Abstract: This paper reviews transport policy, implementation and its impact in Bangkok. Bangkok has not done any special measures in its transportation system. Many ambitious policies have been planned like the exclusive bus lane and the automatic location system for buses. However, they have only reached the experimental level and have not reached full implementation because of financial constraints and political conflicts. Only the ring road, expressway, overpass, underpass, truck ban, BTS and MRT have been successfully implemented.

Key Words: Transport Policy, Bangkok, Historical Review

1. INTRODUCTION

Transport system in Bangkok has been relying on a poorly planned road network. Roads are significantly insufficient relative to the city size and population. Existing access roads or sois (dead-end streets) are generally unplanned and narrow with poor connections to the road hierarchy. With these road conditions, Bangkok has established a worldwide reputation for traffic congestion (PADECO, 2000). Traffic congestion in Bangkok results to wasteful burning of fuel and contributes heavily to air pollution, both of which are adversely affecting people’s health and climate change. The conditions have been even more worsening since the recovery of Thailand’s economy after financial crisis. The Japan International Cooperation Agency (JICA) reported that in 1995 bus transit accounted for 48 percent of total trips in Bangkok while personal cars accounted for only 27 percent (JICA, 1997). However, according to the Office of Transport and Traffic Policy and Planning (OTP), by 2003 bus trips had dropped to 26 percent and personal car trips had increased to 35 percent of total trips (OTP, 2004). Thai government has made tremendous efforts to alleviate the traffic congestion, but the results are still far from desirable. This is because Bangkok has always focused on attempting to maintain private car travel speeds with virtually no consideration for public transport and environment. Sustainable development and active land-use control have never been an issue until recently (Rujopakarn, 2003). This study reviews the urban transport policy, implementation and its impact in Bangkok for covering as many aspects of transport system development as possible.

2. OVERVIEW OF CURRENT TRANSPORT IN BANGKOK

2.1 Increasing Vehicle

Bangkok Metropolitan Area (BMA), a capital of Thailand, is surrounded by five neighboring provinces. At the national level, this area is considered the core of the country and referred to as “Bangkok Metropolitan Region (BMR)”. At the end of 2004, BMA and BMR had
registered populations of around 5.63 million and 9.64 million respectively (DOPA, 2005). Average household incomes in BMA and BMR were 29,425 and 28,076 baht/month (NSO, 2003). Since BMR is the location where economic development is highest, it is attracting people from countrywide, and population and vehicle numbers are increasing. In conjunction with uncontrolled and unplanned land development, insufficient public transport and limited road space, this has led to the most serious problem in Bangkok - traffic congestion. Figure 1 presents comparisons between numbers of registered population and numbers of total and new registered vehicles in Bangkok during 1993-2004. In 2004, numbers of registered population dropped due to a revision of household records. Total registered vehicles increased from 1.83 million in 1993 to 6.14 million in 2004 (DLT, 2005). A reduction in newly registered vehicles occurred during 1996 to 1998 due to the financial crisis in late 1997. When the economy recovered during 1999 to 2004, newly registered vehicles resumed their upward trend. Travel conditions were poor with an average speed of 15 kph in the inner area of Bangkok, 18 kph in BMA, and 21 kph in BMR (OTP, 2004). To alleviate traffic congestion problems, the government is attempting to reduce the usage of private vehicles by improving public transport systems, especially the rail transit systems.

![Figure 1 Registered Population and Vehicles in Bangkok (DLT, 2005)](image)

2.2 Public Transport

Bangkok is situated on the banks of the Chao Phraya River into which feed the city’s canal network. The city has benefited from both water and land transport. Public transport systems in Bangkok are categorized into three groups that are water-based, rail-based and road-based.

Water transport plays a less important role in the public transport system due to its confined service areas. Express boats and canal boats are more popular during rush hours because they help commuters to save travel time. Fares on water transport are similar to conventional air-condition (a-c) buses, yet the travel time is less. Nonetheless, the level of comfort is low, especially in canals due to the water pollution problem.

Rail-based public transport in Bangkok comprises commuter trains and urban rail transit systems. State Railway of Thailand (SRT) operates the commuter trains as a public service obligation on lines radiating for 61-133 km from Bangkok. The commuter trains play an insignificant role due to their limited service areas, low frequency, and low level of comfort. For the urban rail transit systems, the first phase of the Bangkok Mass Transit System (BTS) was opened in 1999 with a total of 23.5 km of routes. In 2004, the first 20 km phase of an
Underground Metro Line was opened. The BTS is administered by a local government - Bangkok Metropolitan Administration (BMA) and operated by a private Bangkok Mass Transit System Public Co. Ltd. (BTSC). While, the Metro is managed by a government agency - the Mass Rapid Transit Authority of Thailand (MRTA) and operated by a private Bangkok Metro Public Co. Ltd. (BMCL). Fares on BTS start from 10 to 40 baht and MRTA fares are from 14-36 baht. To attract more passengers, extension of the rail transit systems comprising a further 291 km on several routes are considered by the government (OTP, 2004).

Road-based public transport includes mass public transport and personal public transport modes. For the mass public transport, Bangkok Mass Transit Authority (BMTA) was established in 1976 to provide bus services to commuters in BMR (BMTA, 2003). The government considers BMTA services as a welfare function that should be provided to people. BMTA follows this government policy in providing cheap fares for lower income groups. Consequently, bus fares are priced below fully allocated costs and the deficiency is being met by government subsidy. Since BMTA is the only agency authorized to provide bus services, the other bus operators have to get sub-license contracts from BMTA. As of July 2004 (BMTA, 2004), BMTA is responsible for 15,678 vehicles on 426 routes. It operates 3,590 buses on 102 routes with joint-service buses (3,331 buses, 104 routes), minibuses (1,157 buses, 48 routes), small buses plying lanes- operate only on local roads (2,045 buses, 104 routes), and passenger vans (5,555 vans, 116 routes). Another mass public transport is the microbus service that provides 35-seat air-conditioning minibuses with guaranteed seats. The service is operated by Bangkok Microbus Company, a private company that has been directly regulated by the Department of Land Transport (DLT) since 1993. The number of routes was reduced from 35 routes in 1993 to 7 routes in 2004. One reason that the company is losing business is high competition from the passenger vans (GTZ, 2003).

The personal public transport in Bangkok includes taxis, tuk-tuks, and hired motorcycles. After the government ended entry regulation to the taxi trade in 1992, taxis in Bangkok have been licensed through the Commercial Vehicle Licensing Office under DLT (GTZ, 2003). Taxis are required to register and charge metered fares as set by the Land Transport Control Board (LTCCB). Taxi fares start from 35 baht for the first 2 km and increase by distance and travel time. At the end of January 2005, there were 81,983 taxis registered in Bangkok (DLT, 2005). The tuk-tuk is a three-wheeled vehicle that has a two-stroke engine and is powered by liquefied petroleum gas (LPG). DLT imposed a limit of 7,400 tuk-tuks in the Motor Vehicle Act (GTZ, 2003). There were 7,382 tuk-tuks in Bangkok by the end of 2003 (DLT, 2005). Fares of tuk-tuks are negotiable and normally start from 20 baht. Hired motorcycles have become common for public transport commuters in Bangkok in the last ten years. They play roles as feeder services that take passengers from local roads to conventional public transport on main roads. Fares are based on distances and normally start from 5 baht.

3. REVIEW OF BANGKOK TRANSPORT DEVELOPMENT

3.1 History of Overall Transport Planning

Bangkok was a water-based city and known as “the Venice of the East” where people depended on water transport. In 1861, Europeans, who accustomed to riding in carriages or on horseback, complained that they could not engage in these activities due to the lack of roads and submitted an extraordinary petition through foreign consuls to King Rama IV. In response to the petition, the first road- Charoen Krung was built (BMA, 2003). Since then, land transport started to play its important role in Bangkok.
The Thai people became familiar with the land transport. Tramway was opened in 1894 and railway was constructed in 1900 during the King Rama V period. At that time, western people evaluated civilization of other countries by using their own standards and technology. Many countries seen as “uncivilized” by them became their colonies. To avoid this situation, Bangkok was developed by adopting the western ways. It took some times for Thais to get familiar with the western approaches. Western culture turned out to be appreciated, fused by Thais and became Thai culture.

Decisions in public transport were made by the high-income group. For example, Boulek (1999) found that rickshaws were brought to Bangkok via Singapore and Hong Kong by rich people in 1887 as their private vehicles. From then, the rickshaws were introduced by Chinese companies as a public transport and became the most popular transit mode until motorcars were brought to Bangkok in 1907. Policy makers, who used cars, considered the rickshaws as traffic obstruction and a symbol of low technology and undeveloped. Although one newspaper pointed out that these rickshaws generated employments for the poor, the rickshaws were banned from Bangkok streets in 1953. Passengers were encouraged to travel by taxi which was considered as the modern and safe mode. For the low-income group, samlors or pedicap, buses and trams were provided as their choices. This study shows that the decision makers, who were high-income group and car users, made decisions in transport planning responding to their benefits and preferences according to what they learned from the western countries. In 1961, Samlors were also prohibited on Bangkok streets by the similar reasons (Rimmer, 1978).

The first National Economic and Social Development Plan (NESDP) was prepared in 1962, and the plan has been revised every five years. This outlines main development goals of Thailand and, features infrastructure as a key sector. The first 15 years of the NESDP from 1962 is centered on the Basic Road Infrastructure Development. In 1971, just before the third plan, the first Comprehensive Bangkok Transportation Plan was drafted through assistance from West Germany. However, the plan was not implemented because of political turmoil. In the fourth and fifth plan from 1977-1986, major road and expressway projects became the priority as sprawling has already started. The sixth plan focus on the expansion of bus service and expressway network. In 1992, private financing was introduced and some expressway was financed using BOT (Build-Operate-Transfer). However, the 1997 Asian financial crisis has caused deficit in funding, and only 15 percent of the projects was funded. Despite the adequacy in the planning of infrastructure, like other Asian developing countries, many programs and projects has not been realized.

Urban planning code was prepared in 1975 as the accomplishment of the third plan. But it was only in 1992 that urban planning was prepared for Bangkok. Land use control was available only for specific limited areas in Bangkok until the middle of the 20th century and it produced juxtaposition of different land uses in one place. Floor area ratio (FAR) was introduced into certain areas in 1981. FAR for the high-rise building (more than 23 meters) and large scale building (total floor area is more than 10,000 m²) was increased into 10:1 in 1992 which further produced traffic volume in the city (Kishiue et al., 2005).

3.2 Why fail on Public Transport Planning

Public transport planning in Bangkok was influenced by western concepts and technology. The first transport master plan, Bangkok Transportation Study, was conducted by a team of German experts and their Thai counterparts during 1971 to 1975 to solve problems from
traffic congestion (Kocks, 1975). The study recommended that a public transport policy oriented and private vehicles restriction should be adopted in Bangkok. Mass Rapid Transit (MRT) and expressways should be constructed. However, only the expressway was constructed in the center of Bangkok due to its high economic and financial feasibility (Rujopakarn, 2003).

Rimmer (1978) does not agree with absolutely employing modern and expensive technology from developed countries to developing countries. He indicated that the objectives of the transport policies, which had direct or indirect involvement of developed countries, were considered to be “inimical” to the well being of the developing countries. He quoted a set of guidelines, which addressed by Enrico Macchia-Acting President of Organization for Economic Co-operation and Development (OECD) in 1977, for developing countries to present to advisors and manufactures from developed countries as follows:

(a) Do not force us to import expensive capital equipment, replacement parts and high powered techniques;
(b) do not give us energy-inefficient “solutions”; 
(c) do not give us transport systems that will worsen our countries as places to live and work in; 
(d) do give us jobs as well as mobility; 
(e) do not forget existing transport systems and non-corporate organizations and practices-build on them; 
(f) remember we cannot afford your Paris Metros, your San Francisco BARTS, your Tokyo Mono Rails, nor even your loss-making public bus systems.

A Thai scholar monk, Venerable Payutto (2000) describes in his book; Sustainable Development, that Thais had an attitude that development in the western world or industrial countries was the most civilized. Therefore, the path of Thai development is always following those developed countries. He remarked that instead of catching up with the developed countries at the very moment, Thai followed those countries past which some were obsolete or abandoned. He also raised a question whether it was because Thais might not have concepts or characters of being a leader in development.

Rujopakarn (2003) observed that Thai people including transport planning authorities have easily accepted western concepts and technologies without thinking of the suitability to the Thai society. This circumstance resulted in traffic conditions in Bangkok. Although many foreign and Thai experts have been trying to solve traffic problems in Bangkok but the problems are remained and becoming more complex. He studied what went wrong in Bangkok transport system development and found that there are no real coordination among government agencies who involve in transport planning and urban planning, no real transport master plan, and no real planning standard that correspond to Thai behavior. To solve traffic problems in Bangkok, he pointed that “people” are the most important cause of traffic problems. To direct people with traffic codes and regulations, the involved authorities have to understand their behaviors. A good transport research and development process is needed in order to gain the base of knowledge and standards for Bangkok.

### 3.3 Water-based Public Transport

Although water transport plays less important roles in public transportation due to its confined service areas, but it can help commuters to save their travel times during rush hours. Express boats and klong boats are popular in the morning and evening. The network of water
transport services is operated on the Chao Phraya River and major klongs which are Klong Sansab, Klong Prakanong, Klong Ladprao and Klong Phadungkrungkasem. There are also unlicensed and charter boats operate on the river and other klongs. There were 371,832 passengers per day in 1999 and reduced to 310,283 passengers per day in 2002 (MD, 2003). Passengers on Klong Ladprao and Klong Phadungkrungkasem were too low to make profits. As a result a company finished the boat services in 2000. It is one reason that total numbers of passenger was reduced.

At present, boat services both on the river and klongs are licensed and regulated by Marine Department under Ministry of Transport. Only two companies operate the services between Pak Kret, Nonthaburi in the north to Samut Prakan in the south. Fares of express boats are 6, 8, and 10 Baht while fares of special express boats are 15 and 25 Baht (MD, 2003). The services on Klong Sansab managed by only one company while the services on Klong Prakanong organized by local community. Fares on Klong San Sab are varied from 5 to 15 Baht while fares on Klong Prakanong are 5 Baht for adult and 1 Baht for children (MD, 2003).

Fares of water transport are similar to air-conditioned buses but travel time is less. However, level of comfort is low, especially Klong San Sab boats due to water pollution. Access and integrating to bus services has been improved. In 2002, the government launched a project “Boats to Buses - Buses to Boats” to encourage passengers to travel by boats in order to reduce energy used in transportation. It was expected that boat passengers would be increased when buses feed passengers to major piers. Information of the project was introduced to public through media. Signs were installed at entrances to piers to facilitate bus passengers to boat services. Integrating boat services to rail transit or BTS was also implemented at Taksin Bridge on Sathorn Road. Sathorn pier and walkway to Taksin Bridge station were improved. Results of the project have not been evaluated. Nevertheless, commuters gain more alternatives in commuting.

3.4 Rail-based Public Transport
Urban rail transit system was provided to passengers in Bangkok in 1887 when a horse-drawn tramway line was opened. In 1894, an electric tram system was opened by Bangkok Tramway. It was the first electric tram system in Asia. The tram was a popular system that shared its right-of-way with other traffic. In 1927, there were 206 trams operated on 8 routes with total distances of 48.7 km. Bangkok tram system was closed in 1968 (Rossman, 2003).

In 1971, an exclusive right-of-way transit system was proposed to Thai government when the World Bank assigned German experts to study and solve traffic problems in Bangkok. The resulting product was the Bangkok Transportation Study (BTS). BTS provided a transport master plan for the BMR, and recommended that public transport oriented policy should implement and a mass transit system should be built. Mass Rapid Transit (MRT) was proposed as a flexible segregated at-grade and elevated system which could be used initially by rapid transit buses and be able to converse to train operation when traffic demand increased (Kocks, 1975). Unfortunately, MRT was not implemented because managing a mass transit system is complex, the government did not have the necessary expertise, and mass transit system requires high technology to confirm efficiency and cross services (Pianuan et al., 1994).

A master plan for mass transit in Bangkok was revised many times due to economic and political changes. In 1995, Mass Transit Master Plan (MTMP) was proposed. The rail mass
transit system consists of a trunk line, which is designed to be the backbone of public transport in Bangkok. It consists of heavy rail mass transit lines linked together by interchanges, which form a single network. In 1998, Thai DCI et al. studied the Mass Transit Feeder System to plan access for passengers to the rail system. The study recommended Light Rail Transit (LRT), medium capacity or monorail systems on segregated right-of-way as feeder systems (Thai DCI et al., 1998).

In 2000, the MTMP was revised as the Urban Rail Transportation Master Plan (URMAP), which combined the four trunk lines and two feeder lines. The revision was due to changing circumstances after the financial crisis in 1997. The URMAP aims to deal with the mass transit needs of the BMA and its surrounding area by the year 2021 (PCI et al., 2000). In 2006, OTP published “The Intermodal Services Integration for the Improvement of Mobility, Accessibility and Livelihood for Bangkok Metropolitan Region (BMR) and Surrounding Area (IMAC study)” as the latest MTMP (OTP, 2006).

Operating a rail transit system alone is not a solution for solving traffic congestion. Even with the BTS and MRT operational, the number of registered cars has increased, and most public transport users still depend on buses and paratransit such as taxis and motorcycle taxis. Patronage on the BTS is well below estimated. The daily ridership was 161, 217, 264, 287, 325 and 344 thousand passengers in the year 2000, 2001, 2002, 2003, 2004 and 2005, respectively. While the original forecast demand was 600 thousand.

The Underground Metro line or the Blue line was opened in July 2004. The first phase of the Blue line is operated between Hua Lamphong railway station in center of Bangkok and Bangsue railway station in northern part of Bangkok, total distances is 20 km. Fare are varied from 14 to 36 baht. A park and ride facility for 2,000 cars is provided at Ladprao station.

3.5 Road-based Public Transport
3.5.1 Conventional Road-based Public Transport

Originally, bus services in Bangkok were provided by a private sector. Phraya Phakdi Noraset (Lert Setthabutr) started the service by using horse-drawn carriages in 1907 and changed to three-wheeled Ford motorcars with two long parallel benches for seating in 1913. Bus services became popular. Many companies entered to this business and provided the service throughout major areas of Bangkok. Number of buses and bus routes increased and partly created traffic congestion. There were 24 private and 2 state bus companies with a total of 3,773 buses in 1975, when the government decided to take over and merge the bus services.

A reason that the services transferred to the government was Thailand faced a high inflation rate. Bus companies increased bus fares but provided inappropriate services. A team of German experts, who studied Bangkok traffic in 1971, recommended to merge the bus companies into a single unit and to be operated by a private company or by the state, or by a joint private and state enterprise. In October 1975, the government joined the bus services and operated as a non-profit company namely “Mahanakhon Transport Company Limited”. Unfortunately, the company was closed due to some legal constraints and a change in the government. In August 1976, “Bangkok Mass Transit Authority (BMTA)” was established. BMTA provides bus services to commuters in Bangkok and the five neighboring provinces (BMTA, 2003).

Bus fares were increased by 20% shortly after the merging. However, the system started to operate at a loss. By 1979, BMTA was losing around 25 million US$ a year, while an
estimated 7,000 private minibuses were operating at a profit. The main reasons that BMTA lose in the service were increasing wages to bus staff and reducing utilization of vehicles.

In 2002, BMTA had around 2.5 million passengers per day. The government considers BMTA services as a welfare function that should be provided to people by the public authorities. The BMTA follows this government policy in providing cheap services for lower income groups. Consequently, bus fares are priced below fully allocated costs. For example, regular cream-red buses have the operating cost per passenger comes to 8.17 Baht, while the fare is only 3.50 Baht, the remaining amounts being met by government subsidy. Information from BMTA shows that during October 2000 to July 2003, BMTA had loss for 29 billion baht.

Vans started to play roles in Bangkok public transport sector in 1984 (Longji, 2003). Eamsupawat (1999) interviewed van bus drivers and found that van bus services were developed from school buses. Vans were used as school buses that provided services to kindergarten up to high school students only in the morning and evening. During the day, van drivers could provide services between universities and shopping centers for to university students.

The van services were started by investors who could see benefits in responding to demands of commuters in suburbs of Bangkok. Van bus stands or “win” at an origin and a destination of each route were established. To establish the stands, the investors need to be supported by some influential figures, either police or soldier, and paid enormous profits in return. Routes were determined by selecting suitable directions between city centers and suburbs that were not duplicated with existing routes. Investors and drivers trailed providing services on each route to see whether it was feasible. The feasible routes would be continued and services would be expanded (Eamsupawat, 1999; Longji, 2003).

According to Land Transport Act 1979, these services were illegal because vans were registered as private vehicles using black-white license plates. Furthermore, according to Royal Decree Establishing the Bangkok Mass Transit Authority, B.E. 2519, BMTA authorized to provide bus transport in BMR. The other bus operators required to get permission from BMTA. The investor paid bribes to police, who look after the areas along van routes, and some officers in related government agencies, such as DLT and BMTA, in order to operate the services.

The main factor that stimulated the expansion of van businesses was rapid economic growth in Thailand during 1986 to 1996. Increasing of population with uncontrolled and unplanned land development in Bangkok and the neighboring provinces, including insufficient public transport led to the most serious problem in Bangkok, traffic congestion. Finding comfort and convenience for themselves is human nature, therefore private cars increased continuously. For people who could not afford cars and stayed in areas where BMTA buses-the main public transport was inadequate, air-conditioned vans with guaranteed seats became their popular choice.

In 1999, BMTA allowed van bus drivers to register and make contracts as joint services with BMTA. Each van driver required to pay 3,605 baht for permission and 1,000 baht in monthly concession fees to BMTA. After registration with BMTA, the van drivers had to improve their vehicles to meet standards of DLT, applied for licenses from DLT and received black-yellow license plates as licenses to operate public transport services. The licenses were valid for 7 years. For the license plate, each driver required to pay 1,100 baht to DLT (The Nation,
3.5.2 Paratransit
After the government stopped entry regulation to the taxi trade in 1992, taxis in Bangkok are licensed by the Commercial Vehicle Licensing Office of the DLT (GTZ, 2003). Taxi is required to register and charge metered fares set by the Land Transport Control Board. Taxi fares start from 35 baht and increased by distances and traveling times. Statistics from DLT shows that there were 53,268 taxis registered at the end of 2002 and 5,455 new taxis registered at the end of 2003 (DLT, 2004). Although taxis are the most expensive modes among public transport in Bangkok but they are popular. Rujoprakarn (1999) pointed that taxis accommodated around 1.5 million passenger trips per day which was around 15% of trips on Bangkok public transport. However, taxis cause traffic congestion when cruising and looking for passengers along streets in urban areas. Taxi stands, which 2 taxis can park and wait for passengers, are provided but they are not well utilized by taxi drivers.

Tuk-tuks are three-wheeled vehicle that has two-stroke engines powered by LPG. Although tuk-tuks have poor maintenance, exhaust smoke from burning lubricating oil and have high noise level, but they are popular among tourists as a symbol of Bangkok or Thailand. For local people, tuk-tuks are used for traveling in short distances that fares are lower than taxis. DLT imposed a limit of 7,400 tuk-tuks under the Motor Vehicle Act (GTZ, 2003). Statistics from DLT shows that there were 6,462 tuk-tuks registered at the end of 2002 and no new tuk-tuks registered at the end of 2003 (DLT, 2004). Fares of tuk-tuks are negotiable. Normally, fares start from 20 baht.

Since the last 10 years, motorcycle taxis are very popular for public transport users in Bangkok. They play role as a feeder service that feed passengers from minor roads to conventional public transport on the main roads. They also provide faster trip on the main roads during rush hours. However, motorcycle taxi business involved with corruption and criminals because they could make very high profits. Kasikorn Research Center found that this business generated revenue around 20 billion baht a year. To start the businesses, investors with support from some influential figures established motorcycle taxi stands or “queue” at entrances of minor roads. A motorcycle taxi had to pay excessive fee for the right to work at a stand. Additionally, investors and riders had to pay monthly protection money to the influential figures. The riders received a colored, numbered vest as a license to work. Each stand has s different jacket design.

Smart Urban Transport (SUT) magazine estimated that there were around 40,000 motorcycle taxis in April 2003 (GTZ, 2003). In order to prevent crimes, the government requested motorcycle taxis to register at police stations in areas where they provide their services. This allowed some corrupt police to earn revenues from the riders. SUT (GTZ, 2003) pointed that corrupt police sold right to operate to an investor. The investor received a colored, numbered jacket as an informal license and rented a jacket to a motorcycle taxi. Corrupt police could earn an annual income over 240 million baht and the value of the jackets issued was estimated as around 1.6 billion baht.

At present, the government attempt to cut back the power of influential figures. They plan to regulate motorcycle taxis by developing a motorcycle taxi bill to ensure that riders could earn themselves without paying protection money to criminals. In May 2003, motorcycle taxis in Bangkok required to register with a BMA district office in the area where they operate. Registered riders received a vest to show that their services had been authorized by BMA.
After registration period, BMA found that there were 114,452 motorcycle taxi riders from 4,324 stands citywide (The Nation, 2003).

4. SUMMARY

Bangkok has not done any special measures in its transportation system. Parking provision has been at the discretion of private property owners and no public parking exists. Institutional reforms and user charges are not being implemented. Many ambitious policies have been planned like the exclusive bus lane and the automatic location system for buses. However, they have only reached the experimental level and have not reached full implementation because of financial constraints and political conflicts. Only the ring road, expressway, overpass, underpass, BTS and MRT have been successfully implemented.

Rujopakarn (2003) has cleverly summarized what went wrong in the Bangkok Transport System: (1) uncoordinated land use and transport projects, (2) heavy reliance on private sector financing, and (3) heavy influence of foreign standards in planning, and (4) road oriented development program. In addition to these issues, there are the (1) absence of real institutional coordination, and (2) dummy master plan that do not reach the negotiation table. To conclude, three broad points are deemed for consideration in Bangkok. First is the coordination between transport and land use related institutions. Second is appropriate financing scheme to match fiscal condition of Bangkok. Last is the formulation of a robust master plan that will not suffer from incremental decisions due to selective implementation and case-by-case changes.

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