

Eighth Regional EST Forum in Asia

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“Next Generation Solutions for Clean Air and Sustainable Transport -Towards a Livable Society in Asia”
19-21 November 2014, Colombo, Sri Lanka

City Report

(Draft)

<Tangerang City, Indonesia>

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City Report Next Generation Solutions for Clean Air and Sustainable Transport – Towards a Livable Society in Asia

Tangerang 2014



Government of Sri Lanka
Ministry of the Environment
CLEAN AIR ASIA

**Integrated Conference of
Better Air Quality (BAQ) 2014
&
Intergovernmental Eighth Regional Environmentally
Sustainable Transport (EST) Forum in Asia**
19-21 November, 2014
Venue: Bandaranaike Memorial International Conference Hall (BMICH)
Colombo, Sri Lanka

CITY REPORT: TANGERANG CITY, INDONESIA

A. INTRODUCTION

Tangerang City (www.tangerangkota.go.id) is located adjacent to Jakarta. The total area is about 184.24 km² including the Soekarno-Hatta International Airport area of 19.69 km². Final report of Mayor 2009-2013 released that the number of population was about 2 million inhabitants (2012). Density of the people was more than 12 thousand persons/km². In 2013, the economic growth was predicted as high as 6.96% per year. The Gross Regional Domestic Products (GRDP) per capita of Tangerang City (2012) was about IDR 33.51 million at current price. Furthermore, the value of Human Development Index was about 76.99.

B. TECHNICAL REPORT

One of big challenges in the effort of developing transportation in Indonesia is the issue of local and central governments' authority. In a region or a city, it is not peculiar if a local government can do nothing and has no rights to handle a problem in its area due to that the problem is under the authority of central government.

Nevertheless, to support the standard of minimal service in the scope of infrastructure and transportation system in Tangerang City, at least two objectives should be achieved regardless authority issues of local or central governments' portion. Firstly, optimizing the physical infrastructure of the city's transportation is a must, and secondly, enhancing the transportation's network and system efficiently and effectively is in priority.

In concrete, to achieve those two objectives in controllable and systematic ways, eight running programs of action plan were withdrawn as follows: (1) Road network improvement and development program; (2) Intersection improvement and development program; (3) Integrated terminal development program; (4) Public transport services improvement and development program; (5) Controlling the usage of private vehicle; (6) Traffic and transport facilities development program; (7) Goods services controlling program; (8) Traffic and road management and engineering.

Q-1 What are the major challenges and constraints faced by your city in implementing sustainable transport policies and measures?

According to the Grand Design in Traffic Management Engineering of Tangerang City (2013), several challenges and constraints in transportation issues faced by Tangerang City could be withdrawn as follows:

1. Common mindset of the people brings to an image of social status that those using private vehicles are higher than those using public transportation.
2. Network of the road is not well connected either inside the city or interconnection to the other, so that the flow of traffic is not effectively carry out. As shown in dotted line in Figure 1, missing link of the road network is identified at north-east, north-west, and south-west parts of Tangerang city.

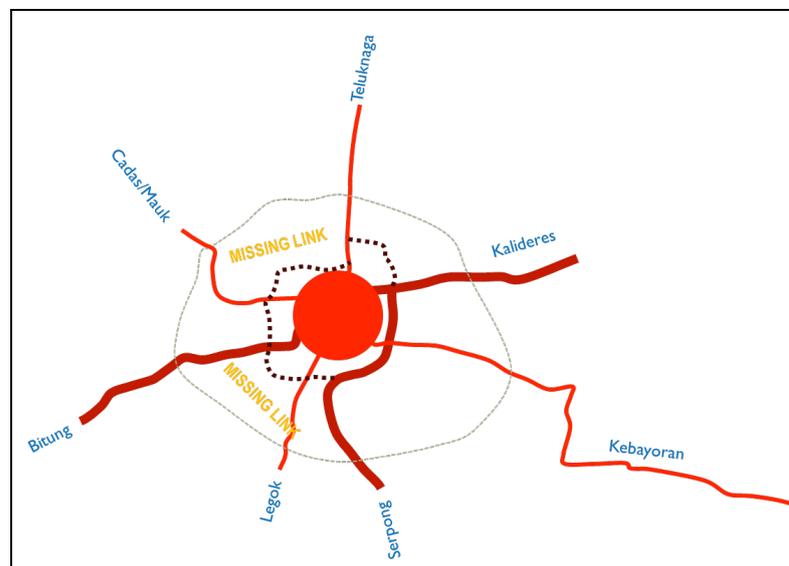


Figure 1. Missing link in road network in Tangerang City

3. Growth of number of vehicles has some gaps to that of road capacity.
4. Operation of the current public transportation performs below the standard of minimum services as required, such as unscheduled, age of the vehicles more than 5 years old, the load factor of 25% in average based on dynamic and static surveys as shown Figure 2, and having headway of 5.91 minutes.
5. Percentage of the usage of private vehicles is about 92.1%, while the rest of that using public transportation.
6. Performance of average speed in the city in the peak hour is about 21.6 km/jam, which is below the standard of minimum service.

7. Traffic management covers not to the whole of the city yet, so that the transportation and its derivatives get into the issue of performance in low optimum.

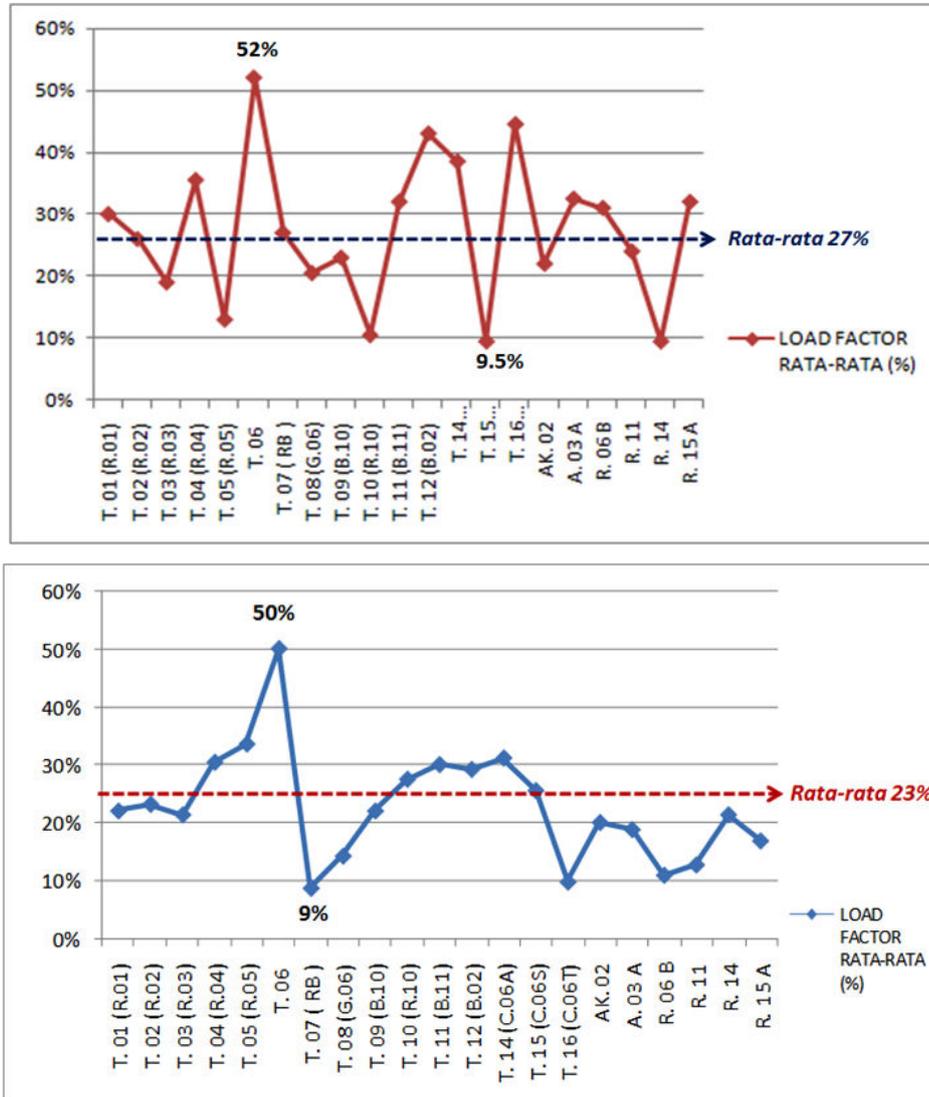


Figure 2. Number of load factor of public transport obtained from dynamic and static surveys

Q-2. What is the mode share (%) in public transportation system? What action you have taken to promote public transport system such as BRT, MRT and LRT in your city?

Figure 3 shows the portion of the usage of transportation mode resulted from transportation study of The Greater Jakarta (Jabodetabek), includes Tangerang City area. Grouping of transportation mode of walk, bicycle, motorcycle, car, and bus were considered. Large changing in the portion of motorcycle and bus usages between 2002 and 2010 were observed.

Within eight years people tends to shift from public to private transportation modes, especially the motorcyclist, while the portion of the bus usage in 2002 comes to be half that in 2010. This phenomenon might be explained due to the fact that the price of motorcycle is getting cheap year by year, while the public transportation is still far from that so called comfortable transport.

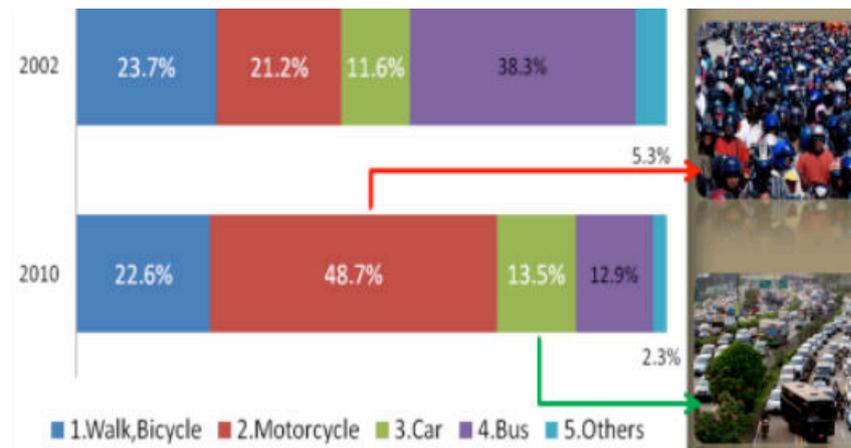


Figure 3. Portion of the usage of transportation mode in 2002 and 2010

Furthermore, study in 2013 (part of Grand Design in Traffic Management Engineering of Tangerang City) reported that based on survey on traffic flow in 2012-2103 the usage of private vehicles including car and motorcycle in Tangerang City were about 92,11%, while that of public transport was at the rest. This fact discovers a deviation between the current and the ideal conditions as written in World Bank standard, that the portion of public and private transport should be 60% and 40%, respectively.

Shortly, the mentioned study advised that the implementation of Bus Rapid Transit (BRT) program which is integrated with Trans Jakarta is highly recommended. Several Public transport passageways (noted that in this study it is called corridors) with BRT and BRT Lite are specifically plotted covering Tangerang city as follows:

1. Optimization Bus Lane Poris Plawad-Kalideres-Mall Taman Angrek
2. Implementation of BRT corridor in Tangerang city:
 - a. BRT, Ciledug-Blok M
 - b. BRT, Tangerang-Puri Kembangan-Harmoni
 - c. BRT, Tangerang-Ancol
 - d. BRT Lite Corridor 1, Poris Plawad Terminal - Periuk Terminal

- e. BRT Lite Corridor 2, Poris Plawad Terminal - Jatiuwung Terminal
- f. BRT Lite Corridor 3, Poris Plawad Terminal -Super Mall Lippo Karawaci
- g. BRT Lite Corridor 4, Poris Plawad Terminal -Mall@Alam Sutera
- h. BRT Lite Corridor 5, Poris Plawad Terminal - Ciledug Terminal
- i. BRT Lite Corridor 6, Poris Plawad Terminal - Soekarno Hatta Airport
- j. BRT Lite Corridor 7, Poris Plawad Terminal - Cibodasari Terminal
- k. BRT Lite Corridor 8, Ciledug Terminal - STA 11 - Soekarno Hatta Airport
- l. BRT Lite Inner Circle Kota Tangerang A : Terminal Poris Plawad - Jl. Benteng Betawi - Jl. Maulana Hasanudi - Jl. Hasyim Asy'ari - Jl. Veteran - Jl. Moh Yamin - Jl. Perintis Kemerdekaan I - Jl. Perintis Kemerdekaan - Jl. Promonade Cisadane - Jl. Otista - Jl. Daan Mogot - Jl. Maulana – Hasanuddin - Poris Plawad Terminal.
- m. BRT Lite Inner Circle Kota Tangerang B : Poris Plawad Terminal - Jl. Benteng Betawi - Jl. Maulana Hasanudin - Jl. Daan Mogot - Jl. Ki Samaun - Jl. Promenade - Jl. Veteran - Jl. Hasyim Asy'ari-Jl. Maulana Hasanuddin - Poris Plawad Terminal

In practice today, preparation on BRT Lite Corridor 3 (Poris Plawad Terminal -Super Mall Lippo Karawaci) is in progress. Nine shelters as the first project along the BRT Lite Corridor 3 are constructed. Additionally, at least 2 shelters are constructed by 2 companies, which of known as an outline of the participation carried out by private sectors in Tangerang City.

Q-3 Is NMT (non-motorized transport) an integral part of your transport policy, planning, and development? What action you have taken to promote NMT (safe bicycle and pedestrian facilities) in your cities?

As shown schematically in Figure 4, Grand Design in Traffic Management Engineering of Tangerang City (2013) mentions that to overcome problems in transportation in Tangerang city, three approaches of management are reserved. Non-motorized transport as part of Transport Demand Management is designed to reduce the amount of vehicles on the busy road and also to promote the environmental-friendly transportation.

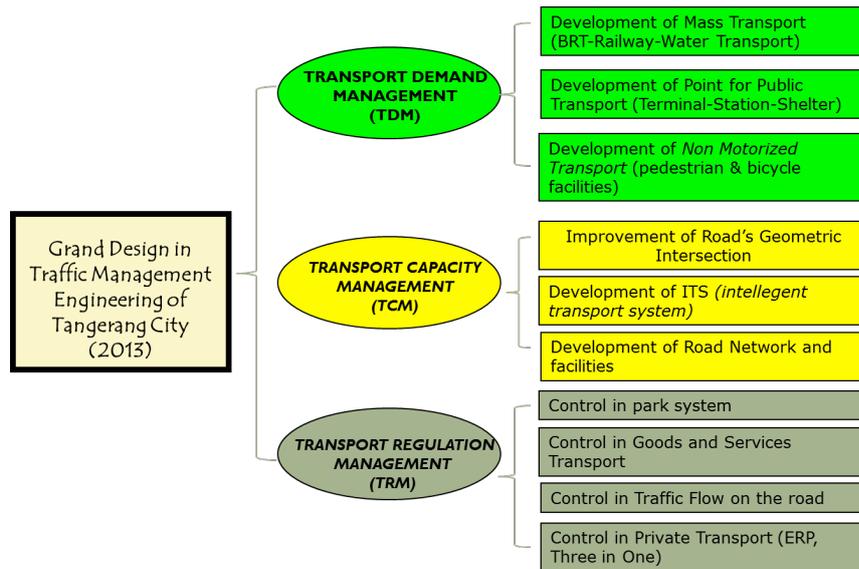


Figure 4. Grand Design in Traffic Management Engineering of Tangerang City (2013)

Practically, as mentioned in the beginning about the eight running program of action plan, Tangerang city has been worked on controlling the usage of private vehicle, which is one of the backbone projects is developing the bicycle lane and pedestrian. As shown in Figure 5, pedestrian having greenery area and also space for cyclist are developed at several main roads in the city.



Figure 5. bicycle lane (left), pedestrian (right)

Q-4 Is your city implementing or in a process of developing any transport Master Plan? If so how far the transport Master Plan is people and environment- friendly, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons?

Tangerang city has been started to develop infrastructures systematically including in transportation aspect. The Regional Long Term Development Plan (RPJPD) for 2005-2025

and Spatial Plan (RTRW) for 2012-2032 having statements of policy and strategy of infrastructure development were prepared by the government of Tangerang city. Furthermore, to ensure the achievement of the standard of minimum service in transportation aspect, Grand Design in Traffic Management Engineering of Tangerang City (2013) was arranged.

As mentioned above, one of the eight programs of action plan focusing on controlling the usage of private vehicle has been carried out. Practically, projects regarding people and environmental friendly have been run in the area of Tangerang city.

Q-5 What are the current parking policies and traffic restraint measures of your city?

Based on study of parking in Tangerang City (2010), regarding to the land use there are 2 types of parking, i.e. on the street and off the street. Both of them mostly are located near to the economic activities in the downtown, while the rest are near to the housing area. On street parking is allowed since the space especially in the downtown area is limited.

Chapter of traffic and road management and engineering as part of Grand Design in Traffic Management Engineering of Tangerang City (2013) underlines that at minimum three measures should be done in the near future regarding this issue, those are (1) implying the limitation on the on street parking policy for artery, collector, and main-intersection roads; (2) improving the U-turn on the main road; and (3) implying contra-flow and one-direction policies in the area that prone to traffic jams.

Q-6 How does your city implement road safety policies and measures? Is there any improvement in traffic safety since Kyoto Declaration (2007)? Could you provide the number of traffic accidents and fatalities for last 7 years (2007-2014)?

Chapter of traffic and transport facilities development program as part of Grand Design in Traffic Management Engineering of Tangerang City (2013) underlines that to achieve the high level of road safety, public order, and the smooth traffic, not only enhancing and developing the traffic infrastructures including their facilities, but also strengthening the law enforcement should be put in high priority.

In practice, to implement road safety and the measures related to transportation aspect for 2009 – 2013, the local government of Tangerang City by conducting 6 major programs has been spent at least IDR 79.8 billion (equal to about USD 7.9 million) as shown in Table 1.

That amount of money was spent not only for developing and enhancing the physical transport facilities, but also for supporting the policy in transportation aspect regarding the software, such as mass campaign, people education, and vehicles' emission tests.

Table 1. Tangerang City's spending in Transportation Aspect for 2009-2013

No	Program related to Transportation Aspect	Transportation Agency (IDR)	Cleaning and Park Agency (IDR)
1	Transportation Facilities Development Program	6,393,169,240	18,079,575,100
2	Transportation Facilities Rehabilitation Program	8,942,237,230	9,719,626,559
3	Transport Services Enhancement Program	12,357,187,050	-
4	Transportation Infrastructure Development Program	6,460,200,430	-
5	Traffic Security Enhancement Program	17,628,714,230	169,820,500
6	Vehicles Feasibility Enhancement Program	70,839,700	-
Sub Total (IDR)		51,852,347,880	27,969,022,159
Total (IDR)			79,821,370,039

Source: Final Report of Mayor, 2013

IDR = Indonesian Rupiah

In July 2014 committee of Indonesia Road Safety Award (IRSA), a Non-Profit Organization run for safety road and its related aspect, released their results of survey and self-scoring as shown in Figure 6. This study reported the result of survey and self-scoring by committee having comprehensive scopes of work including points of safer user, safer management, safer road, safer vehicle, and post-crash response. Wide profiling of 400 persons as respondent considering age, sex, transport user, and education were considered. Based on the survey, the minimum value of point describing the level of people satisfied amongst all 5 criteria is 3.14 of maximum score at 4.

Furthermore, Table 2 shows data of traffic accident and fatalities in Tangerang City obtained from Tangerang City Police District. After 5 years the number of accidents in 2013 is almost half of that in 2009, although the value of loss material tends to increase. This phenomenon explains that the awareness of Tangerang people to the important of keeping safety on the road is getting better year by year. Meanwhile, due to that data of properties involved in the accident are very limited, shortly the increasing of the values of loss material could not be explained here.

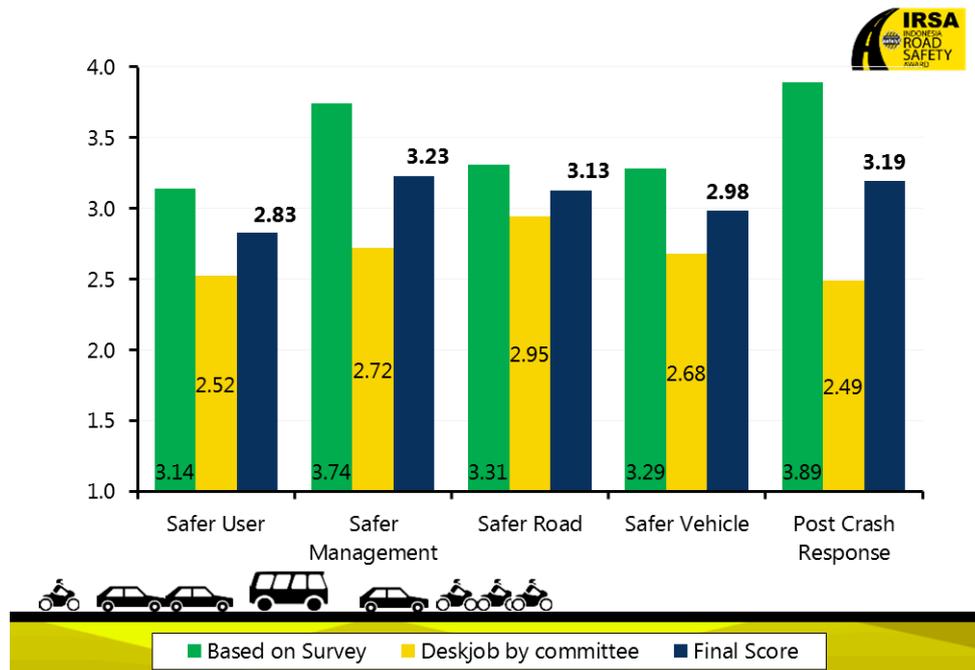


Figure 6. Comprehensive study of Road Safety resulted by IRSA (2014)

Table 2. Number of traffic accidents and fatalities in Tangerang City

No	Year	Number of accidents (times)	Victims (person)			Total of victims (person)	Losses	
			Dead	Serious Injured	Minor Injured		Properties (units)	Material (IDR)
1	2009	470	35	189	507	731	749	624.400.000,-
2	2010	524	67	231	518	816	853	899.823.000,-
3	2011	432	20	123	454	597	677	761.900.000,-
4	2012	473	34	203	496	733	722	1.004.435.000,-
5	Up to Sept 2013	287	17	108	285	410	454	814.430.000,-

Source: Tangerang City Police District, 2014

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