa North Road  
Taipei 105, Chinese Taipei  
Tel : (02) 712212.

#### **Yangming Marine Transport Corporation**

4th Floor, 53, Huai Ning Street  
Taipei, Chinese Taipei  
Tel : (02) 3812911.

#### **Taiwan Area National Freeway Bureau**

70, Li Ming Village, Tai Shan Country  
Taipei Hsien, Chinese Taipei  
Tel : (02) 9096141.

#### **Central Weather Bureau**

64, Kung Yuan Road  
Taipei, Chinese Taipei  
Tel : (02) 3713181.

#### **Institute of Transportation (OIT)**

7th Floor, 150, Tun Hwa North Road  
Taipei, Chinese Taipei  
Tel : (02) 7123121.

#### **Engineering Office of Taipei Railway Underground Project**

3th Floor, 3, Pei Ping West Road  
Taipei, Chinese Taipei  
Tel : (02) 3611421.



**Taiwan Area National Expressway Engineering Bureau**

141, Sec. 2, Min Sheng East Road

Taipei, Chinese Taipei

Tel : (02) 7819097.

**Provisional Office of High Speed Rail**

3th Floor, 3, Pei Ping West Road

Taipei, Chinese Taipei

Tel : (02) 3113039.

## Attachment 2

### Provincial and Local Government Authorities Contacts

The contact offices, addresses, and phone numbers for the Provincial and Local Government Authorities are listed below:

Taiwan Railway Administration, Taiwan Provincial Government

3th Floor, 3, Pei Ping West Road

Taipei, Chinese Taipei

Tel : (02) 3815226.

Taiwan Highway Bureau, Taiwan Provincial Government

70, Sec. 1, Chung Hsiao West Road

Taipei, Chinese Taipei

Tel : (02) 3113456.

Department of Communications, Taiwan Provincial Government

6, Sheng Fu Road, Nantu Hsien

Chinese Taipei

Tel : (049) 332431.

Keelung Harbor Bureau

1, Chung Cheng Road, Keelung

Chinese Taipei

Tel : (02) 4236911.

Kaohsiung Harbor Bureau

62, Linhai II Road, Kaohsiung

Chinese Taipei

Tel : (07) 5612311.

Hualien Harbor Bureau

66, Hai An Road, Hualien

Chinese Taipei

Tel : (038) 325131.

Taichung Harbor Bureau

2, Sec. 3, Chung Chi Road, We Chi Chen

Taichung Hsien, Chinese Taipei

Tel : (04) 6562611.

Department of Transportation, Taipei Municipal Government

17th Floor, 222, Sec. 5, Chung Hsiao East Road

Taipei, Chinese Taipei

Tel : (02) 7225465.

Department of Rapid Transit System, Taipei Municipal Government

9th Floor, 9, Sec. 4, Nanking East Road

Taipei, Chinese Taipei

Tel : (02) 7815678.

Department of Reconstruction, Keelung City Government

1, Yi I Road, Keelung

Chinese Taipei

Tel : (02) 4201122.

Department of Reconstruction, Taichung City Government

99, Min Chung Road, Taichung

Chinese Taipei

Tel : (04) 2289111.

Department of Public Works, Chiayi City Government

1, Min Sheng North Road, Chiayi

Chinese Taipei

Tel : (05) 2254321.

Department of Public Works, Tainan City Government

1, Chung Cheng Road, Tainan

Chinese Taipei

Tel : (06) 2238751.

Department of Reconstruction, Kaohsiung Municipal Government

2, Szewei III Road, Kaoshiung

Chinese Taipei

Tel : (07) 3638413.

# THAILAND

**THAILAND**

**ADMINISTRATION**

- I. List the national and regional (state) government authorities that administer and regulate your transportation industry with a contact office, address and phone number.

SEE THE ATTACHMENT

- II. Describe how the major transportation modes (i.e. maritime aviation, rail, highway) are regulated by your national authorities. Discuss the general framework of regulation in the following areas.

SEE ATTACHMENT II

- III. Describe how your transportation system is organized between national, regional, and local governments. Discuss the intergovernmental relationships by transportation mode.

SEE ATTACHMENT II

- IV. Identify the operations and services within your transportation modes that are performed by private or semi-private organization.

**MARITIME.**

- Private participation: all ship operators  
: terminal operators

**State enterprises**

- PAT : port management and operation

**Government agencies**

- HD, MOPC : Legislation body  
: Port management  
: Maritime coordinator  
: Control and supervision

## AIR TRANSPORT

- Private participation : Passenger and cargo services  
: airport facilities
- State enterprise  
- AAT : International Airport management and operation,  
air traffic control at Bangkok International  
Airport
- AEROTHAI : Air traffic control
- Government agencies  
- DOA : Legislation body  
Domestic Airport management and operation,  
navigation aids, traffic control

## RAIL

- Private participation : Catering services, ticket sales, passenger wagon  
operation
- State enterprise  
- SRT : Management and operation

## HIGHWAYS

- Private participation : Investment collected tolls  
: vehicle operation
- State enterprises  
- TC, ETO : Passenger bus operation, truck operation
- Government agencies  
- DOH, LTD : Construction, maintenance, infrastructure  
services, regulatory body

V. Place an appropriate check by each part of your transportation industry to describe its most common form of ownership or administration.

	<u>National</u>	<u>Regional</u> <u>/local</u>	<u>Private</u>	<u>Semi</u> <u>public</u>
1 Port authorities	x			
2 Port operations	x	x	x	x
3 Ocean carriers	x			x

4 Inland water carriers			X
5 Airlines	X		X
6 Airport authorities	X		X
7 Airport operations	X		X
8 Air traffic control	X		
9 Railroad freight	X		
10 Railroad passengers	X		
11 Railroad commuter	X		
12 Highway construction	X	X	
13 Highway maintenance	X	X	
14 Other			

**VI. Provide an overview of new policy directions, major programs and projects, and new products that will make your transportation system more efficient.**

Seventh National Economic and Social Development Plan (1992-1996) on Environment, Decentralization of Urban and Infrastructure Development can be seen in ATTACHMENT 3.

**FINANCING**

**VII. Identify the methods (e.g., user fees, license fees, tolls, taxes), mechanism and institutions (e.g. National government, multilateral organizations) that provide funding for transportation infrastructure projects.**

The Highways Department collects tolls from specific routes. License fees are collected from departments concerned i.e. LTD, HD. Agencies which provide funding for transport infrastructure are the Ministry of Finance, Budget Bureau, National Economic and Social Development Board. Other sources of funding come from private sector in terms of joint venture and joint operation.

VIII. What opportunities exist for foreign investment in your transportation infrastructure and services.

The government policy has given an opportunity for the private investors to invest in transportation infrastructure and services in Thailand. As of now we have many foreign investment projects such as Don Muang Toll Way Project, Hopewell Project etc.

<u>Abbreviation</u>	<u>Agency Name</u>	<u>Address</u>
BB	Budget Bureau Office of the Prime Minister	Thanon Rama VI Bangkok 10400 Tel : 273-9022
BCD	Building Control Division	Bangkok Metropolitan Administration 173 Thanon Dinso Bangkok 10200 Tel : 246-0331 ext. 1533
BMA	Bangkok Metropolitan Administration	173 Thanon Dinso Bangkok 10200 Tel : 221-2141-69
BMTA	Bangkok Mass Transit Authority	Thanon Tiam Ruam Mit Huai Khwang Bangkok 10310 Tel : 246-0339 246-0741 246-0750 246-0751 246-0752
CCSD	Construction Control & Supervision Division	Bangkok Metropolitan Administration 173 Thanon Dinso Bangkok 10200 Tel : 246-0294 ext. 1511
CMD	Construction & Maintenance Division	Bangkok Metropolitan Administration 173 Thanon Dinso Bangkok 10200 Tel : 246-0296/ 246-0295 ext. 1522-4



<b>CPD</b>	<b>City Planning Division</b>	<b>Bangkok Metropolitan Administration</b> 173 Thanon Dinso Bangkok 10200 Tel : 222-8855
<b>DD</b>	<b>Design Division</b>	<b>Bangkok Metropolitan Administration</b> 173 Thanon Dinso Bangkok 10200 Tel : 246-0291 ext. 1621-4
<b>DOH</b>	<b>Department of Highways</b>	<b>Thanon Sri Ayutthaya</b> Bangkok 10400 Tel : 246-1122-30/246-0950-59 246-0027
<b>DLT</b>	<b>Department of Land Transport</b>	<b>1032 Thanon Phahon Yothin</b> Bangkok 10900 Tel : 271-0120-3/279-8530-2 279-8526-8
<b>DPP</b>	<b>Department of Policy and Planning</b>	<b>Bangkok Metropolitan Administration</b> 173 Thanon Dinso Bangkok 10200 Tel : 221-2141-69
<b>DPW</b>	<b>Department of Public Word</b>	<b>Saphan Phan Fa</b> Thanon Lan Luang Bangkok 10100 Tel : 281-1311/281-1562 281-1017 281-1182
<b>DTCP</b>	<b>Department of Town and Country Planning</b>	<b>224 Thanon Rama IX</b> Khet Huai Khwang Bangkok 10310 Tel : 245-1604-10/245-1420 245-1422/245-1425-27
<b>ETA</b>	<b>Expressway and Rapid Transit Authority of Thailand</b>	<b>Thanon Phahon Yothin</b> Lat Yao, Chatuchuk Bangkok 10900 Tel : 579-5780-9
<b>ETO</b>	<b>Express Transportation Organization of Thailand</b>	<b>485/1 Thanon Sri Ayutthaya</b> Bangkok 10400 Tel : 245-3231-9

<b>HD</b>	<b>Harbour Department</b>	Thanon Yotha Bangkok 10100 Tel. 233-1311-8
<b>MOTC</b>	<b>Ministry of Transport and Communications</b>	Thanon Ratchadamnoen Nok Bangkok 10100 Tel : 281-3422
<b>MOF</b>	<b>Ministry of Finance</b>	Thanon Rama VI Bangkok 10400 Tel : 273-9021
<b>MOI</b>	<b>Ministry of Interior</b>	Thanon Asadang Bangkok 10200 Tel : 222-1141-55
<b>MPB</b>	<b>Metropolitan Police Bureau</b>	The Royal Thai Police Department Thanon Rama 1 Bangkok 10500 Tel : 246-1321-8
<b>MSTE</b>	<b>Ministry of Science, Technology and Energy</b>	Thanon Rama VI Phaya Thai Bangkok 10400 Tel : 246-0064/246-1382-6
<b>NESDB</b>	<b>National Economic &amp; Social Development Board</b>	962 Thanon Krung Kasem Bangkok 10100 Tel : 282-3861-9/282-3881-3
<b>NSC</b>	<b>National Security Council</b>	Government House Thanon Phitsanulok Bangkok 10300 Tel : 281-2360
<b>OCMRT</b>	<b>Office of the Committee for the Management of Road Traffic</b>	Ministry of Interior Thanon Asdang Bangkok 10200 Tel : 222-4155
<b>OFFP</b>	<b>Office of Fiscal Policy</b>	Ministry of Finance Thanon Rama VI Bangkok 10400 Tel : 273-9020

<b>ONEB</b>	<b>Office of the National Environmental Board</b>	Soi Phibun Wattana 7 Thanon Rama VI Bangkok 10400 Tel : 279-7180-9
<b>OPM</b>	<b>Office of the Prime Minister</b>	Government House Thanon Nakhon Pathom Bangkok 10300 Tel : 282-9538/282-9503
<b>OPP</b>	<b>Office of Policy and Planning</b>	Ministry of Interior Thanon Asdang Bangkok 10200 Tel : 221-7668/221-7670 221-7694
<b>OPS</b>	<b>Office of Permanent Secretary</b>	Bangkok Metropolitan Administration (BMA) 173 Thanon Dinso Bangkok 10200 Tel : 221-4849
<b>PD</b>	<b>Police Department</b>	The Royal Thai Police Department Thanon Rama 1 Bangkok 10500 Tel : 250-0640-8
<b>PWD</b>	<b>Public Work Department</b>	Bangkok Metropolitan Administration 173 Thanon Dinso Bangkok 10200 Tel : 246-0266 ext. 1411
<b>RWLD</b>	<b>Right of Way and Land Division</b>	Bangkok Metropolitan Administration 173 Thanon Dinso Bangkok 10200 Tel : 221-2141-69
<b>SRT</b>	<b>State Railway of Thailand</b>	Thanon Rong Muang Pathum Wan Bangkok 10330 Tel : 223-0341

<b>TD</b>	<b>Treasury Department</b>	Ministry of Finance Thanon Chakrabongse Bangkok 10200 Tel : 281-7850/281-7784 281-7720
<b>TED</b>	<b>Traffic Engineering Division</b>	Bangkok Metropolitan Administration 173 Thanon Dinso Bangkok 10200 Tel : 221-2141-69
<b>TPD</b>	<b>Traffic Police Division</b>	The Royal Thai Police Department Thanon Rama 1 Bangkok 10500 Tel : 221-1268 221-3849
<b>TCL</b>	<b>The Transport Company Limited</b>	1034/39 Talad Mochit Thanon Phahon Yothin Bangkhen Bangkok 10900 Tel : 271-0101-5
<b>PAT</b>	<b>The Port Authority of Thailand</b>	Thanon Sunthonkosa Klong Toey Phra Khanong Bangkok 10110 Tel : 249-0362/249-0399 249-0419
<b>OMPC</b>	<b>The Office of the Maritime Promotion Commission</b>	19 Thanon Phra Athit Bangkok 10200 Tel : 281-3017 281-3015
<b>DOA</b>	<b>Department of Aviation</b>	71 Soi Ngamduplee Rama IV Road Thung Maha Mek Bangkok 10120 Tel : 286-0921-5

## Attachment II

### **Organization of the Transport Sector**

The Ministry of Transport and Communications (MOTC) is the government organization which is responsible for the entire transport sector, both facilities and services, with the exception of pipelines and roads and expressways in the Bangkok Metropolitan Area. Other exceptions are road construction and maintenance in municipal areas and feeder roads in the rural areas which are under the responsibilities of the Ministry of Interior (Accelerated Rural Development - ARD) and the Ministry of Agriculture (Royal Irrigation Department - RID). MOTC is also responsible for Postal, Telegraph and Telephone Services.

The organization of MOTC comprises seven departments and 11 state enterprises. There are two types of state enterprises; the first one is state organizations or authorities which are fully owned by the Government; the second categories are companies which are owned mainly by government but their statute allows for other shareholders. The other difference is that the establishment of the state organizations requires promulgation of the official act ratified by the parliament, while companies are registered under the Civil and Commercial Code of Thailand.

The followings are the Ministry's departments and state-owned enterprises, categorized by mode of transport:

#### **Land Transportation**

##### Administration and Regulation

Of the land transport sector, the Department of Highways (DOH), and the Department of Land Transport (LTD) are the principal agencies of the Ministry to provide the infrastructure and the regulatory frame work for public and private road transport. The Motor Vehicles Act and the Land Transport Act, of 1979 provide the legal basis together with subsequent ministerial regulations. The Land Transport Act provides two interministerial consultative bodies, the Land Transport Policy Committee and the Land Transport Control Board in order to deal with policy issues.

##### The Department of Highways

The Department of Highways is responsible for the planning and implementation of the construction, expansion and maintenance of national, as well as provincial highways, throughout the country. DOH has to ensure that highway networks link all strategic points of economic, political and military importance and to assess whether the development of new highways is economically feasible. It also enforces highway traffic laws for the utilization of the highways by motorists and for highway safety.

Design standards for the different task of highways set by DOH are oriented towards the American Association of State Highway and Transportation Official - AASHTO. It is necessary that highways should be designed to be capable of carrying the estimated traffic volumes and the consequent accumulated axle loads for all types of vehicles during the design life of the facility. In general, the roads carrying low traffic volumes are narrower in width consisting of thinner pavement depths, where as roads subjected to higher traffic volumes are wider having thicker pavement sections. However, highways must be designed given due consideration to, construction, maintenance and the road user cost saving.

### The Land Transport Department

As a departmental body of MOTC, the Land Transport Department handles, monitors and regulates the administrative and executive functions concerning the regulations of road usage and of commercial vehicles (truck, bus) operation for goods and passengers. The Land Transport Act of 1979 provides the legal basis for LTD responsibilities. The following are main duties of LTD:

- Collect road taxes and register all types of vehicles
- Promote commercial trucking business
- Regulate public transportation by bus
- Provide public transport facilities, such as bus terminals
- Regulate motor vehicle inspection centers for all types of vehicles
- Licensing authority for transport operators and personnel
- Planning authority for private and public vehicles

### State Enterprises for Land Transport

The Transport Co. Ltd. provides regional and intercity bus services. It also operates more than 100 bus terminal throughout the country. Many of its intercity coaches are airconditioned.

Express Transportation Organization was initially set up to provide transport services to government agencies both in time of peace and war. At present, it operates in the open market as road hauler and domestic and international freight forwarder, both to government agencies and the general public.

Bangkok Mass Transit Authority provide regular bus services for the population of Bangkok and its suburbs and adjoining provinces. Its fleet consists of more than 5,000 buses, 10 per cent of which are air-conditioned.

### Rail Transportation

The Rail Transportation is handled by the State Railway of Thailand (SRT), whose formulation of policies and the supervision of the general affairs are entrusted to a Board of Commission. The Cabinet approves budget borrowings, charges of tariff and the abandonment of lines and services. It also provides national rail services for passengers and cargoes. Its routes cover more than 3,951 kms. nationwide with for main routes and

numerous secondary routes serving most important cities in the country and with its southern route connecting with Malaysian railways system making it possible to travel from Bangkok to Singapore by rail. It gives importance on development of signalling system, workshop facilities, passenger transport, and freight transport.

## **Inland Waterways - Coastal Ports, International**

### Shipping and Ports

#### - Administration and Regulation

The Harbour Department (HD), as the government agency, it is charged with the administration of domestic water transport in the country, including sea and inland waterway transport and coastal ports. Its main responsibilities are regulation and control of navigation, improvements and maintenance of navigation channels as well as of port access channels (with the exception of Bangkok Port channel from the sea to the upper limit of the Port Authority of Thailand (PAT's) jurisdiction), inspection and registration of waterway transport companies and vessels, barges and lighters, testing and identifying marine personnel, providing and maintaining navigation aids in port areas (with the exception of PAT), waterway development planning and licensing of companies for sand dredging in river beds. The pilotage activities provided to all ships with more than 500 NRT in the area of Bangkok and Sri Racha are also performed through HD.

It is to be noted here that, Thailand has a well developed inland waterway system which covers about one-third of the country's area and comprises about 1,600 kms. of navigable works. Even though, the government has emphasized the need to develop inland water transport to be alternately used for economical cost of investment, its importance is steadily declined and rapidly replaced by road infrastructure.

#### - Office of the Maritime Promotion Commission

Is responsible for the development coordination of the merchant shipping industry including sea transport, marine insurance, shipbuilding and port services. It considers and appraises plans, projects and measure, in order to promote the merchant marine for deliberation by the Commission.

#### - State Enterprises for Inland Water Ways

The Maritime Navigation Co., Ltd. provides liner and other shipping services. Its activities include berthing and warehousing facilities, shipping agency and freight forwarding. It is also a member of Thailand-Japan Freight Conference.

The Port Authority of Thailand was established as an autonomous body in 1951. The PAT is responsible for managing and operating the general cargo wharves at Klong Toey, and Laem Chabang Deep Sea Port, and for the dredging and maintenance of the navigation channel in the Chao Phraya River within the authority's area, including the Bar Channel at the river mouth.

## Aviation

### Department of Aviation

The Department of Aviation (DOA) was established by the provision of the Thai Air Navigation Act, 1954. The Department is in charge of controlling and administering both domestic and international civil aviation activities, international agreements and standards, and recommended practices of the International Civil and Aviation Organization (ICAO). The principal responsibilities of DOA are to promote and develop air transport. DOA undertakes the activities for the public service and is non-profit oriented. These activities include construction, maintenance and administration of regional airports including procurement, installation and operation of air navigation aids, communication equipment as well as providing air traffic services at airports.

DOA issues permission to both Thai and foreign airlines which request to operate air services within and into Thailand. DOA is also responsible for aircraft registration, personnel licensing, air transport development and cooperation with foreign countries and international organizations.

### State Enterprises for Aviation

The Airport Authority of Thailand : The Airport Authority Thailand (AAT) operates and develop 4 international airports: Bangkok, Chiang Mai, Hat Yai, and Phuket. It is also responsible for airport services and facilities (buildings, airfield), maintenance of airports, aeronautical communications, air navigation, check-in service, and security system.

Thai Airways International Ltd. is the national flag carrier. Apart from being ranked one of the best airlines in the world, serving more than 40 destination in 4 continents. Its operations also include ground services for passengers, wide-bodied and other aircraft repair services, limousine services, technical services, airlines catering services, warehousing services, and restaurant at Bangkok International Airport.

The Aeronautical Radio of Thailand Ltd. has all airlines regularly serving Thailand as its shareholders with the Thai Government holding majority shares. It is responsible for the provision of air traffic control services, aeronautical communications and airline communications.



## CHAPTER 3

### ENVIRONMENTAL DEVELOPMENT FOR BETTER QUALITY OF LIFE

#### **Environmental development issues**

During the past years of rapid economic growth, as the economic structure has become increasingly oriented towards the modern industrial and services sectors and as the traditional rural agricultural society is steadily being transformed into urban industrial society, environmental quality has deteriorated, with increasingly serious pollution problems. Therefore, development of the environment during the Seventh Plan period will have to take account of the following issues.

#### **Water pollution**

Water quality in the major rivers, particularly the Chao Phraya and Tha-Chin rivers, along coastal areas where industrial establishments are located, and in tourist destination areas, has deteriorated below acceptable standards for consumption, industrial use, and fisheries.

Water pollution is generated from waste water from communities, services businesses, industrial plants and agricultural establishments. Industrial plants are the prime source of water pollution, taking into account growth of different types of industries, their generative capacity, efficiency of waste treatment, and supervision.

Past attempts at control and alleviation of water pollution problems have been handicapped by lack of appropriate investment in the construction of comprehensive waste treatment plans to serve large communities such as Bangkok Metropolis, regional urban centers and other new urban communities.

#### **Air and noise pollution**

Air quality and noise level from vehicles in Bangkok Metropolis and other major cities with heavy traffic are generally below acceptable standards, in areas such as volumes of dust particles, carbon monoxide, and concentration of lead levels which is on the rise in line with gasoline use and injurious to health. Furthermore, air quality and noise levels generated from selected industrial plants such as weaving factories, and petrochemical plants, etc. transportation of cargoes and energy consumption in various forms are at levels harmful to human health.

The most important source of air pollution during the Seventh Plan period are industrial plants, such as cement plants, tobacco curing factories and the use lignite for electricity generation etc.

Quality of gasoline is too low, as benzine, diesel and fuel oil presently available in the market generate excessive air pollution. There are also no adequate measures to control the quality of lignite and to restrict the level of air pollution,

coupled with a lack of investment in an efficient mass transit system. There are no controls of standard noise levels, vibration (communities, traffic, and industrial plants), and no inspection of noise levels of vehicles.

### **Pollution from solid wastes**

- Garbage collection in Bangkok Metropolis and other major cities is generally deficient, resulting in problems of uncollected trash. Furthermore, there is no classification of types of garbage, resulting in inefficient disposal. There is also a high incidence of illegal discharge of untreated water from households and other activities into the public sewerage system and water resources.
- Solid wastes causing pollution problems, which will become more serious in the future, generally involve hazardous industrial wastes. In 1991, there are about 2 million tons of hazardous industrial wastes, and this is expected to increase to 3.5 million tons, 95.5 percent of which is generated by the industrial sector, with the rest from communities and hospitals. It is estimated that 70 percent of all the hazardous chemical wastes is generated within Bangkok Metropolis and vicinity areas.
- At present, there is a lack of technically appropriate management of solid and hazardous wastes, from the stages of collection, transportation, utilization, to the stage of disposal, as well as a lack of location for waste disposal facilities. Furthermore, there is also a lack of a system, as well as technical expertise for handling disposal of hazardous chemical wastes, such as harmful industrial wastes, and infectious wastes from hospitals.

### **Pollution problems from toxic and hazardous chemicals**

- Economic and social development in the past has resulted in a great increase of hazardous chemical imports for use in agriculture and industry, particularly the use of such chemicals as pesticides and insecticides, as well as production and use of chemicals in industrial plants.
- At present, management of toxic and hazardous chemicals from the stages of import, storage, transportation, utilization, to the stage of disposal is still not systematic, nor safe for life and property.
- There is no contingency plan to deal with accidents, public disasters, or calamities as caused by toxic and hazardous chemicals, either in terms of proposed solutions, or preparation of preventive and rehabilitative plans.

### **Global warming phenomenon**

- There has been a gradual rise in temperature in the earth's atmosphere. This global warming problem has been getting more serious, and may have direct impact on agricultural productivity, as well as causing higher tides which may affect coastal towns. Factors causing global warming include large-scale forest

destruction, and increasing use of chlorofluorocarbon (CFC) in numerous types of industries.

**Administrative mechanism and environmental management systems are not conducive to efficient management of the environment.**

- Prevention and solution problems have been the primary and principal role of the government in the past, while polluters were generally not required to be responsible, or were not obliged to shoulder sufficiently the burdens of pollution problems. Financial and fiscal measures in the past have not been adequately used to stimulate or induce polluters to find effective means of reducing pollution.
- Environmental management as currently practised is under the jurisdiction of a number of public agencies, under different ministries, at the national, as well as local levels. Successful implementation of environmental programs is highly dependent on the effective coordination and supervision of programs to ensure consistency of work: At the present time, there is no such mechanism for efficient supervision and coordination of work in the environmental field.
- Development of manpower and technology for controlling and solving pollution problems is lagging behind, and has not kept pace with the extent and seriousness of the problems.
- Up till now, there has not been specific legislation which directly deals with prevention and solution of pollution problems. The closest one is the Improvement and Conservation of the National Environmental Quality Act, B.E. 2518, which is difficult to enforce. With regard to other relevant laws, they invariably have different objectives from environmental concerns. Therefore, it is hardly feasible to appropriately amend those laws for a more efficient solution of pollution problems.
- Prevention and solution of environmental problems require cooperation from all parties, especially wide participation by the population at large. But to date, there has been a lack of mechanism and process to stimulate and attract people's participation, particularly in surveillance and monitoring of environmental quality preservation efforts in line with the set standards.

**Targets of environmental development for better quality of life**

In order to upgrade environmental quality to ensure human safety and higher quality of life, hand in hand with national economic and social development, the following environmental development targets of the Seventh Plan with reference to pollution problems have been set.

- **Water pollution:** Reduce BOD (Biochemical Oxygen Demand) loadings discharged into water resources to exceed 4 milligrams per liter in the following target areas.

- The lower part of the Chao Phraya river from the estuary to kilometer 100, which is within the boundaries of Bangkok Metropolis and vicinity towns.
- The lower part of Thai-Chin river from estuary to kilometer 150, which is within the jurisdiction of Nakhon Pathom and Samut Sakhon.
- Coastal areas and tourist destinations, such as Pattaya, Chonburi and Phuket, etc.
- Canals, ditches, ponds, lakes and other water resources in regional urban centers with critical water pollution problems, such as Sakhon Nakorn, Khon Kaen, Hat-Yai, Songkhla, Chiangmai, etc.

#### **Air and noise pollution**

- Reduce air pollution level in Bangkok Metropolis and vicinity towns, as well as other regional urban centers, not to exceed the standard level, particularly pollution in form of dust particles, carbon monoxide, sulphur dioxide and lead.
- Discontinue sales of leaded premium gasoline by the end of the Seventh Plan (1992-1996).
- Reduce and control noise level, particularly as generated by motor vehicles, and construction activities to a level not harmful to human health, i.e., not to exceed 85 decibels.

#### **Solid wastes**

- Reduce rate of garbage generation in Bangkok and regional urban centers to less than 0.8 kilogram per person per day.
- Encourage collection and disposal of harmful, as well as harmless, solid wastes based on technically appropriate method.

#### **Toxic and hazardous chemicals**

- Set up an integrated system for professional management of toxic and hazardous chemicals from the stages of import, storage, transportation, utilization, to the stage of disposal, based on technically appropriate method.
- Encourage less reliance on toxic and hazardous chemicals in the industrial and agricultural sectors.

## **Guidelines for environmental development for quality of life**

In order to attain the set targets, the following operational guidelines and measures for control, prevention and solution of environmental problems during the Seventh Plan period have been formulated.

### **Water pollution**

- Reduce water pollution generated by communities, industrial, as well as agricultural activities, via the following:
  - Support relocation of pollution-generating industries within Bangkok Metropolis and vicinity towns to designated areas.
  - Enforce domestic effluent standards for all buildings based on the Building Control Act, or other existing laws, as well as enforce effluent standards from livestock farms, and aquaculture farms to ensure strict adherence to the set standard.
  - Collect water fees for agricultural and industrial activities, and levy effluent charges to encourage economical use of water and to stimulate application of appropriate technology.
  - Encourage use of clean or pollution free technology in the production process or in business operations.
  - Encourage waste recycling for productive use, and promote utilization of recycled water.
  - Control and supervise reduction of pollution level, with emphasis on pollution generating sources, and particularly in locations outside the target zones serviced by the comprehensive waste treatment system, taking into account the absorptive capacity of the environment and water resources.

**Enforce control measures and ensure that there are no additional discharges of effluent into water resources currently facing critical pollution problems, via the following:**

- Control construction and expansion of industrial plants which generate water pollution problems, as well as control location and expansion of communities in the target water resources.
- Support establishment of industrial estates, industrial zones, flats and condominiums for industrial factories by encouraging private sector investment or joint investment.

- Designate land use zones for livestock and aquaculture farms, and support business and industrial operations in the form of estates, groupings, or associations which have a system of basic facilities, such as salt water protection dam, waste water treatment system, and drainage ditches in the case of aquatic farms, etc.
- Separate the sewerage system from storm water drainage system in newly developed communities and industrial areas to increase efficiency of pollution control.

**Encourage investment and make preparations for investment in construction of waste water treatment system as following:**

- Construct comprehensive waste water treatment system for communities and industrial plants in target areas, such as Bangkok Metropolis, municipalities of vicinity towns, regional urban centers, tourist destinations, etc.
- Conduct feasibility studies for the construction of comprehensive waste water treatment system for communities and industries in other areas in order of priority.

**Air and noise pollution**

- Reduce and control air pollution as caused by traffic via the following:
  - Reduce lead content in benzine from 0.4 grams per liter to 0.15 grams per liter by January 1st 1992, and speed up distribution of unleaded gasoline nationwide by the end of 1991 in order to facilitate installation of catalytic converter in new cars by January 1st, 1992.
  - Improve quality of benzine by addition of oxygenates to reduce carbon monoxide in urban areas.
  - Set standard of air pollution which may be emitted by motor vehicles and new motorcycles from 1992, and require new gasoline-driven motor vehicles from 1992 onward to install a catalytic converters. In the event that it is not feasible to have an across-the-board enforcement for all new motor vehicles, fiscal incentives should be provided to encourage installation of catalytic converters on a voluntary basis.
- Mandatory installation may subsequently be imposed after car producers have appropriate lead time for necessary adjustments.
- Set standard permissible level of exhaust fumes emitted by vehicles, and ensure strict enforcement in annual inspection of currently used motor vehicles and motorcycles.
- Set standard of energy efficiency for new cars.

- Improve quality of high-speed diesel to reduce problems of emission of black smoke and toxic fumes by :
  - reducing level of sulphur from 1 percent to 0.5 percent by 1 September 1993, and consider possibility of further reduction of sulphur content to an appropriate level by the end of the Seventh Plan;
  - reduce oil refining temperature at the 90 percent refining point from 370 degrees celsius to 357 degrees celsius by September 1st 1992 at the latest by providing necessary incentives to stimulate oil users, traders and oil refineries to take urgent actions.
- Encourage wider use of fuels which emit lower volumes of pollution, such as liquefied petroleum gas in motor vehicles, and compressed natural gas in public buses, etc.
- Speed up provision of efficient public mass transit system, particularly the mass transit electric rail system to alleviate traffic problems, as well as to reduce pollution problems.
- Invest in solving air pollution problems to set socially constructive examples and to demonstrate government sincerity in this regard, especially investment in solving pollution problems of the public transport sector, such as the Bangkok Mass Transit Authority, the Express Transportation Organization of Thailand, and the Transport Company Limited, by improving conditions, careful maintenance of the buses, and replacing older fleets of buses with newer ones based on international standards.
- Reduce volumes of oil transport by trucks from Chong Nontsee oil depot and reduce the size of Chong Nontsee oil depot in order to relieve traffic congestion and environmental conditions of Bangkok Metropolis.
- Strictly enforce measures for controlling falling of debris, and other objects on road surface, and strictly enforce laws for controlling the operations of earth and other types of overweight trucks.
- Encourage regular monitoring of air quality and strictly enforce all the legal measures to maintain the set standard.
- Reduce and control air pollution caused by industrial plants, via the following:
  - Set standard, as well as enforce control measures for the maximum allowable level of toxic chemicals, particularly sulphur dioxide and dust particles, to be emitted from chimneys, or as generated by industrial plants, or groups of plants (such as in industrial estates) and electricity generators, while taking due account of the local conditions and development stages.

- Encourage sales of fuel oil with low sulphur content, and control quality of lignite to enable industrial plants and electricity generators which have no sulphur dioxide treatment system to use lignite without exceeding standard limits for the emission of toxic chemicals. Fiscal incentives and pricing measures may be used to ensure effective implementation.
- Set standards of energy efficiency, and emission of toxic chemicals of boilers in new industrial plants.
- Require newly established lignite-fired electricity plants of the Electricity Generating Authority of Thailand to install a sulphur dioxide treatment unit.
- Reduce the impact from lignite mining and quarrying activities.
- Encourage air pollution generating industries to be relocated to industrial estates or other designated zones.
- Conduct feasibility studies on the use of pollution free energy, such as import of natural gas, and international cooperation in hydro power development for electricity generation, etc.
- Set standards of air quality in industrial zones and other related areas, and encourage regular monitoring of air quality.

#### **Reduce and control noise pollution**

- Set standards of noise level for domestically produced and assembled motor vehicles and motorcycles, as well as ensure strict compliance with the regulations.
- Formulate measures for prevention of noise and vibration in industrial and business establishments and in the transport sector, particularly from airports and construction as well as renovation activities.

#### **Pollution from solid wastes**

- Support application of technology which helps reduce volumes of solid wastes, as well as encourage recycling of solid wastes, such as garbage, night soil, and discarded materials from various activities, for productive uses, which represent effective conservation of resources and reduction of expenses for collection and disposal of the solid wastes.
- Set up a technically appropriate management systems of solid wastes, from the stages of wastes collection, transportation, utilization, to the stage of final disposal by encouraging joint investment and granting concessions to the private sector.



- Support implementing agencies, particularly at the local level, such as Bangkok Metropolitan Administration municipalities, and sanitary units, in formulating solid wastes disposal plans for the future to keep pace with the increasing volumes of solid wastes.
- Educate the public on how to store, and reduce the daily supply of garbage, in line with collection and disposal methods of implementing agencies, and set appropriate level of service fees.
- Procure land for garbage disposal using sanitary landfill method for a period of at least five years for communities of all sizes, and consider the feasibility of using incinerators in the future.
- Impose controls and strictly enforce laws and regulations covering both public and private institutions concerning the use of correct methods of disposal of hazardous wastes from agricultural and industrial production, such as containers of toxic chemicals, used batteries, broken fluorescent lights, and infectious wastes from hospitals.
- Encourage investment in the construction of central hazardous wastes treatment plants for industrial factories in locations with heavy factory concentrations via joint ventures with the private sector, or granting of concession to the private sector, or implementation of pilot projects by the public sector.

#### **Pollution from toxic and hazardous chemicals**

- Formulate measures for management of toxic and hazardous chemicals in an integrated manner from the stages of import of hazardous chemicals, setting standard for storage of the products, standard for transportation, and disposal of the hazardous wastes, as well as strictly enforce all control measures.
- Encourage greater safety precautions for utilization, storage, and transportation of oil by strictly enforcing safety measures, as well as urge concerned public and private agencies to procure all the necessary equipment for the efficient prevention of oil leakages. These agencies should also be encouraged to prepare contingency plans in case of accidental leakages, as well as review and revise inappropriate safety precaution measures, particularly in the use of liquefied petroleum gas.
- Reduce use of toxic and hazardous chemicals in agricultural and industrial activities by encouraging use of other substitutes, such as use of organic fertilizers, prevention and control of pests and insects via natural methods, and production process improvement in industrial factories etc.
- Encourage preparation of plan for the prevention of accidents caused by poisonous chemicals and other hazardous materials, particularly in industrial zones in the Eastern Seaboard area, and other depots for storing poisonous and toxic chemicals.

- Encourage setting up of an information center for the exchange of information, public relations activities, and training services to educate concerned agencies and the public about proper storage, the use of hazardous chemicals, and instructions to follow in the event of an accident caused by these poisonous products.

### **Global warming problem**

- Carry out studies quickly to help determine Thailand's position for cooperating with the world community in tackling the global warming problem as well as emphasize reforestation efforts via development of plantations to help absorb carbon dioxide.
- Prevent problems associated with global warming and the greenhouse effect, caused by increase in carbon dioxide from fuel combustion, by encouraging planting of trees and reforestation, and carry out public relations campaigns to create understanding by the public about the serious impacts and to seek cooperation in solving the problems.

### **Improvement of development mechanism and administration and management of the environment.**

- Enforce the "polluter-pays-principle" to ensure that polluters indeed are required to shoulder the burdens of treatment and disposal of pollution within the Seventh Plan period.
- Enforce collection of fees for pollution treatment and disposal in the form of pollution taxes, fees or service charges, at rates which may be determined in accordance with types of activities and products causing damages to the environment. This money should then constitute a fund for investment in environmental management.
- Set up an environment fund with initial endowment from the government. In the beginning, existing public agencies may be assigned to administer the fund until appropriate legislation has been prepared. With a proper legal basis, an independent organization, which has status of a juristic person, may be set up to administer the fund.
- Encourage enterprises with proper environmental management to mobilize capital from the stock market, and encourage financial institutions to set up funds to mobilize resources from the public for investment in projects or activities concerning the environment.

**Improve organization; administration and management, as well as amend laws, via the following:**

- Encourage formulation of plans and systematic coordination of urban environmental development plan, together with clear definition of the respective roles of the central, regional and local authorities, and encouragement of private sector participation.
- Improve organizations responsible for policy formulation and coordination at the central and local levels, and set up national and local organizations for the supervision and coordination of rehabilitation and development policies concerning environmental conditions (for Bangkok Metropolis and vicinity towns, and each province).
- Require the construction of infrastructure facilities with impact on the environment to set up a system for the prevention of environmental problems, and include the costs of such systems as part of the original investment cost.
- Provide partial or total public subsidies for construction of waste water treatment and disposal systems, as well as garbage disposal to the local authorities, which may include procurement of land, equipment, and vehicles necessary for the management efforts.
- Improve and strengthen the role of local authorities to enable them to manage waste treatment systems in an independent manner. The local authorities should have the flexibility to manage the treatment services, as provided by the local authorities themselves, or by sub-contracting to the private sector, and may determine service charges as appropriate.
- Set up a tripartite organization including communities, enterprises and the government to supervise and maintain environmental quality at an acceptable standard, particularly in urban areas, industrial zones, and tourist destinations.
- Develop manpower and technology for the reduction and treatment of pollution by speeding up development of manpower at the university level in the fields of sanitary and environmental engineering, and environmental science, emphasizing studies of pollution, as well as development of technicians at the levels of lower and higher diplomas in the fields of pollution control to supervise activities at treatment plants. Furthermore, speed up research and transfer of pollution control and pollution reduction technology which allows for possible design and construction of the system and production of pollution control equipment.
- Improve and amend the Improvement and Conservation of the National Environmental Quality Act, B.E. 2518 to cover prevention, control and management of the environmental in all aspects, including establishment of an environment fund, which may be efficiently used for effective environmental control.

Promote public relations to educate the public, and to disseminate information on various kinds of pollutants to the public at all levels, as well as carry out campaigns to mobilize cooperation for the prevention and solution of environmental problems.

**UNITED STATES**

## UNITED STATES OF AMERICA

### ADMINISTRATION

- I. List the national and regional (state) government authorities that administer and regulate your transportation industry with a contact office, address, and phone number.

See Attachments 1 and 2.

- II. Describe how the major transportation modes (i.e., maritime, aviation, rail, highway) are regulated by your national authorities. Discuss the general framework of regulation in the following areas:

#### **Infrastructure Development**

**MARITIME.** The Federal government regulates the maritime industry in areas of navigation, safety, port security, vessel certification and inspection, and environmental concerns. Individual port administration of shoreside facilities and terminals is decentralized and handled by state/local authorities. Ocean shipping services are administered primarily at the Federal level. The DOT U.S. Coast Guard (USCG) is responsible for administering regulations on the construction and operation of bridges over navigable waterways; establishing and maintaining aids to systems (VTS). The U.S. Army Corps of Engineers (USACE) is responsible for the construction, contracting, and scheduling of civil works projects; dredging of harbor and waterway channels and maintaining locks and dams.

**AIR.** The Federal Government regulates the aviation industry in areas of safety, security, operations, maintenance, and environmental concerns.

The Federal Aviation Administration (FAA) is responsible for the design, development, construction, operation, and maintenance of the air traffic control and navigation system (National Airspace System). It also provides direct funding assistance and guidance to airports for capital improvement projects via the Airport Improvement Program (AIP). Most airport investments, however, are undertaken by airport owners, which for the most part are local or regional authorities.

**RAIL.** Privately-owned freight railroads provide the vast majority of the nation's 160,000 miles of rail infrastructure. Amtrak, the national rail passenger system that is supported by the Federal Government, owns about 600 miles of rail.

**HIGHWAY.** The Federal Highway Administration (FHWA) funds a large

percentage of the construction and maintenance (reconstruction, resurfacing) of the major highway systems (e.g., the Interstate System) as well as a significant portion of the lower regional and state systems.

The Federal-aid program is tax-supported and provides a connected system of highways nationwide, without direct Federal jurisdiction. Eligibility for Federal-aid funds is contingent on the adoption of uniform design standards.

For roads on Federal land and Indian reservations, responsibility for highway infrastructure development is assigned to the FHWA's Federal Land Program, the Bureau of Indian Affairs, the Bureau of Land Management, or the Forest Service.

**GENERAL.** The Economic Development Administration (EDA) provides public works grants for access roads, and port and airport terminal development in rural and urban areas experiencing high unemployment, low income levels, or sudden and severe economic distress.

#### **System Operations and Maintenance**

**MARITIME.** The USACE dredges all harbor and navigable waterway channels and maintains all locks and dams. The USCG maintains all harbor and navigable waterway navigation aids. The Federal Maritime Commission (FMC), an independent agency, is responsible for economic regulator functions affecting ocean shipping. The DOT Maritime Administration (MARAD) is responsible for policy and promotional programs in support of the U.S. merchant marine.

**AIR.** The FAA owns, operates, and maintains the Federal National Airspace System. The FAA handled over 80 million aircraft in 1988 through 454 air traffic control (ATC) towers, 22 Air Route Traffic Control Centers (ARTCC), and numerous terminal radar approach control (TRACON) facilities supplementing ATC tower control around the busiest airports.

**RAIL.** The U.S. Interstate Commerce Commission (ICC) regulates interstate commerce and has authority over railroad economic regulations. The Federal Railroad Administration (DOT) participates in rulemakings to decide policy issues and in significant individual cases, such as mergers.

**HIGHWAY.** More than 40 States still regulate intrastate trucking operations, some of which are simply continuations of interstate or foreign shipments.

Agencies that are responsible for Federal lands administer the operations and maintenance of highway facilities on this land. On non-federally owned land, system operations and maintenance is the responsibility of State and local government authorities.

## **Environmental Protection**

**GENERAL.** The basic national charter for environmental protection is the National Environmental Policy Act of 1969 (NEPA), which directs all Federal agencies to prepare a detailed impact statement before undertaking any project with the potential to significantly affect the environment. More than 30 additional Federal environmental statutes and Executive Orders have been enacted to further protect and preserve a variety of natural resources, public land, and historic sites.

The EPA has oversight of air quality issues, and is empowered to require enforcement of restrictions on travel or other measures to alleviate air pollution problems in places where air quality is below specified standards.

The EPA also has authority under the Noise Control Act of 1982 to regulate noise emanating from various types of equipment and engines. EPA authority extends to establishing operating standards for aircraft, and for trucks and rail vehicles engaged in interstate commerce.

Preservation of wetlands, protection of drinking water sources, and protection of the marine environment are responsibilities shared by many government agencies, including the Department of Transportation (DOT) and the Environmental Protection Agency (EPA). The U.S. Army Corps of Engineers is responsible for issuing permits for any construction activity on or near wetlands. Planning and zoning of land use are responsibilities of local government.

**AIR.** Most environmental issues associated with aviation are regulated by the FAA. The FAA promulgates and enforces regulations on aircraft noise and aircraft engine emissions based on EPA standards. The Airport Noise and Capacity Act of 1990 and subsequent 1991 rules prohibit the operations of Stage 2 aircraft after December 31, 1999. The law also requires a national program to review noise and access restrictions taken by airports on Stage 2 and Stage 3 aircraft.

**RAIL.** Requirements of the 1990 Clean Air Act and pending energy legislation will require development of alternative (cleaner) fuels and increased consumptive efficiency.

**MARITIME.** The USCG enforces rules and regulations on the prevention of pollution on all waterways and harbors and regulates the movement of hazardous materials. Laws administered by the Coast Guard include the Oil Pollution Act of 1990, which created a comprehensive prevention, response liability and compensation regime for dealing with vessel and facility-caused oil pollution. Its aims are to prevent and clean up oil spills, impose greater liability on those responsible for such incidents, and compensate those who suffer resulting economic damage. The law imposes a wide range of new spill response, equipment and operating rules.



## Safety and Security

**GENERAL.** The Federal Government has fundamental responsibility for ensuring the security and accessibility of the transportation system for the traveling public. The DOT fulfills this responsibility by setting policy, issuing rules and regulations, conducting inspections, and taking enforcement actions to ensure that the safety, security, and accessibility of transportation systems are not compromised. DOT continues to advocate for "rules of the road" that deal with evaluation of acceptable risk (e.g., speedlimits), removal of competitive advantage, and drug testing of individuals responsible for public safety.

The transportation of hazardous materials presents a continuing risk to the environment from accidental spills. Hazardous materials are carried by truck, railcar, pipeline, tanker, barge and aircraft. Federal regulations of hazardous shipments are aimed at proper containment of the materials and adequate communication of the hazard. In addition, Federal agencies, in particular the Coast Guard, play an important role in emergency response to accidents, providing training and coordinating Federal, State, and local activities.

Motor carrier safety continues to be regulated and enforced (in conjunction with the States) by the Federal Government.

**AIR.** The primary responsibility of the FAA is to ensure the safety of U.S. civil aviation. FAA maintains a safe aviation environment through regulations, standards, and other guidance. For example, the FAA established new requirements in 1987 and 1988 over personnel identification systems and the passenger-screening process. In 1989, FAA regulations were expanded to require airport security plans to be approved by the FAA. FAA specialists coordinate the security work of airlines, airport operators, and other members of the aviation community.

**RAIL.** The primary focus of the FRA is railroad safety, which has not been deregulated. The FRA Office of Safety develops standards and regulations governing safety of railroad infrastructure, equipment, and operating practices. FRA conducts safety inspections of railroads and levies fines for infractions of the rules and regulations.

**HIGHWAY.** The Department of Transportation's National Highway Transportation Safety Administration (NHTSA), sets guidelines for safety on passenger vehicles, conducts safety research and houses the national reporting system on highway accidents. The FHWA has responsibility for safety characteristics of highway vehicles as well as highway standards, which include the safety aspects of design.

**MARITIME.** The USCG enforces rules and regulations on safety and security of ports; and conducts ship safety inspections on all shipping, U.S. and foreign, calling at U.S. ports; performs regular annual inspections on U.S. -flag merchant ships; and annual safety examinations on all foreign-flag ships calling at U.S. ports. The USCG also checks the licenses and certificates of U.S. and foreign merchant mariners to insure proper manning of all ships calling at U.S. ports.

## Standards

**AIR.** The FAA issues standards pertaining to aircraft, people working in the aviation field, security, airport construction, operations, maintenance, and other areas.

**RAIL.** Railroad standards are developed by the FRA Office of Safety and through efforts of the Association of American Railroads.

**HIGHWAY.** The FHWA mandates standards for the design and construction of highway systems, including the Interstate System. The FHWA cooperates with the American Association of State Highway and Transportation Officials (AASHTO) to develop highway design and construction standards. The AASHTO is an organization, representing 52-member state highway and transportation agencies, including the District of Columbia and Puerto Rico, to foster the development, operation, and maintenance of an integrated national transportation system. The AASHTO standards are applied to all construction using Federal-aid funds.

**MARITIME.** The U.S. Coast Guard develops standards for those areas considered critical, both national and international. Specifically, the USCG develops standards in recreational boating safety, commercial vessel safety and pollution prevention programs.

III. Describe how your transportation system is organized between national, regional, and local governments. Discuss the intergovernmental relationships by transportation mode.

**MARITIME.** With no central port planning body, the United States has a system of diverse local port organizations. Although affiliated with government, these state and local agencies engage vigorously in competitive commercial enterprise -- their most visible characteristic. This public utility/private business role allows public port entities to respond more quickly to their customers' needs, while at the same time attracting economic development.

The development of landside port terminals has been the responsibility of states, local governments, and the private sector. The U.S. Government has historically performed the dredging and maintenance of federally-authorized shipping channels and the construction of breakwaters and jetties, and provided navigation aids such as lights, channel markers, and buoys. Public port entities and private industry at the local level perform the functions of planning, developing, and managing the terminal facilities and services.

In most cases, private companies construct and operate bulk terminal facilities. On the other hand, public port entities, established as independent city, state, or even bi-state agencies and navigation districts, are the primary developers of transfer facilities for handling general cargo. The most common institutional form is the independent navigational district, administered as a public authority set up under

state law to develop and manage a specific harbor area within a defined political jurisdiction.

**AIR.** The FAA is responsible for National Airspace System, including the design, construction, operation, and maintenance of all enroute and virtually all terminal air traffic control and navigation facilities. Terminal air traffic control at a few small airfields is provided privately or by state or local governments. The FAA, using information from the National Weather Service, provides pre-flight and in-flight weather service.

State and local governments or their designated authorities own and operate virtually all major airports in the United States. These entities are responsible for airport construction, maintenance, and operation except for the airfield, which is operated under Federal air traffic control. The Federal Government assists airport owners by establishing standards for design, construction, safety, and security, and by providing financial assistance, primarily for capital investments through the Airport Improvement Program.

**RAIL.** Other than 30 shortline railroads owned by state and local governments, the more than 600 freight railroads operating in the U.S. are privately owned. Fourteen major intercity freight carriers account for about 96 percent of total rail ton-miles produced. Amtrak, a for-profit, quasi-government corporation, provides intercity rail passenger service to 45 states over its own lines and those of the freight railroads. Commuter railroads serving major metropolitan areas are generally owned by local governments, and may be operated by the local authority or under contract by Amtrak or a freight railroad.

**HIGHWAY.** The road system is predominantly a State and local government-owned entity. The Federal Government owns only 6 percent of road mileage. These consist almost exclusively of roads in national parks, forests and Federal lands. Within States, jurisdiction varies significantly. West Virginia has jurisdiction over 91 percent of the public road and street mileage within its borders; Kansas, at the other extreme, has jurisdiction over only 8 percent of mileage within its borders. Mileage that is not under the purview of either the Federal or State governments is controlled by either local county or municipal governments or is privately owned.

In addition to administering the Federal-aid program for construction and maintenance of major roads, the Federal Government conducts research on highway-related technology and provides technical assistance to State and local governments.

The States have prime responsibility for administering the principal highways in the United States. States use Federal-aid funds and their own revenues to construct and maintain the highway systems within their jurisdiction. Most of the State highways are eligible for Federal-aid funds except the functional local and minor collector roads. Local jurisdictions in most of the States have control over the lower classes of roads, especially local roads. They may use their own funds, and often the States provide funding for local roads.

IV. Identify the operations and services within your transportation modes that are performed by private or semi-private organizations.

**GENERAL.** At the turn of the century, nearly all interstate transportation was subject to Federal economic regulation. By 1987, less than one-third of the industry was covered. At the same time, the regulatory emphasis has shifted from economic controls (such as rate and entry controls, industry concentration, labor relations, and antitrust immunity) to safety, environmental, and capability restrictions.

Significant deregulatory legislation includes the Railroad Revitalization and Regulatory Reform Act (1976) and the Staggers Rail Act (1980) for railroads; the Motor Carrier Act of 1980 and the Household Goods Transportation Act (1980) for trucking; the Bus Regulatory Reform Act (1982) for buses; the Shipping Act of 1984 for ocean carriers; and the Air Cargo Deregulation Act (1977) and the Airline Deregulation Act (1978) for airlines.

Generally, the aim of deregulation has been to remove or reduce government-imposed constraints on the power of market forces to determine industry economics. In most cases, deregulation has been successful in creating conditions more conducive to industry success.

**MARITIME.** Annual vessel inspections and surveys are performed by and certificates of compliance are issued by the American Bureau of Shipping (ABS), a private entity, on all U.S.-foreign -flag vessels also use ABS as their maritime classification society.

**AIR.** The Federal Government strongly supports private sector involvement in commercial service airport management and operations. Today, most commercial service airports are the property of State or local governments, or their designated authorities. Of the 71 largest commercial service airports, approximately 38 are city-or county-owned, 12 are port authority-owned, 16 are airport authority-owned, and 5 are state-owned. None are owned by the Federal Government or private enterprise, although there is growing interest in the potential for privatizing some commercial service airports.

Facilities and services for aircraft operations at the airport (e.g., landing, takeoff, parking) are generally provided by the airport owner except for air traffic control services provided by the FAA. Aircraft servicing and handling (e.g., fueling, cleaning, maintenance) and traffic servicing (e.g., passenger check-in, baggage, and cargo handling) may be performed by the airport owner, a private contractor, or the airline (U.S. airlines are privately owned and operated). Most the commercial activities at U.S. airports (e.g., automobile parking, duty free shops) are operated by private companies, often as tenants or agents for the public agency that owns the airport.

**RAIL.** The Staggers Rail Act of 1980 freed 85 percent of rail traffic from economic regulation, giving railroads the flexibility to set rates, rationalize routes, and market travel services.

Railroad transportation is unique among the major modes of transportation in the United States in that the railroad companies typically own, operate, and maintain their own rights-of-way. Unlike the public highways, airspace, or waterways, the railroads are typically owned by an individual company, which can then retain unrestricted and exclusive access to the tracks and facilities. Ownership of the right-of-way also places upon the railroad companies the financially significant burden of maintaining, rehabilitating, expanding, or restructuring the system.

U.S. railroad freight operations receive no direct Federal subsidies, relying almost totally on operating revenues for funds. The Congress appropriates \$10 to \$12 million annually, but this is earmarked for local rail projects on small railroads.

**HIGHWAY.** The Bus Regulatory Reform Act of 1982 (BRRA) was enacted to promote competition in the bus industry by reducing unnecessary and burdensome government regulation. The BRRA permitted carriers to enter and exit routes more easily and eliminated almost all collective ratemaking. In addition, it permitted the ICC to preempt State, Public Utility Commission regulations with respect to entry, rates, and route abandonments. The Act allowed charter and tour operators to enter the market and operate on a much freer basis.

The Motor Carrier Act of 1980 substantially freed the interstate trucking industry from economic regulation. Many new truckload carriers have entered the market, and existing less-than-truckload (LTL) carriers have expanded their scope. Before 1979, no motor carrier had complete 48-State general commodity LTL authority; today, more than 8,000 carriers have this authority. In addition to the public road system, there is also privately owned road mileage which is developed, maintained, and operated by the private sector. Much of the government construction of highways is done under contract with the private sector. This is also true for some maintenance and for the operation of toll and parking facilities. Private sector involvement includes participation in organizations such as AASHTO, and in the development of research agenda and standards.

V. Place an appropriate check by each part of your transportation industry to describe its most common form of ownership or administration.

	<u>Federal</u>	<u>Regional</u> <u>/Local</u>	<u>Private</u>	<u>Semi-</u> <u>public*</u>
1 Port authorities		x		x
2 Port operations		x	x	x
3 Ocean carriers			x	
4 Inland waterway carriers			x	
5 Airlines			x	

6	Airport authorities				x
7	Airport operations			x	x
8	Air traffic control	x			
9	Railroad freight			x	
10	Railroad passenger				x
11	Railroad commuter			x	
12	Highway construction	x		x	
13	Highway maintenance	x		x	
14	Other				

\* Refers to a designated authority of the Federal Government or a regional or local government that operates as a business, either for-profit or non-profit.

VI. Provide an overview of new policy directions, major programs and projects, and new products that will make your transportation system more efficient.

**MARITIME.** Increases in cargo volume and improvements in vessel technology will continue to drive the modernization of U.S. port terminal facilities in the 1990s. The ability of deep-draft ports to make improvements in a timely manner will become more difficult, expensive, and complex given the existing fiscal constraints, enhanced environmental opposition, and heightened public involvement. But capital investments will be required for major ports to remain competitive and to reduce the costs of cargo handling. Given the large-scale increases in cargo throughput capability brought about by advance cargo handling technology, however, additions to capacity are likely to be more incremental than quantum.

While some new marine terminals will be built during the 1990's, the majority of U.S. ports investment will be in renovation of advanced equipment for more efficient handling and control of cargo. Surveys indicate that major ports plan to spend \$4 to \$5 billion in marine terminal improvements during the next decade.

On June 17, 1992, Secretary of Transportation Andrew H. Card introduced a wide-ranging set of maritime reform initiatives to Congress. This legislation is designed to improve the competitive position of the U.S. ocean carriers and their ability to support national defense (sealift) requirements.

**AIR.** New airport construction (e.g., New Denver Airport) and expansion of current operations and facilities will increase system capacity in the future. Emerging satellite navigational and communications technology could revolutionize air traffic control, adding significantly to the safety and efficiency of operations. The scheduled introduction of more efficient and quieter, Stage 3 aircraft will mediate environmental impacts and provide airline fuel savings.

**RAIL.** High-speed electric rail passenger systems (up to 125 mph or 201 km/hr.) and magnetic levitation (MAGLEV) are considered promising technologies of the future for relieving congested highways and airports. An interagency partnership called the National Maglev Initiative (NMI) has been formed to work with State governments and the private sector to evaluate the role of magnetic levitation in the United States. NMI participants are the Federal Railroad Administration (FRA), the U.S. Army Corps of Engineers, and the Department of Energy (DOE).

U.S. and Canadian railroads have been developing advanced train control systems (ATCS) that utilize microelectronics and telecommunications to control train operations. Different versions of ATCS are currently being tested toward eventual development of "smart trains."

**HIGHWAY.** The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) provides significant support for the Intelligent Vehicle/Highway Systems (IVHS) program, a multi-faceted public/private effort to improve system operations through technology advances. The act reauthorized the Federal-aid highway program through 1997, significantly altering responsibility for Federal-aid project selection. It requires statewide, metropolitan, and intermodal planning, development of rigorous system management programs, provides flexibility in the mutual transfer of highway and transit funds, and allows more liberal Federal-toll financing.

## FINANCING

### VII. Identify the methods (e.g., user fees, license fees, tolls, taxes), mechanisms, and institutions (e.g., National government, multilateral organizations) that provide funding for transportation infrastructure projects.

**GENERAL.** Among the principal methods of financing are general taxes, user fees, general obligation and revenue bonds, commercial loans, and grants. Revenues from user fees can take the form of tolls, facility leases, equipment rentals, wharfage and dockage, etc.

For long-term financing, general obligation bonds are normally floated by a state or local government acting as the legislative arm of a port terminal or airport and providing the security for the bonds to the limit of their taxing authority. Revenue bonds are secured by the operating revenue stream of the project.

**MARITIME.** Public ports in the United States use the variety of funding methods described above to finance the construction and modernization of their terminal facilities. As public assistance remains constant or declines, U.S. ports have turned to revenue bonds and alternative financial methods such as short-term notes to defray the total cost of a project or the cost of long-term borrowing.

The Federal Government does not offer specific grants for port development. However, the Economic Development Administration has provided grant assistance indirectly through programs to aid economically distressed areas.

The basic funding sources for improvements and operations of the waterway system are the General Fund of the U.S. Government and user charges. User charges were first imposed via the Inland Waterways Revenue Act of 1978. International operations are financed almost entirely from freight revenues, with a small supplement coming from operating subsidies.

Estimates for 1988 gross revenues of U.S.-flag liner companies are set at \$5.0 billion, including \$218 million in operating subsidies. Capital investment in new construction has been very limited, with only five ships contracted for in U.S. shipyards in the past decade. At 1988 price levels, annual maintenance averaged \$383.9 million for all harbors deeper than 14 feet, with another \$30 million for shallower small ports.

**AIR.** Approximately half of all Federal funding for aviation is derived from the Airport and Airways Trust Fund -- a revenue account supported by various aviation user fees and charges. Annual revenues in the Trust Fund have grown from \$560 million in 1971 to \$3.7 billion in 1989. All Federal air traffic system facilities and equipment, including associated research, engineering, and development are funded from the Trust Fund. Operations and maintenance of the system are funded from both the Trust Fund and general tax revenues. Congress must authorize and appropriate all expenditures of Trust Fund monies by the FAA.

Federal funding covers nearly 100 percent of the capital and operating costs for the National Airspace System. In addition, the FAA provides capital grants (by means of the Trust Fund) to eligible airports under the Airport Improvement Program (AIP). AIP grants are used for airport development and planning, including noise abatement programs. Overall, AIP grants account for less than one-third of the capital improvement funding needs of qualifying airports. State and local governments or their designated airport authorities provide the balance of funding.

Trust Fund revenues are obtained from two sources: user fees collected by the U.S. Internal Revenue Service and interest on existing Trust Fund cash balances. There are four principal user fees:

- Domestic Passenger Ticket Fee -- ten percent of the value of domestic passenger tickets.
- Freight Waybill Tax -- 6.25 percent of the value of domestic air freight charges.
- International Departure Fee -- \$6 per departing international passenger.
- General Aviation Fuel Tax -- \$0.15 per gallon for general aviation gasoline and \$0.175 per gallon for general aviation jet fuel.



The United States does not impose direct charges for either enroute or terminal air traffic control services.

State and local governments, or their designated authorities, fund airport infrastructure and operations through a variety of charges to users, including landing fees, rents, concessions, and general tax revenues. A major new source of non-Federal funds for airport infrastructure is the Passenger Facility Charge (PFC). Subject to approval by the FAA, airports may collect PFC's of up to \$3 per departing passenger. These charges give airport authorities a source of revenue independent of the airlines. In addition, private enterprises located at airports, including airlines and concessionaires, may fund certain infrastructure investments.

DOT subsidizes air service to small communities under the Essential Air Service (EAS) Program.

**RAIL.** Most rail infrastructure is owned and financed privately. Amtrak funds infrastructure projects using a combination of farebox revenues and Federal Government subsidy.

**HIGHWAY.** Highways are financed using a variety of revenue sources, including direct user fees, license fees, tolls, and taxes on fuel and vehicles. Funding also comes from indirect fees, including income taxes and local property assessments. In 1988, States collected about one-half of total revenues; 28 percent was collected by counties, townships, and municipalities; and 22 percent was collected by the Federal Government. Combined revenues were \$69 billion; bond issues provided an additional \$4.4 billion.

The Federal Government provides funding for highway capital projects using revenues raised from user fees, primarily the gas tax. Revenues are placed in the Highway Trust Fund and are appropriated by Congress based on authorization levels and allocation formulas contained in legislation.

For all levels of government, combined, user fees provided 60 percent of current highway receipts. Motor fuel taxes generated over 90 percent of all highway user charge revenues in 1988. While user fee financing is the dominant source of highway revenue, the trend in the use of general revenues for highways has been increasing over the years. For all governments, the share of highway programs financed from general revenues increased from 20 percent in 1965 to 35 percent in 1987. Significant contributions from the private sector for local highway improvements is a recent phenomenon in highway financing. Private participation can take the form of making donations, taking joint public/private responsibility, or building and operating privatized highways. Donations from private sources include monetary contributions and the transfer of real property and services.

At the State level, user fees are the predominant source of funding, but there is a great deal of variation (e.g., titling fees, registrations, sales taxes, etc.). Some highway agencies receive general revenue from the State; others contribute user fee funds to general revenue. Limited primarily to property taxes, local governments can be heavily dependent on state funds generated from fuel taxes or user fees. Some states use various forms of bond indebtedness as a funding tool.

**VIII What opportunities exist for foreign investment in your transportation infrastructure and services?**

**AIR.** The Federal Aviation Act limits foreign-held voting equity to 25 percent. In January 1991, the Secretary of Transportation relaxed restrictions on foreign investments to enhance access to debt capital from foreign sources and to increase the amount of non-voting equity capital that can be held by foreign entities to 49 percent of an airline's total capital, provided that actual corporate control remains in the hands of U.S. citizens.

**RAIL.** There are no U.S. laws restricting foreign ownership or investment in the nation's privately-owned freight railroads, including their infrastructure. There is significant foreign investment in, and in some cases, full ownership of U.S. railroads by foreign companies, primarily Canadian and Mexican railroads. Control or ownership of a railroad engaged in interstate commerce, however, must be approved by the ICC. Publicly owned commuter railroads at times finance infrastructure investment with negotiable bonds that may be purchased by foreigners. Equipment may be procured from worldwide sources. For example, passenger cars purchased by Amtrak and commuter railroads are frequently manufactured overseas.

**HIGHWAY.** Increased interest in debt financing and private sector ownership of public roads provides an opportunity for foreign investors to participate both as developers of roads and as investors in highway revenue based bond issues.

## Attachment 1

### **U.S. Federal Agency Contacts**

The U.S. transportation system is developed, regulated, and maintained by numerous Federal agencies. The contact offices and phone numbers for these agencies are as follows:

#### **Department of Transportation (DOT),**

Office of International

Transportation and Trade, P-20, Rm. 10300, 400 7th Street

S.W. Washington, D.C. 20590.

Tel : (202) 366-4368

#### **DOT Modes**

**Maritime Administration (MARAD), Office of International Activities, MAR-420, Rm. 7119, (DOT address). (202) 366-5773**

**Federal Aviation Administration (FAA),**

Office of International Aviation, AIA-1, Rm. 1027,

800 Independence Ave

S.W., Washington, D.C. 20591. (

Tel : (202) 267-3213

**Federal Highway Administration (FHWA),**

Office of International Programs, HPI-1, Rm. 3317, (DOT address).

Tel : (202) 366-0111

**Federal Railroad Administration (FRA),**

Associate Administrator for Policy, RRP-1, Rm. 8302, (DOT address).

Tel : (202) 366-0173

**National Highway Traffic Safety Administration (NHTSA),**

International Harmonization, NOA-05, Rm. 5220, (DOT address).

Tel : (202) 366-2114

**United States Coast Guard (USCG),**

International Affairs Staff, G-CI, Rm. 2114, 2100 2nd Street

S.W., Washington, D.C. 20593.

Tel : (202) 267-2280

**Department of State,**

Bureau of Economic and Business Affairs,

Transportation Affairs,

2201 C Street, N.W., Washington, D.C. 20520.

Tel : (202) 647-3148

Department of Treasury,  
Under Secretary for International Affairs,  
Rm. 3432, 1500 Pennsylvania Ave.,  
N.W., Washington, D.C. 20220.  
Tel : (202) 566-5363

Environmental Protection Agency (EPA),  
Assistant Administrator for International Activities, W1135E, 401 M Street,  
S.W., Washington, D.C. 20460.  
Tel : (202)260-4870

International Trade Commission (ITC),  
Department of Commerce,  
Transportation Branch,  
Rm. 500D, 500 E Street,  
S.W., Washington, D.C. 20436.  
Tel : (202) 205-3406

Interstate Commerce Commission (ICC),  
Office of Economics, 12th St. & Constitution Ave.,  
N.W. Wash.D.C. 20423.  
Tel : (202)927-6000

## Attachment 2

### State Agency Contacts

The contact offices, addresses, and phone numbers for State transportation offices are listed below:

#### ALABAMA

Transportation Rates and Services  
Public Service Commission  
P.O. Box 991  
Montgomery, AL 36102  
Tel : (205) 242-5172

#### ARIZONA

Dept. of Transportation  
206 S. 17th Ave.  
Phoenix, AZ 85007  
Tel : (602) 255-7226

#### CALIFORNIA

Dept. of Transportation  
1120 N St., #1100  
Sacramento, CA 95814  
Tel : (916) 445-2201

#### DELAWARE

Dept. of Transportation  
Transportation Admn. Ctr.  
Dover, DE 19901  
Tel : (302) 736-4303

#### GEORGIA

Dept. of Transportation  
2 Capitol Sq.  
Atlanta, GA 30334  
Tel : (404) 656-5206

#### IDAHO

Dept. of Transportation  
3109 Bogus Basin Rd.  
Boise, ID 83702  
Tel : (208) 334-3682

#### ALASKA

Dept. of Transportation  
and Public Facilities  
P.O. Box Z  
Juneau, AK 99811  
Tel : (907) 465-3900

#### ARKANSAS

Hwy. & Transportation Dept.  
P.O. Box 2261  
Little Rock, AR 72203  
Tel : (501) 569-2211

#### CONNECTICUT

Dept. of Transportation  
24 Wolcott Hill Rd.  
Wethersfield, CT 06109  
Tel : (203) 566-3477

#### FLORIDA

Dept. of Transportation  
Burns Bldg.  
Tallahassee, FL 32399-0450  
Tel : (904) 488-6721

#### HAWAII

Dept. of Transportation  
869 Punchbowl St.  
Honolulu, HI 96813  
Tel : (808) 548-3205

#### ILLINOIS

Dept. of Transportation  
2300 S. Dirksen Pkwy.  
Springfield, IL 62764  
Tel : (217) 782-5597

**INDIANA**

Office of Intermodal  
Transportation and Planning  
143 W. Market  
Harrison Bldg., Suite 300  
Indianapolis, IN 46204  
Tel : (317) 232-1470

**KANSAS**

Dept. of Transportation  
7th Fl., State Off. Bldg.  
Topeka, KS 66612  
Tel : (913) 296-3461

**LOUISIANA**

Dept. of Transportation  
and Development  
P.O. Box 94245  
Baton Rouge, LA 70804-9245  
Tel : (504) 342-7501

**MARYLAND**

Dept of Personnel  
301 W. Preston St., Rm. 609  
Baltimore, MD 21201  
Tel : (301) 225-4715

**MICHIGAN**

Dept. of Transportation  
P.O. Box 30050  
Lansing, MI 48909  
Tel : (517) 373-2114

**MISSISSIPPI**

Division of Energy and  
Transportation  
Dept. of Economic and  
Community Development  
510 George St., Suite 301  
Jackson, MS 39202  
Tel : (601) 961-4733

**IOWA**

Dept. of Transportation  
800 Lincoln Way  
Ames, IA 50010  
Tel : (515) 239-1111

**KENTUCKY**

Transportation Cabinet  
State Off. Bldg., 10th Fl.  
Frankfort, KY 40601  
Tel : (502) 564-4890

**MAINE**

Dept. of Transportation  
State House Station #16  
Augusta, ME 04333  
Tel : (207) 289-2551

**MASSACHUSETTS**

Executive Office of  
Transportation & Construction  
1 Ashburton Pl.  
Boston, MA 02108  
Tel : (617) 973-7000

**MINNESOTA**

Dept. of Transportation  
4th Fl., Transportation Bldg.  
St. Paul, MN 55155  
Tel : (612) 296-3000

**MISSOURI**

Dept of Hwy & Transportation  
State Hwy. Bldg.  
Box 270  
Jefferson City, MO 65102  
Tel : (314) 751-4622

**MONTANA**  
Transportation Div.  
Dept. of Commerce  
1424 Ninth Ave.  
Helena, MT 59620  
Tel : (406) 444-3423

**NEVADA**  
Dept. of Transportation  
1263 S. Stewart St.  
Carson City, NV 89710  
Tel : (702) 885-5440

**NEW JERSEY**  
Dept. of Transportation  
1035 Parkway Ave., CN600  
Trenton, NJ 08625  
Tel : (609) 530-3535

**NEW YORK**  
Dept. of Transportation  
Campus, Bldg. #5  
Albany, NY 12232  
Tel : (518) 457-4422

**OHIO**  
Dept. of Transportation  
25 S. Front St.  
Columbus, OH 43266-0578  
Tel : (614) 466-2335

**OREGON**  
Dept. of Transportation  
135 Transportation Bldg.  
Tel : (503) 378-6388

**RHODE ISLAND**  
Dept. of Transportation  
Providence, RI 02903  
Tel : (401) 277-2481

**NEBRASKA**  
Dept. of Roads  
S. Junction U.S. 77 & N-2  
P.O. Box 94759  
Lincoln, NE 68509-4759  
Tel : (402) 471-4567

**NEW HAMPSHIRE**  
Dept. of Transportation  
John O. Moeton Bldg.  
Hazen Dr.  
Concord, NH 03301  
Tel : (603) 271-3734

**NEW MEXICO**  
Dept of Hwy & Transportation  
PERA Bldg., Box 1028  
Santa Fe, NM 87501

**NORTH CAROLINA**  
Dept. of Transportation  
1 S. Wilmington St.  
Raleigh, NC 27601-1494  
Tel : (919) 733-2520

**OKLAHOMA**  
Dept. of Transportation  
200 NE 21st St.  
Oklahoma City, OK 73105  
Tel : (405) 521-2631

**PENNSYLVANIA**  
Dept. of Transportation  
1200 Transportation and  
Safety Salem, OR 97310  
Building  
Harrisburg, PA 17120  
Tel : (717) 787-5574

**SOUTH CAROLINA**  
Hwys. and Public  
Transportation 210 State  
Off. Bldg. Dept.  
955 Park St.  
Columbia, SC 29202  
Tel : (803) 737-1302

**SOUTH DAKOTA**  
Dept. of Transportation  
Transportation Bldg.  
700 Broadway Ave., E.  
Pierre, SD 57501  
Tel : (605) 773-3265

**TEXAS**  
Dept. of Hwys. & Public  
Transportation  
11th & Brazos St.  
Austin, TX 78701  
Tel : (512) 463-8616

**VERMONT**  
Agcy. of Transportation  
133 State St.  
Montpelier, VT 05602  
Tel : (802) 828-2657

**WASHINGTON**  
Dept. of Transportation  
Transportation Bldg.  
Olympia, WA 98504  
Tel : (206) 753-6054

**WISCONSIN**  
Dept. of Transportation  
4802 Sheboygan Ave.  
Madison, WI 53707  
Tel : (608) 266-1113

**DISTRICT OF COLUMBIA**  
Dept. of Public Works  
2000 14th St., NW, 6th Fl.  
Washington, D.C. 20009  
Tel : (202) 939-8000

**GUAM**  
Guam Mass Transit Authority  
P.O. Box 2950  
Agana, GU 96910  
Tel : (671) 649-9247

**TENNESSEE**  
Dept. of Transportation  
700 James K. Polk Bldg.  
Nashville, TN 37219  
Tel : (615) 741-2848

**UTAH**  
Dept. of Transportation  
4501 S. 2700 W.  
Salt Lake City, UT 84119  
Tel : (801) 965-4113

**VIRGINIA**  
Dept. of Transportation  
1221 E. Broad St.  
Richmond, VA 23219  
Tel : (804) 786-2801

**WEST VIRGINIA**  
Dept. of Transportation  
Bldg. 5, Rm. A-109  
State Capitol Complex  
Charleston, WV 25305  
Tel : (304) 348-0444

**WYOMING**  
Hwy. Dept.  
5300 Bishop Blvd.  
Cheyenne, WY 82002  
Tel : (307) 777-7471

**AMERICAN SAMOA**  
Dept. of Port Admn.  
Pago Pago, AS 96799  
Tel : (684) 633-4858

**NORTHERN MARIANA  
ISLANDS**  
Dept. of Public Works  
Saipan, MP 96950  
Tel : (670) 322-9450



283247617  
PUERTO RICO  
Div. of Administrative Tickets  
Dept. of Transportation and  
Public Works  
P.O. Box 41269  
Santurce, PR 00940  
Tel : (809) 726-7170

AT077 J 111111  
U.S. VIRGIN ISLANDS  
Dept. of Public Works  
Sub Base #8  
St. Thomas, VI 00802  
Tel : (809) 774-1301

Dept. of Transportation  
4701 S. 7th St.  
San Juan, PR 00919  
Tel : (809) 726-1112

Dept. of Navy & Public  
Works  
4701 S. 7th St.  
San Juan, PR 00919  
Tel : (809) 726-1112

Dept. of Transportation  
1211 S. Road 8  
San Juan, PR 00919  
Tel : (809) 726-1112

Dept. of Transportation  
1211 S. Road 8  
San Juan, PR 00919  
Tel : (809) 726-1112

Dept. of Transportation  
Bldg. 2, 3rd Fl.  
San Juan, PR 00919  
Tel : (809) 726-1112

Dept. of Transportation  
Bldg. 2, 3rd Fl.  
San Juan, PR 00919  
Tel : (809) 726-1112

Dept. of Transportation  
1211 S. Road 8  
San Juan, PR 00919  
Tel : (809) 726-1112

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