

Chapter 12

ROAD TRANSPORT IN THAILAND

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- Regulatory constraints on regular bus prices encouraged the entry of new competitors in a less regulated part of the market, offering more choice to consumers.
- Relaxation of quotas as well as infrastructure improvements led to lower prices and higher volumes of cross border road freight.
- Road transport reform raises significant issues of coordination across agencies.

12.1 INTRODUCTION

There are many challenges in road transport policy development in Thailand. Many of the important issues are related to the population in Bangkok. Its size has made it difficult to create a well-designed urban public transportation system that meets the needs of the entire population. Other current domestic road transport issues include too great a focus on mega-projects in urban areas and their associated infrastructure without considering the development of secondary roads, regulation in the market for passenger vans and price distortions such as lack of congestion and pollution charges. Thailand is also working with other economies in the South East Asian region to liberalise cross-border transport and to improve the transportation corridors which link their markets.

Transport policy in Thailand has developed in concert with urban development planning. The first four development plans by the National Economic and Social Development Board (NESDB plans) from 1963 to 1981 aimed at accelerating economic growth by emphasising utility infrastructure development, including electricity, water, transport, educational institutions and public health. Besides this, the plans focused on export-led and import-substitution industrialisation. The government, therefore, allocated a large amount of its budget to transport, energy and irrigation. The government invested highly in substantial projects such as the construction of dams, water-operated power plants and transport to connect the main provinces of the economy.

Beginning with an outline of the context of Bangkok, the current issues and recent developments in passenger transport, freight transport and cross-border movements are reviewed in this chapter.

12.2 THE ROLE OF BANGKOK

The Bangkok metropolitan population is almost 8 times as large as the second largest city in Thailand (Table 12.1). Bangkok has become not only the capital city but also the centre of political, financial and business activities. It is estimated that the population of Bangkok and its

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nearby provinces will reach 13.6 million (over 19% of Thailand's population) by 2017 (Table 12.2). There are two major consequences:

- Bangkok has become crowded due to the rising number of rural-urban migrants, leading to problems with housing shortages, a lack of basic infrastructure and impact on the public health service; and
- The land price in Bangkok has been soaring due to urban development and speculation.

Table 12.1: The population of Bangkok, Bangkok Metropolitan Area and Chiang Mai, 2003–08.

Provinces	2003	2004	2005	2006	2007	2008
Bangkok	5,844,607	5,634,132	5,658,953	5,695,956	5,716,248	5,710,883
Bangkok Metropolitan Area ¹	8,554,751	8,395,838	8,524,158	9,930,634	10,065,126	10,161,694
Chiang Mai	1,603,220	1,630,769	1,650,009	1,661,020	1,664,399	1,670,317

Source: Department of Provincial Administration 2010.

¹ Bangkok Metropolitan Area is primarily Bangkok, Samut Prakarn, Nontha Buri and Pathum Thani provinces.

Table 12.2: Forecast population growth in Bangkok and nearby provinces.

Area	Population (persons)		Growth rate (% per annum)
	2003	2017	
Bangkok (Bangkok Metropolitan Area)	6,502,000	8,066,000	1.6
Nearby provinces			
Samut Prakarn	1,025,000	1,347,000	2.0
Nontha Buri	906,000	1,346,000	2.9
Nakhon Pathom	800,000	1,007,000	1.7
Phatum Thani	702,000	1,211,000	4.0
Samut Sakhon	446,000	592,000	2.0
Bangkok Metropolitan Region	10,381,000	13,569,000	1.9
Thailand	63,665,000	70,016,000	0.7

Source: World Bank 2007.

As a result of the rising land price, rural migrants and the poor live in densely settled and run-down areas, which have turned into slum communities, and many people live in areas where the land price is lower than the urban area. This, in turn, creates pressure for public transport services. The residents have to commute from the suburbs to Bangkok, thus contributing to traffic congestion in Bangkok.

Accordingly, the government has implemented a passenger transport policy with the goal of universal service to keep the public transport between the city and outer Bangkok at a low cost. This has led to poor quality public transport. The middle class then prefer to use old cars or motorcycles. Cars and motorcycles are more prevalent than other vehicles in Bangkok: they account for approximately 75% of the total vehicles used (Table 12.3).

The increase in the use of passenger vehicles has led to more traffic congestion and to air and noise pollution problems. The development of roads has also brought extensive negative social impacts. For example, the deterioration of urban areas, the rise in slum areas, an increase in ineffective land use and environmental impacts (such as encroachment on forest areas, carbon dioxide emissions, massive energy consumption and water pollution). Furthermore, the increase in the number of roads and traffic has affected the rates of deaths and accidents from vehicles in Thailand.²

² The accident rate declined from 1997 as a result of road improvements (e.g., separated and wider road lanes). But the 1998–2007 death toll was about 127 296 people (average of 12 729 per year). In 2007 the economic and social cost of road accidents to the nation was THB232 855 million (USD7216 million). This was equivalent to 2.81% of the economy's GDP (DOH 2007). Some 1.5 million road crashes occur annually, resulting in about 9000 disabilities, 210 000 serious injuries and 750 000 slight injuries. The fatality rate on Thailand's roads is about six times that of Japan and Great Britain's (OECD database).

Table 12.3: The number of in-use vehicles in Bangkok, 1994–2010.

Type of vehicle	1994	2003	2010	Average annual growth (%)	2010	
					Share of fleet in Bangkok (BMA)	Bangkok fleet as % of Thailand's
Car	716,951	1,162,704	1,203,764	3.77	36.14%	53.59%
Microbus & passenger van	241,120	149,613	104,703	-5.78	3.14%	50.35%
Van & pick up	245,942	583,045	522,511	5.53	15.69%	20.44%
Urban taxi	22,256	63,228	49,224	5.83	1.48%	98.90%
Motor tricycle taxi (Tuk Tuk)	3,645	7,394	4,876	2.10	0.15%	41.94%
Motorcycle	851,853	857,460	1,299,637	3.06	39.02%	14.46%
Truck	73,145	75,800	61,732	-1.20	1.85%	14.39%
Bus	17,457	26,225	18,831	0.54	0.57%	27.26%
Other	13,220	11,248	65,298	12.09	1.96%	27.30%
Total	2,185,229	2,936,717	3,330,616	3.06	100.00%	22.51%

Sources: World Bank 2007, Department of Land Transport, Land Transport Promotion Center 2010.

Due to the increased population and housing density in Bangkok (such as at the Bangkok port), the government launched an extended industrial estate policy, which has resulted in more extensive urbanisation and more sprawl. During three NESDB plans (1982–96), the government implemented a decentralisation policy and invested heavily in projects such as the Eastern Seaboard Project which consists of the Laem Chabang Deep Sea Port, Map Ta Phut Industrial Estate and the Northern Region Industrial Estate. Although the plans focused on investment in public infrastructure in Bangkok's outskirts, the development also extended to central and eastern regions; but Bangkok and its vicinity was still the centre of development.

With sound economic growth, a rising population and changing lifestyles resulting in increasing demand for goods and services, the urban areas attract the modern retailers, including the 'mega markets' (47 of Thailand's 166 – 28.3% – are located in Bangkok.). The entry of these modern businesses had a mixed effect on traffic issues. On the one hand there is greater traffic congestion due to their location within inner Bangkok and other large cities of Thailand. On the other hand they brought innovative urban freight logistics management. Regarding the urban logistics management, the foreign modern retail businesses use information and communications technologies to improve the flow of their supply chains and optimise them by reducing the number of warehouses, centralising inventories and consolidating deliveries through a distribution centre or so-called 'hub and spoke' transport. The freight consolidation approach will lessen the number of vehicles and their trips by using bigger and fewer trucks, reducing the traffic at loading areas, reducing the supply chain cost, optimising inventory management as well as contributing to the improvement in air and noise quality and pollution in the city centre.

12.3 CHARACTERISTICS OF THE ROAD TRANSPORT INDUSTRY

For the past 20 years the Thai government has been investing heavily in a road network system. Road transport has become the most significant sector of the economy, despite its inefficiency in terms of energy consumption. The government's policy is to encourage this development, since it may lead to the development of land use and its surrounding estates, which will finally bring about the economic growth needed for many regions. Not surprisingly, today Thailand's transport sector of passengers and freight is dominated by road. Thailand's Department of Land Transport (DLT), a government agency under the

Ministry of Transport, is the main regulator for bus and truck transport. Established on 11 September 1941 (BE2484), the DLT is responsible for the systematisation and regulation of land transport by conducting the monitoring and inspection, which ensures the smooth running of and conformity with the relevant land transport rules and regulations.

12.3.1 Passenger transport

Passenger transport in Thailand consists primarily of personal vehicles, including cars, personal pick-ups and motorcycles. For passenger public transport there are four categories of fixed route (Table 12.4) and there are two government agencies that operate bus transport: the Transport Company Ltd and the Bangkok Mass Transit Authority (BMTA), both of which are government enterprises that have the government as the primary shareholder with 51% while private shareholders have 49%.

- The Transport Company Ltd is permitted to operate the routes of categories 2 and 3;
- The BMTA is permitted to operate the routes of categories 1 and 4 in Bangkok; and
- Private companies are entitled to operate the routes of categories 1 and 4 in the provinces, categories 1 and 4 in Bangkok and category 3.

The DLT is the government agency authorising public bus regulations:

- To supervise and control fixed-route buses to run on a fixed route and on the condition of picking up the passengers at specific locations according to a timetable, to collect bus fares at government-regulated rates and to stop at regulated bus terminals;
- To stipulate, improve and revoke the bus route and to renew/withdraw bus operation licences;
- To stipulate and improve the condition of vehicle operations, and the number and category of vehicles;
- To give the information of fixing the fare rate to the Central Land Transport Control Board for approval;
- To stipulate bus standards, to supervise the quality of the transport operators' service to passengers, to control bus safety (speed, duration of parking and the age of the bus), and to control and examine the operation of the transport operators, crew and vehicles; and
- To encourage and develop a system of mass transit by bus.

Regulating the passenger transport market is done by licensing conditions and pricing.³

³ Fixed-route bus regulation in Thailand is implemented under Land Transport Act 1979 (BE2522) by having the Land Transport Policy Committee, Central Land Transport Control Board and Provincial Land Transport Control Board that have the authority to approve fixed-route buses. The Central Land Transport Control Board has the authority as follows: To stipulate the category of fixed-route bus; Fix the routes, the number of bus operators and the number of vehicles for fixed routes in Bangkok, between provinces and between economies; Fix the rates of transport charges and other service charges; Designate the sites, arrange for or set up and regulate the bus terminal; Specify the types or conditions of vehicles not acceptable for registration; Prescribe the classes or categories of vehicles which must stop or park for picking up and setting down the passengers or for loading and unloading goods at the bus terminal; To stipulate places for parking to pick up passengers; Lay down measures for prescribing, permitting and controlling transport business; Carry on other actions as provided in the Act and according to the regulations of the Land Transport Policy Committee. The Provincial Land Transport Control Board has the authority to: Fix bus routes, the number of transport operators and the number of vehicles in the provincial area; Fix the rates of transport charge in the provincial area (the same criteria as prescribed by the Central Land Transport Control Board); Carry out other actions as provided in the land transport regulation according to the Land Transport Policy Committee and the Central Land Transport Control Board.

Table 12.4: The operations of passenger bus transport services by government and private sectors.

Bus route category	Government and private operations	Maximum private equity permitted
Category 1 in Bangkok Has contiguous routes in the perimeter area by running on the main road in the community area which is crowded by people, business centre, school and university, government agency etc.	The BMTA has 89% (321 route licences) and allows private sub-contractors. The Premier Metro Bus Company operates 10% (35 routes). The Thonburi Bus Service Company Ltd 1% (4 routes)	The BMTA has the government's share (51%); the private share is (49%). The other two firms are 100% private equity.
Category 1 in provincial areas	Many private firms operate in the market under the licensing system.	100% private equity is permitted.
Category 2 Routes link Bangkok and the provinces.	The Transport Company Ltd has all licences and allows private sub-contractors.	The Transport Company Ltd has the government's share (51%); the private share is (49%).
Category 3 Interprovincial routes which link one province with another and may pass through other provinces	Many private firms operate in the market under the licensing system.	100% private equity is permitted.
Category 4 in Bangkok Route mainly on subordinate roads and the feeder roads to the main road to link with Category 1 in Bangkok	The BMTA operates 76% (113 routes) and allows private sub-contractors. Private firms operate 24% (36 routes).	100% private equity is permitted.
Category 4 in provincial areas Services the community (village, district and city) in the provinces.	Many private firms operate in the market under the licensing system.	100% private equity is permitted.

Source: TDRI 2010b.

12.3.1.1 Route licensing

Bus Route Category 1 in the provincial area is open for private company operation. Generally, the licence for a fixed route is THB7000 (USD217) and is valid for 7 years; for a non-fixed route it is valid for 5 years.⁴ There is a 'one licence per one route' policy. Thus, each route is monopolised in the sense that once the operator is licensed to operate a route for 7 years, the licence will be renewed as long as the firm complies with the DLT's conditions. However, there is considerable competition for new route licences through a tendering procedure; a firm is able to apply for a licence to provide service for a fixed term. The firm that receives a licence usually will not operate the whole fleet but will sub-contract some of its operations to other operators without competitive tendering. Routes compete with each other (and some licences have a duplicated route section), which reduces the incentive for dynamic efficiency, introducing new technology or improving services to increase profit.

The situation is different in Bangkok where only three companies have licences for the 360 routes of Bus Route Category 1. The BMTA is entitled to operate 321 routes, the Premier Metro Bus Company Ltd has 35 concessional routes and the Thonburi Bus Service Company Ltd is the airport express bus service provider with four downtown routes.

The Transport Company Ltd, a government-owned enterprise, is entitled to provide services for all Category 2 routes, and private companies are allowed to be sub-contract operators of the Transport Company. BMTA can also sub-contract its routes to private operators. The

⁴ A non-fixed route bus is a 'for hire' vehicle such as a taxi. The DLT only regulates the licence of drivers and vehicle standards. There is no regulation on entry to the taxi market.

companies collect a royalty fee which can be used to subsidise their loss-making routes. The royalty fee collected by the Transport Company is sufficient to subsidise its loss-making routes, which enables the government to maintain universal services. The royalty fee collected by the BMTA is inadequate for its loss-making operations: the sub-contractor pays the BMTA THB200–300/vehicle/day (USD6.2–9.2) and THB100–150/vehicle/day (USD3.06–4.60) for air-conditioned buses and non air-conditioned buses respectively. Therefore, the government has to subsidise the BMTA by loan guarantees (Table 12.5).

Table 12.5: Characteristics of the passenger transport industry.

Bus route category	Characteristics of competition
Category 1 in Bangkok	Concessions are granted to three operators. The government-owned BMTA is entitled to grant sub-contracts to private companies and collect the royalty fee. The passenger van is the new mode which serves the niche market.
Category 1 in provincial areas	'One licence per one route' policy is implemented. The firms which receive the licence are able to sub-contract to small-scale operators. The market is highly competitive between overlapping route operators.
Category 2	Only the government-owned Transport Company Ltd is entitled to provide services for all routes, to sub-contract to private companies and to collect the royalty fee. The passenger van is the new mode which serves the niche market.
Category 3	'One licence per one route' policy is implemented, which is a monopoly. The firms which receive the licence are able to sub-contract to small-scale operators. The market is highly competitive between overlapping route operators. The passenger van is the new competitor in this category.
Category 4 in Bangkok	'One licence per one route' policy is implemented, which is a monopoly. The firms which receive the licence are able to sub-contract to small-scale operators. The market is highly competitive between overlapping route operators.
Category 4 in provincial areas	'One licence per one route' policy is implemented. The firms which receive the licence are able to sub-contract to small-scale operators. The market is highly competitive between overlapping route operators. The passenger van is the new mode which serves the niche market.

Under this licensing and sub-contracting system, there are approximately 1256 companies (all but the BMTA and the Transport Company are private companies). The majority of the bus companies are small and family-owned firms: only 0.1% of the private companies have more than 50 buses, around 8% have between 2 and 48 buses, and around 92% own only 1 bus (National Statistical Office and TDRI survey). The BMTA and the Transport Company have the biggest market shares (21.02% and 13.77% respectively) followed by four private firms (Cherd Chai Motor 5.06%, Nakornchai Air 2.11%, Thep Sombat 1.74% and Bangkok Transport Company 1.29%). The market share of these six operators accounts for 45% of the sector. Other companies shared the rest of the market (Table 12.6).

12.3.1.2 Bus fare regulation

The public bus fare is regulated by the Land Transport Committee, the Land Transport Policy Committee, the Central Land Transport Control Board and the Provincial Land Transport Control Board (Table 12.7). Prices are based on a cost-plus formula, including a target rate of return and an allowance for an expected load factor. The fare rate (baht/km) is adjusted according to a change in the diesel price with 25 steps ranging between THB10.07 and THB40.57: for example, if the diesel price increases from THB28/L to THB30/L, the 17th fare rate (THB0.56/km) is used to multiply the actual operating vehicle kilometres to provide a new fare for travelling on that section. However, any increase in bus fares is a sensitive political issue in which the final decision is made by the Cabinet (Meakin 2005).

Table 12.6: Characteristics of the largest passenger transport firms in terms of revenue, 2007.

Firm	Year established	Government equity (%)	Domestic private equity (%)	Foreign equity (%)	Market share of total revenue (%)
Bangkok Mass Transit Authority ¹	1976	51	49	–	21.02
Transport Company Ltd	1930	51	49	–	13.77
Cherd Chai Motors Sales Company Ltd	1980	–	100	–	5.06
Nakornchai Air Company Ltd	1986	–	100	–	2.11
Thep Sombat Company Ltd	1978	–	100	–	1.74
Bangkok Transport Company Ltd	1984	–	100	–	1.29
Others (1250 registered firms)					55

Source: Based on Department of Business Development 2010 and survey data by TDRI (accessed on 2 March 2010).

¹ The Bangkok Mass Transit Authority was established by Royal Decree BE2519 in August 1976.

Table 12.7: Public bus pricing.

Bus route category	Pricing
Category 1 in Bangkok Category 4 in Bangkok	The Central Land Transport Control Board regulates the price based on the calculation of the cost/person/trip plus a 15% margin (excluding labour and fuel costs) and fluctuates according to the oil price.
Category 1 in provincial areas Category 4 in provincial areas	The Provincial Land Transport Control Board regulates the price based on the guidelines set by the Central Land Transport Control Board. The price differentiation depends on the cost of operation in each province. The calculation of margin is based on Minimum Retail Rate (MRR) plus 5% (i.e., MRR =13 +5, margin =18%). Price adjustment is used to cope with the oil price fluctuation and is tabulated in 25 steps. Yet the real price adjustment is subject to negotiation between the DLT and bus operators rather than being adjusted automatically.
Category 2 Category 3	The Central Land Transport Control Board regulates the price adjustment according to the fuel price. The price differentiation depends on the cost of operation in each province. The calculation of margin is based on MRR plus 5% (i.e., MRR =13 +5, margin =18%). Price adjustment is used to cope with the oil price fluctuation and is tabulated in 25 steps. Yet the real price adjustment is subject to negotiation between the DLT and bus operators rather than being adjusted automatically.

Source: TDRI 2010b.

The bus fare calculation is based on the assumptions of a maximum of 7 years of vehicle use and a 70–90% load factor depending on the bus standard. In fact, this cost plus pricing does not take into account the addition to capacity and changes in load factor due to the issuing of new licences and the entry of passenger vans (see below). Therefore, regulated bus operations generally have a lower load factor and thus a lower margin of profit than the DLT's assumptions. The bus operators, therefore, have less incentive to invest in their services and the fare regulation process contributes to falling quality. Not only does quality suffer, but maintenance and replacement do also. Nor can prices respond to demand shifts in the market: as the population increases, the gap between the quantity supplied and that demanded at the regulated price widens. This provides an incentive for the growth of an unregulated or 'illegal' sector (see below).

12.3.1.3 Van transport

Public bus provision was unable to meet the demand for bus services in suburban residential areas. The BMTA could not provide adequate convenient and comfortable services for those commuters who travelled from suburbs to work in the city. Leopairojna and Hanaoka (2006) explain that passenger van services were started by investors who saw benefits in responding to the needs of commuters in suburban Bangkok. The number of vans grew steadily from the mid 1980s to 1996. However, these vans operated outside the regulatory system and were technically illegal. In 1984 the DLT promulgated that operating vans as bus-like services was illegal, and the Ministry of Transport had a policy to eliminate the van services in 1986.

Van operators can charge fares that cover their costs. These fares are usually higher than those of the regulated companies (see below). They also offer a different service quality (Table 12.8). Illegal vans provide alternative services on the profit-making routes. They offer shorter, faster routes with guaranteed seats and a door-to-door service. They are supposed to operate between passenger van terminals (in housing estates, markets or community centres) and they are not supposed to pick up passengers at bus stops (although in practice they do so). Although passenger van operations cause lower revenues for the normal bus services and the drivers were often criticised as reckless and undisciplined, they can bridge the gap between the lack of public air-conditioned buses and the increasing demands of Bangkok-vicinity commuters. Leopairojna and Hanaoka (2006) found that passengers who travelled by van valued the shorter travel times and comfort from a guaranteed seat. The downsides according to those who travelled by bus were the narrower space and the higher fares.

Table 12.8: Advantages of vans over buses by category.

Bus route category	Advantages of vans over buses
<p>Category 1 in Bangkok Has contiguous routes in the perimeter area by running on the main road in the community area which is crowded by people, business centre, school and university, government agency etc.</p>	<p>Passenger vans have to pick up passengers only at origins and drop off them at bus stops along routes or at destinations. In fact, they undercut the bus operators since they operate on more profitable route (cutting routes), pick up and drop off passenger at the bus stops, residential areas, markets, community (more like a door-to-door service).</p>
<p>Category 2 Routes link Bangkok and the provinces.</p> <p>Category 3 Interprovincial routes which link one province with another and may pass through other provinces.</p>	<p>Buses of the Transport Company Ltd and its sub-contractors are required to pick up passengers at official bus terminals (only one or few terminals in a province). However, passenger van terminals are usually located in residential areas (in housing estates, markets or community centres) which are not proclaimed officially. They also provide door-to-door service by charging extra, which is actually prohibited.</p>

Leopairojna and Hanaoka (2006) also report average trip lengths for the vans were less than for buses. They say that the gap between van fares and bus fares increased with trip length. Bus fares tend to be flatter over long distances, so competition from vans on shorter routes undermined the ability of buses to cross-subsidise longer routes (to cater for low-income households living further from the city centre) from shorter ones. The study reports that the incumbent operators such as BMTA and its sub-contractors complained to the DLT. They identify research that showed a link between these complaints and the new policy on vans introduced in 1999. At that time, only BMTA was granted licences to operate passenger van services, but it was able to sub-contract this work to van drivers. The licences were allocated on the existing routes of the vans between important locations in the city and suburbs with distances of 8–56km. The services had to comply with DLT standards, have insurance for

passengers and pay fees to BMTA. Maximum fares were also regulated. The quota of legal vans was set according to the number of van drivers who applied for a BMTA sub-contract and then was adjusted according to passenger demand. The van service was established originally by investors who constructed the van terminals and set up the services. Establishing the terminals required the ‘support from influential figures (who were) paid ... in return’ (Leopairojna & Hanaoka 2006, p. 6). According to some passenger van operators, the drivers made an unofficial payment to the police who enforce the transport laws. The van drivers also had to be ‘members’ of the terminals for which they paid a membership fee. They report that in 1998 these fees were THB100 000 for entry and THB4000/month. After the vans were legalised the fees rose to THB250 000 and THB5000/month. This may reflect the expectation that the legalisation process might actually make it more difficult to enter the market.

Although the van fare in the Bangkok Metropolitan Region is more expensive than for the air-conditioned buses (Table 12.9), the number of legal vans has increased from a few hundred in 1995 to 5555 in 2004 and 6582 in 2008 (Table 12.10). However, illegal vans continue to operate. They do not have to comply with the DLT’s conditions and can operate on disallowed (profit-making) routes in peak hour, for example. Furthermore, they can charge more for offering extra services such as door-to-door and dropping passengers off in small Soi (lanes). Economies in vehicle size in passenger transport are also argued to be not significant (Gwilliam 2008). Leopairojna and Hanaoka (2006) report that a Senatorial Subcommittee found there were 8000–9000 vans in Bangkok in 2001.

Table 12.9: Characteristics of urban public transport modes in the Bangkok Metropolitan Region (Bus Route Category 1), September 2008.

Transport mode	Fare (THB/ride)
1. Non air-conditioned bus	7
2. Air-conditioned bus	Regular Bus: 11–19 Euro I and Euro II: 12–24
3. Micro bus	20–40
4. Mini bus (Non air-conditioned)	6.50
5. Van (legal)	10–45

Source: Department of Land Transport, Land Transport Promotion Center 2010.

Table 12.10: The number of passenger vans in the Bangkok Metropolitan Region (Bus Route Category 1).

Year	Before legalisation	After legalisation		
	1995	1999–2002	2004	2008 ³
Quota Limit	n.a.	4,789–8,505 (115 routes)	3,964–5,574 (144 routes)	6,950 (127 routes)
Legal Vans ¹	Approx. 300	5,566	5,555	6,582
Illegal Vans ²		unknown	3,690	unknown

Source: ¹Leopairojna & Hanaoka 2006; ²APEIS 2004; ³Bangkok Mass Transit Authority 2010.

In 2009 the DLT legalised another 6400 passenger vans to provide services on 60 routes from Bangkok to other provinces (Bus Route Category 2). According to the DLT regulation, Van Route Categories 2 and 3 offer the same price as normal air-conditioned buses for the same section. However, passengers are willing to pay extra because the vans’ smaller size means they can provide a door-to-door service. Vans have pick up/drop off points in city centres while the large buses (Bus Route Categories 2 and 3) must stop at the regulated bus terminals.

The legalisation of passenger vans is a good lesson in basing regulatory reform on market-driven demand. Since the existing regulation did not meet the demand of the market, there was a gap between the demand and the legal bus services (supply). This gap has been filled by the

entry of illegal vans to the market. The DLT, therefore, has a policy to legalise illegal vans' operation. However, a large number of vans apparently continue to operate illegally which affects the number of passengers on a legal route, particularly air-conditioned bus routes, and the ability of the bus system to meet its service obligations.

12.3.2 Freight transport

Truck transport dominates the freight transport industry in Thailand. More than 80% of freight is transported by trucks, with 2% of cargo moved by rail (427.5 and 11.5 million tonnes out of the total freight quantity of 507.7 million tonnes respectively). The rest is split among inland waterway, coastal and air transport (Figures 12.1–2). At present Thailand's freight transport services exhibit some undue inefficiencies, including aged fleets of trucks with low load limits and low fuel efficiency, low penetration of multi-modal logistics providers, limited capital for new investment by small firms and limited use of Electronic Data Interchange for facilitating shipment and delivery and supply chain management (World Bank and NESDB 2009).

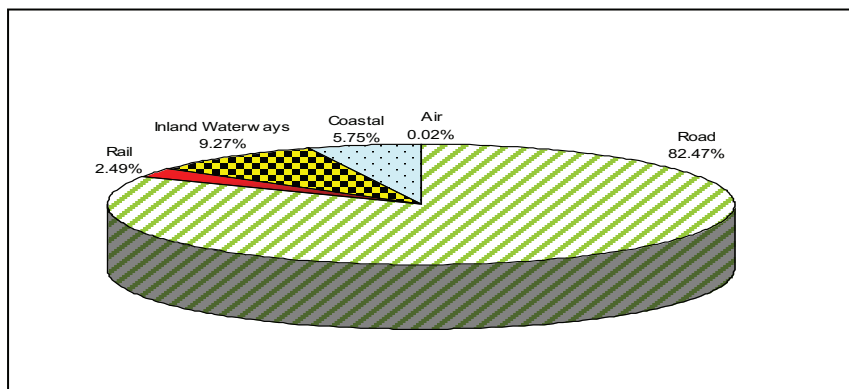


Figure 12.1: The modal share in freight transport in 2008 (tonne). (Source: Ministry of Transport 2010)

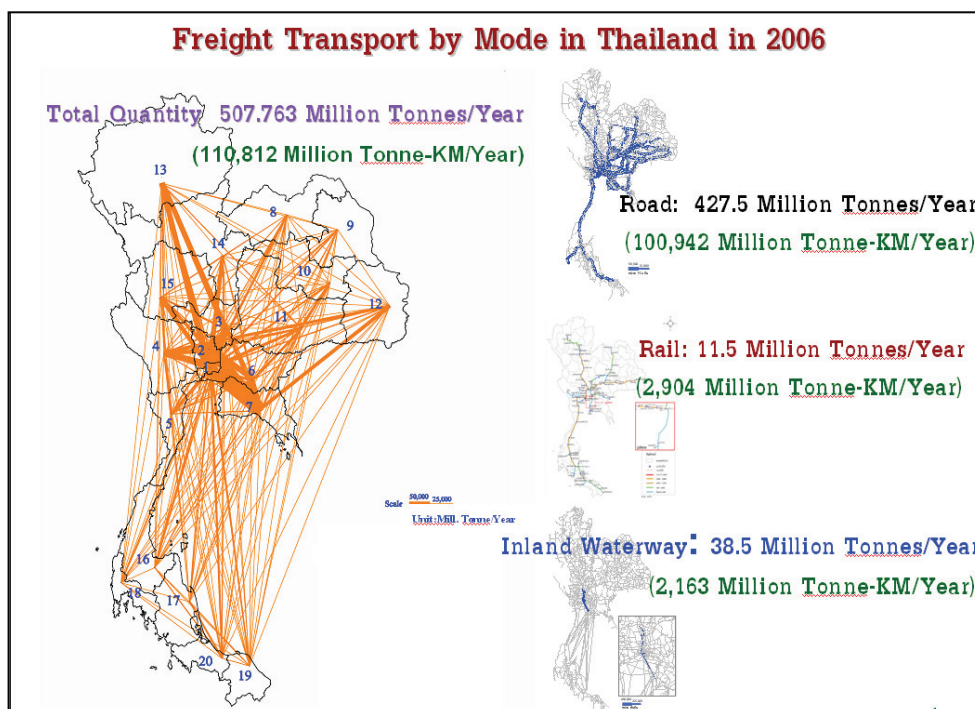


Figure 12.2: Freight transport split by mode, 2006. (Source: Ministry of Transport 2010)

Freight transport is a free competitive market without price regulation. The DLT only regulates vehicle standards through licensing conditions, with very simple requirements. The licence for a fixed route costs THB2500 (USD77.4) and is valid for 5 years. A new domestic entrant must present the Contract of Carriage and vehicles must comply with the DLT standard.

In the past the Express Transportation Organization of Thailand (ETO), a government enterprise, was the largest freight firm with the largest transport network and the most extensive route coverage. Private firms used the ETO price as the reference and adjusted their price according to the ETO price fluctuation. However, the ETO was closed down in 2006 due to its inefficient operation and the financial burden it created.

Private ownership in the provision of services is allowed for 100% of private equity. Foreign firms are allowed up to 49% of equity for passenger transport firms but must be registered under Thai laws according to the Foreign Business Act AD 1999.

In terms of the market share, SCG Logistics and Thai Beverage Recycle, who are own account operators, are now top of the freight transport market share. The former is ranked in the high revenue group while the latter is in the upper middle revenue group. In the lower middle revenue group are NYK Logistics, SSO Transport Company, Hatyai Kor-Chaisang and Linfox Transport. The majority of truck companies are small to medium firms which are in the low revenue group (Table 12.11).

Table 12.11: Characteristics of the six largest freight transport firms in terms of revenue, 2007.

Firm	Year established	Government equity (%)	Domestic private equity (%)	Foreign equity (%)	Market size of total revenue (%)
SCG Logistics Management Company Ltd	1990	–	100	–	High revenue
Thai Beverage Recycle Company Ltd	1986	–	100	–	Upper middle revenue
NYK Logistics Thailand Company Ltd	1969	–	61.84	38.16	Lower middle revenue
S.S.O. Transport Company Ltd	1989	–	100	–	
Hatyai Kor-Chaisang Partnership Ltd	1984	–	100	–	
Linfox Transport (Thailand) Company Ltd	1993	–	100	–	
Other 3807 operators					Low revenue

Source: Calculated on Department of Business Development 2010 and survey data by TDRI (accessed on 2 March 2010).

Note: Due to data limitations, the market size of truck operators cannot be calculated exactly. However, we grouped the truck operators with respect to the revenue into four intervals based on the Bank of Thailand exchange rate of 2007: low revenue, < USD57.8 million; lower middle revenue, USD57.8–115.7 million; upper middle revenue, USD115.7–173.5 million; high revenue, > USD231.4 million.

Based on DLT data, there were 3668 truck transport operators and truck rental operators in 2007. The total number of trucks then registered for transport companies was 135 996 while the number of privately owned trucks was 611 739 (DLT 2009). Besides, there were 3813 registered road freight transport operators based on Department of Business Development (2010) data. The majority of the truck operations are not cost-efficient since there is a high cost per kilometre and economy of scale is lacking.

The freight transport industry in Thailand has also been affected by the liberalisation of retail trade services in 1997. The modern trade businesses have dominated the domestic consumer goods freight by using efficient supply chain management and sub-contracting the transport function to a local haulage company. Being transport operators only, Thai freight firms gain a small profit margin and cannot develop their capacity to compete in the logistics and supply chain management market.

The road freight transport market by truck is highly competitive among small operators. Competition forces operators to carry overweight loads and, without incentives to do otherwise, use older and polluting truck fleets. This leads to the abrasion of roads, air pollution and a high accident rate. One response has been for the DLT and police to enforce the regulations on vehicle standards strictly. It is also important that road pricing reflect the externalities involved in road transport. Without that pricing, road transport would be greater and freight would be diverted from rail and inland waterways (when for some types of cargo those options would be more productive in terms of the use of fuel).

Road pricing is also debated in the context of the liberalisation of cross-border road transport. The absence of charges for access and externalities allows foreign vehicles to use the national road infrastructure free of charge while the cost is subsidised by taxpayers.

12.3.3. International road transport

Apart from the development of the domestic road transport network, globalisation has brought a demand for goods and services that requires improved infrastructure and more efficient transport systems as a precondition for economic development. Thailand, which has paid attention to the inter-city road transport linkages with neighbouring economies and sub-regional groups, recently has signed several agreements to facilitate cooperation in the road transport sector.

Currently, international road transport service is not open to competition. Cross-border transport between Thailand and neighbouring economies is allowed only between border cities (i.e., up to 7km from the borders). Cross-border transport must be operated under a bilateral agreement; for example, Thailand–Malaysia and Thailand–Lao (Box 12.1) or multilateral agreements such as the ASEAN Economic Cooperation Agreement and the ADB-Greater Mekong Sub-region Economic Cooperation Program (see below). The government regulates the international haulage by having an international haulage licence quota (except the cross-border transport between Thailand–Lao PDR; see Section 12.4.2). The operators are selected and approved by DLT: under section 25 of the Land Transport Act AD 1979 the operators carry out the transport under the bilateral and multilateral international road transport agreements between Thailand and neighbouring economies.

Under these agreements an international road transport operator must be a Thai juristic person, whose head office must be located in Thai territory,. Foreigners are allowed to have equity participation of no more than 49%. International road transport under the Land Transport Act BE2522 (1979) is categorised as:

- Fixed Route and Non-Fixed Route International Road Transport Services – the providers must be either a limited company, a limited public company or a Thai government organisation; and
- Private International Road Transport Services (Commercial) – the providers must be either a registered ordinary partnership, a limited company or a limited public company.

The international road transport service providers must have been domestic road transport service providers beforehand. The licence fee of THB2500 (USD77.4) is for a 5-year period.

Box 12.1: Bilateral agreements on road freight transport services.

- *Thailand–Malaysia*: Memorandum of Understanding (MoU) between Thailand and Malaysia on the Movement in Transit of Perishable Goods by Road from Thailand through Malaysia to Singapore 1979. Under this bilateral agreement cross-border transport is allowed only for perishable goods from Thailand to Singapore, travelling through Malaysia. It also has an annual quantitative limitation of goods as well as a specific transport route. The cross-border road transport service between Thailand and Malaysia is an oligopoly in which there are currently three transport operators under this agreement.
- *Thailand–Lao PDR*: MoU between the Government of the Kingdom of Thailand and the Government of Malaysia, Agreement Between the Government of the Kingdom Thailand and the Government of the Lao People’s Democratic Republic on Road Transport, 1999 and Subsidiary Agreement Specifying Road Transport Arrangement between the Government of Thailand and the Government of the Lao PDR, 2001.

This bilateral agreement is the first liberalisation of international road transport services. The background of the liberalisation is:

1978–90: cross-border transport between Thailand and Lao PDR was a monopoly under the ETO.

1991: The ETO had its licences terminated because Lao PDR appealed its expensive service fee. Cabinet approved the joint venture firm of Thailand and Lao PDR, named T.L. Enterprise, and it became the monopoly transport operator.

1992: Ministry of Transport opened the market for competition since there were many complaints about the monopoly of T.L. Enterprise. In this year, there were five transport operators.

2004: Lao PDR and Thailand agree to open the free market of cross-border transport of both passengers (non-fixed route) and freight without quota limitation since previously the transport costs were very high.

Source: Department of Land Transport, Land Transport Promotion Center 2010.

12.3.3.1 Thailand–Lao PDR

Cross-border transport between Thailand and Lao PDR was liberalised under a bilateral agreement. After liberalisation in 2004 the number of international freight transport operators increased from two (only Thailand–Malaysia transport operators) to 123 (including Thailand–Lao PDR transport operators) (Table 12.12).

Table 12.12: The number of international transport operating licences issued per year, 2000–07.

International Licence	Year							
	2000	2001	2002	2003	2004	2005	2006	2007
Bus	–	–	–	–	13	25	7	15
Truck	3	2	2	2	123	63	51	75

Source: Department of Land Transport, Land Transport Promotion Center 2010.

Cross-border transport between Thailand and Lao PDR is highly competitive among domestic operators (226 international truck licences and 57 international non-fixed route bus licences have been issued) (Table 12.13). In comparison, international freight transport between Thailand and Malaysia is an oligopoly as it has a quota limitation and only allows the transport of perishable goods from Thailand to Singapore through Malaysia. Banomyong (n.d.) reports that as a result of the agreement, freight rates fell by 20–30% between Vientiane and Thai ports. Banomyong points out some logistical constraints on the agreement’s impact on routes other than between the major points. One of these is the report by Thai operators that Lao authorities continue to insist that some Thai trucks be reloaded on to Lao trucks at the border. Also, partnership operators may have difficulty in meeting the legal requirements of the agreement (which refers to ‘juristic persons’).

Table 12.13: The number of international transport operating licences for 2007.

International licence	Total no. of licences	Total no. of vehicles
Non-Fixed Route Bus	57	177
Fixed Route Bus	2	–
Non-Fixed Route Truck (Transport Operators)	229	8,979
Thailand–Malaysia (only perishable goods)	3	79
Thailand–Lao PDR	226	8,900
Private Transport (Own Account)		
Truck (Thailand–Lao PDR)	84	861

Source: Department of Land Transport, Land Transport Promotion Center 2010.

The operation of a cross-border non-fixed or chartered route bus was also liberalised between Thailand and Lao PDR. However, the fixed route international bus between Thailand and Lao PDR is a monopoly run by Transport Company Ltd (Thailand), a government-owned enterprise of Thailand, and the government-owned Bus Enterprise of Laos. Currently, there are five fixed routes of international transport between Thailand and Lao PDR: Nongkhai–Vientiane, Udonthani–Nongkhai–Vientiane, Ubonratchathaini–Pakse, Vientiane–Khon Kaen and Savannakhet–Mukdahan. Fares are difficult to compare between bus routes because of the differences in service quality, but the entry of chartered buses provides consumers with more options.

12.4 MULTILATERAL AGREEMENTS

Multilateral agreements are also important for the structure of the road transport markets.

12.4.1 ASEAN Framework Agreement on Services

ASEAN started its services liberalisation project with the ASEAN Framework Agreement on Services (AFAS). The liberalisation of international road freight transport service is expected to be achieved by 2015. ASEAN nationals will be allowed an equity participation of no less than 49% by 2008, 51% by 2010 and 70% by 2013. AFAS also includes customs facilitation for transit goods which will be exempt from customs formalities procedures. The transport facilitation will allow 500 vehicles in each member economy to operate cross-border transport⁵, develop multimodal transport and facilitate trade to allow the door-to-door delivery of goods. This will reduce logistics, time and cost, harmonise road transport laws to facilitate movement across land borders and support the regional supply chain and logistics network.

12.4.2 ADB–Greater Mekong Sub-region Economic Cooperation Program

The Greater Mekong Sub-region (GMS) regional economic cooperation framework was formulated in 1992 and funded by the ADB with the aim of facilitating efficient freight and passenger cross border transport, which will improve intra-regional market access for GMS products and trade competitiveness. The GMS program covers nine sectors – agriculture, energy, environment, telecommunications, human resource development, investment, tourism, trade and private sector development, with the priority being on the transport sector (JICA 2007). The coverage is on international road transport, specifically the multimodal transport related to the roads covering six member economies, namely Cambodia; southern China; Lao PDR;

⁵ In January 2009 the Thai Parliament approved the ASEAN Framework Agreement on Facilitation of Inter-State Transport. (Source: Office of Transport and Traffic Policy and Planning)

Myanmar; Thailand; and Viet Nam. Each member economy is entitled to 500 GMS transport permits for cargo transport and non-scheduled passenger transport: the permit quota is divided into 400 for commercial trucks and 100 for buses. Member economies will allow foreign vehicles granted the 'GMS transport permit' by the contracting economy to enter the economy on designated routes. GMS members will also consider the transition from quota limitations to a free market system in the future.

Several flagship infrastructure projects were identified, and three 'Economic Corridors' – the North–South Economic Corridor (NSEC; covering southern China–Lao PDR–Myanmar–Thailand), the East–West Economic Corridor (EWEC; covering Myanmar–Thailand–Lao PDR–Viet Nam), and the Southern Economic Corridor (SEC; covering Thailand–Cambodia–Viet Nam) were prioritised in the GMS transport sector development plan. Other corridors identified in the initial framework were: Western (Tamu–Mawlamyine); Eastern (Kunming–Ho Chi Minh City and Nanning–Bangkok/Laem Chabang), Central (Kunming–Sihanoukville/Satthaip) and Southern Coastal (Bangkok–Namcan).

The time and cost reduction on transport from Bangkok–Danang Port demonstrates the Economic Corridors' performance. There has been a significant improvement through the infrastructure investment, particularly the Second Mekong International Bridge and cross border formalities facilitation agreement. These initiatives led to drastic reductions in the logistics cost and time (Figure 12.3). The overall transport cost fell from approximately USD3000 to USD2070 and the transport time improved by almost 13 hours (from 40 hours 40 minutes in 2000 to 28 hours in 2007).

The prospective significant reduction in logistics time and costs in these economic corridors will benefit the transport of perishable goods in particular, as 'time' is the most crucial factor for the traders' ability to ensure quality control. The GMS economic corridor development will enable Thailand to export fruit to China within 4 days. This will leave more days to distribute fresher and higher quality fruit in that nation (Box 12.2).

Furthermore, a GMS infrastructure improvement project, the Second Mekong International Bridge as the link of EWEC, has had a considerable impact on the increase in trade value between Thailand and Lao PDR (Box 12.3).

The GMS agreement also covers the removal of non-physical barriers to the cross-border movement of people, vehicles and goods such as facilitating border crossing formalities and exchange of traffic rights through a GMS Cross-Border Transport Agreement. There are 17 Annexes and 3 Protocols which allow flexibility for ratification by economies: all member economies have ratified the Annexes and Protocols except Thailand, which has not ratified Annexes 1, 4, 6, 7, 8, 9, 10 and 14 and Protocol 3, and Myanmar which has not ratified any of the Annexes and Protocols. In liberalising international road transport, the agreement allows the admission of foreign vehicles registered in member economies for those who satisfy the technical requirements (e.g., weight limit and vehicle length). The implementation is divided into two phases. The first phase is committed to the reciprocal recognition of foreign vehicles by the quota limitation: the 500 permits that can be issued are subject to limits on frequency, capacity and the number of transport operators. The second phase will open a free market system without any restrictions. The governments of the contracting parties are authorised to regulate the safety and weight limit of vehicles while the pricing of cross-border transport will be determined by market forces. The government is entitled to regulate the market domination under the supervision of the Joint Committee.

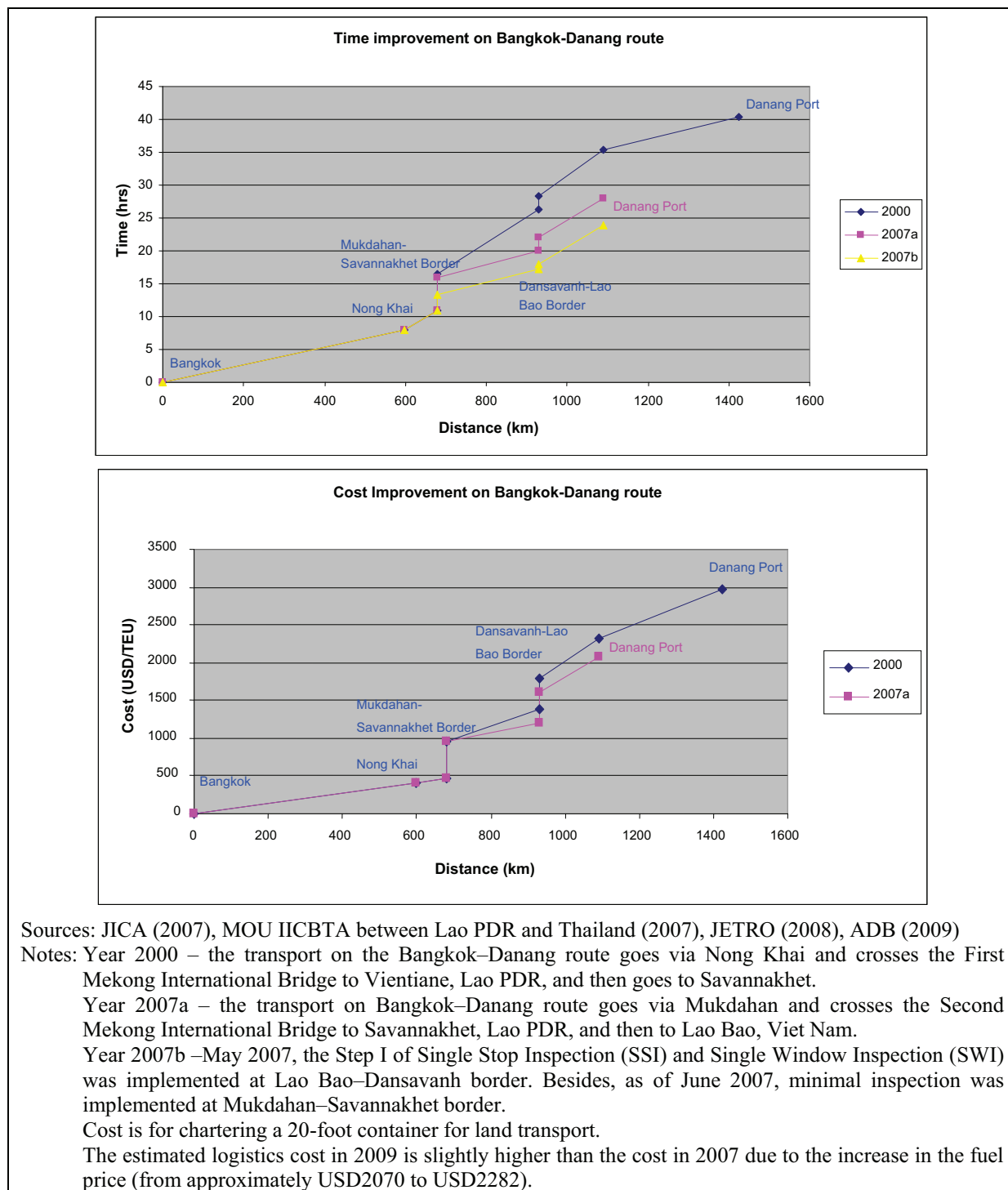
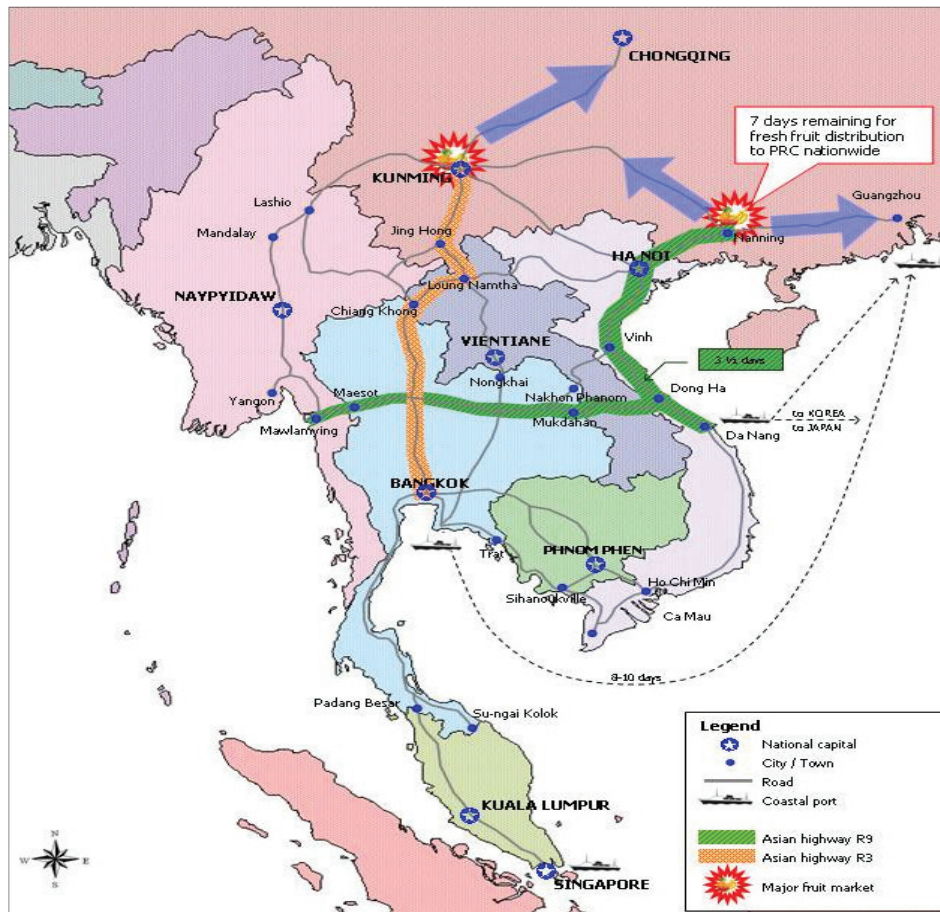


Figure 12.3: Time and cost improvement on the Bangkok–Danang route.

One major breakthrough is the trial of the Customs Transit System and Exchange of Traffic Rights among Thailand, Lao PDR and Viet Nam which allows registered trucks in these economies to go through foreign territory on the R9 route from Mukdahan Province in Thailand to Savannakhet (Lao PDR), and then to Lao Bao, Dong Ha and Danang Port in Viet Nam. The trial of the ‘go-through’ trucks was initiated on 11 June 2009 and 400 trucks of 12 Thai truck operators were issued GMS road transport permits by the Board of Trade of Thailand. Despite this trial, the cross-border transport under the Initial Implementation of the Cross-Border Transport Agreement has not genuinely taken place: there were problems relating to the Customs Transit System with the guaranteeing organisation and the transit fee

Box 12.2: Benefits from the GMS Economic Corridors development.

Under GMS economic cooperation, Thailand can exploit the benefit from routes R3 and R12 which are the effective and efficient transport routes from Thailand to China. These routes will reduce logistics cost and time and allow more days to distribute the goods within China. The transport from Thailand to China normally uses sea freight from Laem Chabang Port to Guang Zhou Port, which takes around 8–10 days and leaves only a few days to distribute the goods. However, with R3 routes on the NSEC, it will take only 3 days to transport fresh fruit from plantation areas through northern Thailand and Lao PDR to arrive in Kunming, Sichuan and Chongqing. More importantly, it will then have 7 days to distribute the goods in China. Additionally, routes R9 and R12 on the EWEC will shorten the period to transport fresh fruit from plantation areas in Thailand to Nanning in China via Lao PDR and Viet Nam to 3–4 days.



that needed agreement among member economies. Cross-border transport from Thailand to southern China (NSEC) and from Thailand to Viet Nam through Lao PDR (EWEC), still requires cargo transshipment at the Lao PDR border since Thai trucks are only allowed to enter into Lao territory and not beyond.

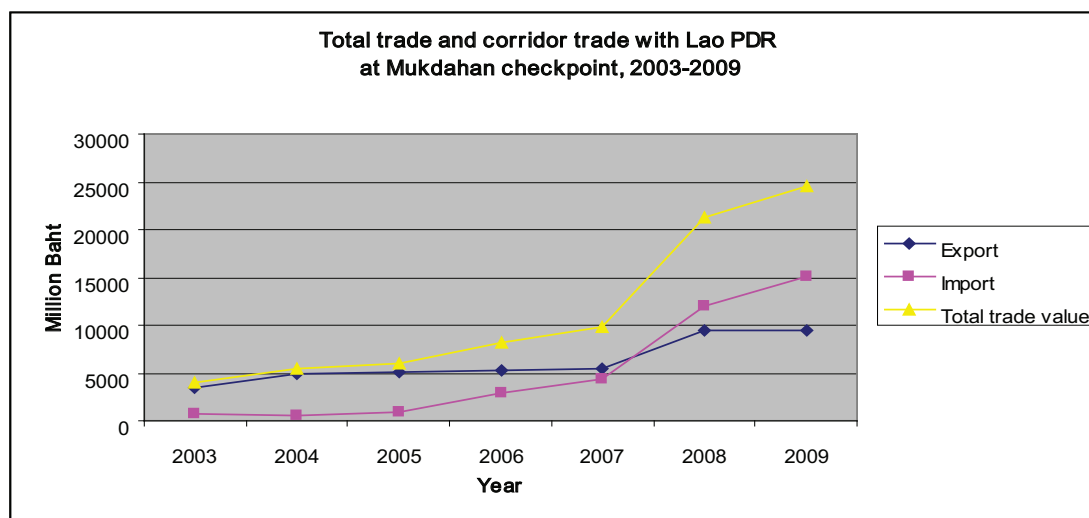
There are other barriers along the GMS Economic Corridors that hamper the efficient utilisation of the transport infrastructure. These constraints could derive from customs procedures, lack of supporting policy frameworks as well as human and institutional capacities which add to the stopping time at the borders. The price distortion as a result of unofficial payments also leads to the current high logistics cost.⁶

⁶ Based on an interview with a Thai operator, the freight cost on route R3A (Bangkok–Yunnan) is much higher than the actual cost. The operator has to pay THB60 000 (USD1860) for actual transport costs plus another THB120 000 (USD3721) for unidentified costs along the route.

Box 12.3 Impacts from the GMS East-West Economic Corridor, Mukdahan checkpoint.

The major consequence of infrastructure development project, a Second Mekong International Bridge, is the increase in trade value between Thailand and Lao PDR. The total trade value between Thailand and Lao PDR at the Mukdahan checkpoint has grown rapidly from THB4 billion in 2003 to THB24 billion in 2009. The export value has increased from THB3 billion in 2003 to THB9 billion in 2009 while the import value has significantly increased from THB665 million to THB15 billion. The average annual growth rate for the past 7 years of import value is 68.1% and of export value is 18.7%.

Notably, the Second Mekong International Bridge has resulted in a significant increase in the import of copper, wooden products and metal from Lao PDR. The bridge allowed the transport of heavy goods like wood and metal products through the Mukdahan checkpoint since it could not be transported by ferry.



Source: TDRI 2010a.

More importantly, the major problem of GMS is the unequal sharing of costs and benefits among member economies. In the case of transit economies like Lao PDR, the facilitation of cross-border transport means that the benefit goes to other economies while leaving the costs of road maintenance, infrastructure investment, and social and environmental impacts to the transit economy. To counteract such circumstances, Lao PDR might resort to the strategy of assembling the traffic in its territory with little incentive to expedite customs, immigration and quarantine inspection processes. If this is the case, unfortunately it will be counterproductive. Given that there is more time taken for customs formalities in Lao PDR at the Mukdahan–Savannakhet border, compared to Thailand, Lao PDR logistics providers will obtain more than the road usage fee (Figure 12.4).⁷ This, in turn, would hinder rather than facilitate trade flow (of both passengers and freight) among the member economies. Furthermore, neighbouring economies could also give financial aid for infrastructure investment and maintenance cost to Lao PDR by allowing transit fee collection to relieve the burdens of transit economy.

Although the regional transport agreement results in reduced transport cost along the corridors, there are informal stakeholders who must be included as crucial participants who could hamper the development of corridor efficiency. Corruption and informal payments are common along some of the borders. By harmonising the necessary requirements for engaging in cross-border trade, it will be more difficult for local government officials, customs workers

⁷ Based on the Time Release Study (2007), the Customs import procedure is: Mukdahan, 40 minutes and Savannakhet, 120 minutes; and the export procedure is Mukdahan 46 minutes and Savannakhet 90 minutes.

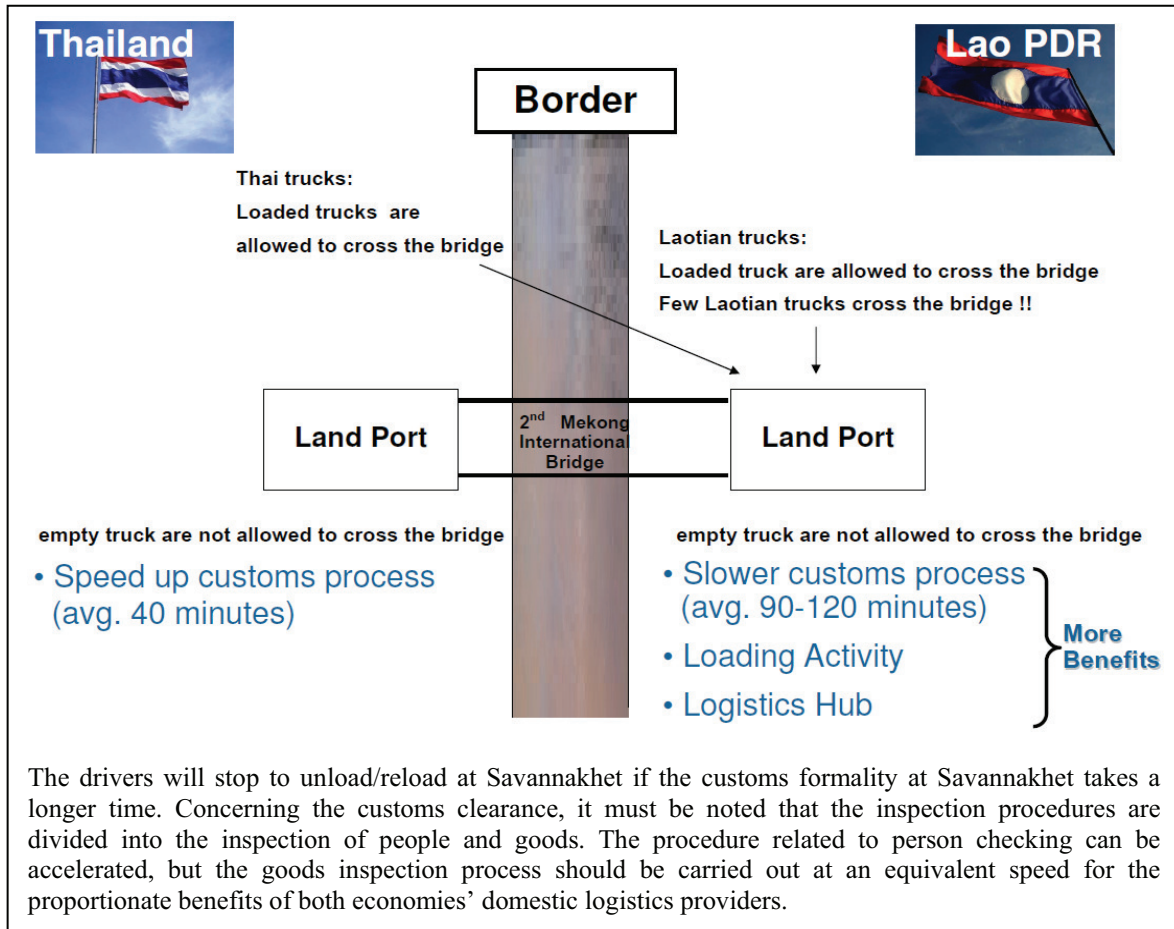


Figure 12.4: The problem of possible cross-border truck flow at Mukdahan–Savannakhet.

and others with authority to act corruptly. Meanwhile, the resistance to fully implementing the agreement is continuing. The practice of corruption leads to an unreasonably high transport cost, resulting in the imperfect competition of international transport and hampering new entrants into the market.

The regional liberalisation of road transport is the forthcoming scenario, namely 500 interstate transport permits for each member economy under the GMS agreement and another 500 permits under AFAS.⁸ These agreements will lead to further reductions in transport cost along the corridors. However, the cross-border transport requires mutual agreement among member economies on the clear definition of international haulage permission regarding service duration, frequency, periodicity and continuity. Otherwise it could result in disputes over cabotage transport which has a large impact on domestic providers. There is also a concern about negative impacts such as an increase in smuggling goods and illegal substances.

The liberalisation will allow foreign firms to invest in domestic transport businesses in the economies. However, foreign firms will have to offer some differentiated service, particularly with the use of standards and information and communications technology, if they are to compete. There are many competitors in the market already and foreign firms might not be able to compete with local firms which have advantages of geography (they are more familiar with the towns), rules, regulation familiarity and the requirements of the customers, especially local

⁸ In January 2009 Parliament approved this action under AFAS according to the Constitutional Law of Thailand, Article 190, Paragraph 2.

businesses). However, domestic operators could be affected by the entry of ‘brand name’ manufacturing firms which only hire local transport firms to operate their transport.

12.5 VALUE OF COORDINATION

Institutional barriers can arise through the agencies involved, as each has their own objectives and jurisdiction. The past implementation of road transport and land-use plans was carried out by five committees and 14 agencies under two ministries, the Ministry of Interior (MOI) and the Ministry of Transport (MOT) (Table 12.14). A review of institutional problems by the Office of the National Economic and Social Development Board, (NESDB 1991) noted the following issues:

- **Conflicting mega-projects:** As demonstrated by the intersections between elevated structures.
- **Duplication of capacity:** Enormous duplication of capacity is evident in the mega-projects, but there are other instances: for example, the Public Works Department and ETO that both appear to be planning a north–south road in Thonburi west of Middle Ring Road, on alignments close to each other.
- **Unbalanced road hierarchy:** An enormous expansion of main road capacity into the city centre is being planned, but there are no corresponding plans to expand the collection/distribution network.

A key problem in overlapping agencies is the lack of effective coordination, consultation and control. Sometimes this is due to differences in the cultures of the agencies. The allocation of the budget is also important, since each agency expects to maintain its share of ‘the cake’.

It has been recognised since the Sixth Plan (1986–91) that there is an imbalance where the investment for road improvement occurs. There is a bias towards substantial projects, at the expense of needed supporting investment in secondary roads, including distributor and local roads. The absence of sufficient distributor and local roads had led to the development of ‘superblocks’ which are large tracts of uncoordinated urban development and vacant land parcels within, and following, the primary road corridors within which discontinuous narrow local roads provide access to individual housing developments. The problems of this form of development include:

Table 12.14: Implementing and planning agencies.

	Agency or committee	Reporting to
1.	Department of Land Transport	MOT
2.	Department of Highways	MOT
3.	Bangkok Mass Transit Authority	MOT
4.	The Transport Company Ltd	MOT
5.	Express Transportation Organization of Thailand	MOT
6.	Harbour Department	MOT
7.	Public Works Department	MOI
8.	Department of Town and Country Planning	MOI
9.	Accelerated Rural Development Department	MOI
10.	Expressway Authority of Thailand	MOI
11.	Office of the Committee for the Management of Road Traffic	MOI
12.	Bangkok Metropolitan Administration	MOI
13.	Traffic Police Division	MOI
14.	Department of Local Administration	MOI
15.	Bangkok Metropolitan Region Development Committee	Independent Agency
16.	Committee to Consider Construction of Elevated Roads over Canals	
17.	Committee for the Management of Road Traffic	MOI
18.	Land Transport Policy Committee	MOT
19.	Land Transport Control Board	MOT

- Excessive congestion on primary roads – in the absence of a good secondary (i.e., distributor) road network the primary roads must be used for local and long distance trips;
- Inconvenient and circuitous travel for private and public modes of transport attempting to access or egress developments within the superblock; and
- Large parcels of underutilised land with poor accessibility and high servicing costs (World Bank 2007).

However, policy reform began in 2002 through the Office of Transport and Traffic Policy and Planning (OTP) and the Ministry of Transport, with oversight by the Commission for the Management of Land Traffic. There are still problems of overlapping agencies; for example, the Departments of Highways and of Rural Roads are the two main agencies in the provision of roads, with responsibility for major highway and rural roads construction, respectively. Another overlapping operation is the expressway network systems that are operated by the Expressway Authority of Thailand with private sector participation. Finally, there is no single regulator that can set all transport-related prices and taxes so as to maximise social welfare throughout the system (Rietveld & Stough 2004).

12.6 CONCLUSION

The Thai case highlights a number of topical and widespread issues in road transport policy. In urban bus markets, for example, attempts to provide a universal service in a regulated environment have created incentives for entry in substitute but unregulated markets. Passengers have benefited from the wider options available. But this entry has challenged the capacity of the incumbents in the regulated markets to meet their service obligations. The response has been to widen the scope of regulation; however, a significant unregulated set of operators continues to exist. The significance of the impact of the growth of the unregulated sector is exaggerated in the absence of both pricing for traffic congestion and measures to capture other externalities associated with urban passenger transport systems.

The road transport industry involves externalities that may justify a certain degree of government intervention. A regulatory framework in road freight can contribute to public safety and reduce environmental impacts. An appropriate road pricing and vehicle taxation system to reflect the actual cost of the road freight industry is valuable. The value of including the costs of externalities will be even more significant once the cross-border transport market has been liberalised.

The liberalisation of cross-border transport facilitates intra-regional trade. Several agreements on cross-border transport facilitation allowing foreign vehicles to enter the economy will reduce logistics costs. But new issues will emerge, including the treatment of cabotage. Managing the infrastructure at border crossing points will be important for preventing the gains from lower transport costs being captured by the providers of those critical infrastructure services.

This study also highlights the value of coordinating policies for operations and for infrastructure with those for the environment. This coordination at government level will be difficult to obtain, not only because of the amount of information that has to be shared but also because of the nature of the agencies involved. The Thai government has begun a process of reorganisation to resolve these issues, but challenges remain.

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