5 PUBLIC TRANSPORTATION USE PROMOTION POLICY

5.1 OUTCOMES

1) Reduced travel times for public transportation passengers
2) Increased punctuality of public transportation system
3) Reduced access time to public transportation system
4) Reduced costs of public transportation

5.2 STRATEGIES

(1) Increase of Railway Transportation Capacity and Improvement of Service

Railway transportation plays an important role as a trunk transportation system to serve massive passenger movements in Jabodetabek. Improvement of the existing railway lines and construction of new MRT lines will significantly increase passenger capacity. The service level of railway service should also be improved to attract people who currently use private modes of transportation. At the same time, PT. KAI should improve management capability to reduce the operation cost and to increase passenger revenue.

(2) Enhancement of Maintenance System for Electric Train Cars

Insufficient maintenance of electric train cars is caused by shortage of spare parts, which is partly attributable to the fact that too many types of train cars are being utilized for the Jabotabek train operation. Standardization of electric train cars to be utilized in PT. KA is therefore recommended to reduce the kinds and quantity of spare parts required for maintenance and the necessary knowledge for maintenance. Then a maintenance standard should be established for the selected electric car type and maintenance training program should be provided for railway maintenance staff. Furthermore, spare parts factory shall be established to avoid shortage of those imported from foreign suppliers.

(3) Improvement of Management of Railway Operation

PT. KA should improve its management to reduce the operation cost and to increase passenger revenue. PT. KA should establish an account system that can provide sufficient information for developing a business plan such as revenue and operation cost by railway line. Separation of organization operating the Jabotabek railway from the medium and long distance train operation is also recommended to understand business situation more clearly and develop a business strategy for urban railway.

(4) Railway Operation Financial Reform

Railway station should be changed to a closed system to reduce free riders and to increase fare revenue from passengers. Closed system stations can be developed by elevation of platforms, provision of fence, and construction of overtrack station. In addition, PT. KA should seek for the way to absorb the development benefits accrued from the railway service through coordination with land developer, or alternatively PT. KA should expand the scope of business to include real estate business along the railway line, although it requires modification of laws and regulation.

(5) Enhancement of Inter-modality

Smooth transfer from one mode to the other would significantly increase passenger convenience of public transportation. Thus interchange facilities such as interchange facilities for trunk bus system, interchange facilities between railway and bus routes, station square and access roads should be developed and enhanced. In addition, bus feeder services will be provided for railway passengers within a 5-kilometer radius from the station. Facilities for “park and ride” and “kiss and ride” should also be taken into consideration.

Furthermore, integration of transportation fare system should be enhanced for convenient use of public transportation. With an integrated fare system people do not have to pay every time at their boarding. This system can be first introduced to a trunk bus system and further extended to the other public transportation. Reduction of transportation cost would lead to encourage the use of public transportation.

(6) Provision of Extensive Public Transportation Network

As urbanization proceeds, people enjoy various urban life styles and they have different values for goods and services. In the context in transportation sector, the present public transportation services do not fully satisfy the various types of demand in the city since people demand various kinds of services according to their life style and values.

Public transportation system at higher level of service should be developed in the form of network in order that people can reach destinations within the system. This means that a single route at high service level does not attract people for public transportation usage. A public transportation network should consist of several trunk lines with feeder services and should cover a wide area as much as possible. Such an extensive public transportation network would provide affordable means of transportation for low-income households, so that it allows them to live in less populated areas where they can afford to have a more spacious residence.

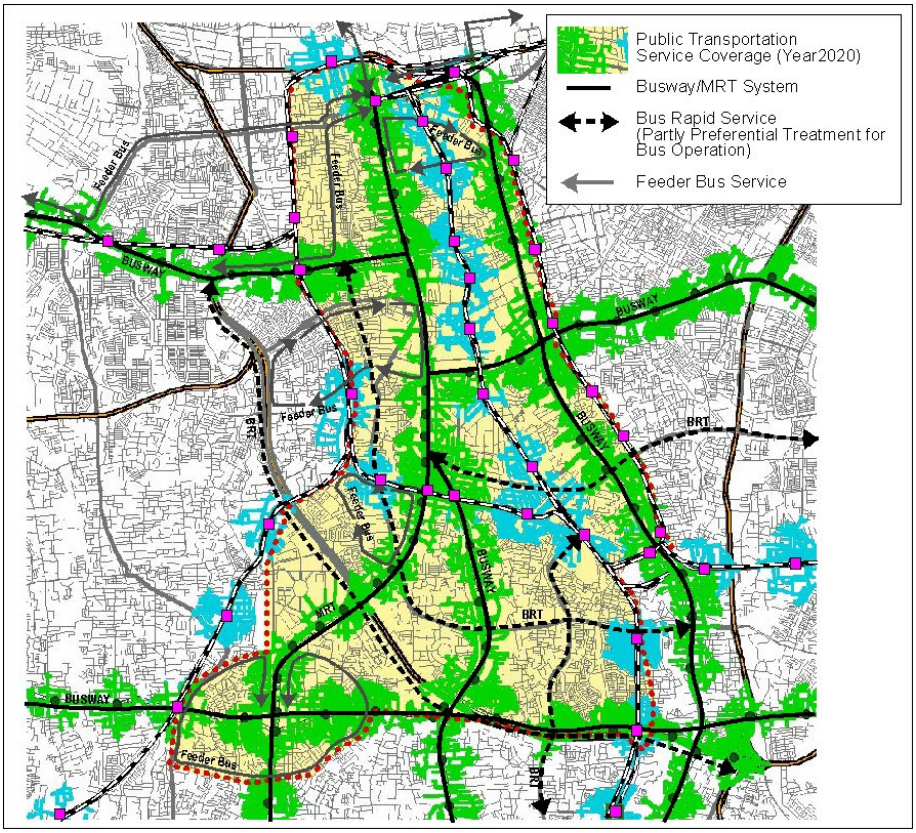

Figure 5.1 Feeder Bus Services in CBD

(7) High Intensity Land Development in the Surrounding Area of Railway Stations

To promote public transportation use, integration of transportation system with land use is very important. If majority of people live and work in the vicinity of railway stations and bus terminals, it would be convenient for them to use public transportation. To make this happen, floor area ratios in the surrounding area of railway stations and major public transportation interchange points should be higher than in other areas. More concretely, highly dense commercial and business buildings are to be developed in urban area, on the other hand, highly dense housing should be provided in suburban area.

(8) Giving Priority for Public Transportation

Better transportation without increasing road capacity can be achieved by alternating usage of road space. This means allocating more road space to public transportation and providing safe and comfortable pedestrian facilities. Moving more people in the same road space needs higher capacity vehicles. To make public transportation more effective, buses should not be tied up in the traffic congestion and should offer time saving advantages over the car users. Priority should therefore be given to bus services, and an exclusive bus lane, which is segregated from general traffic, should be provided.

When busway is introduced as trunk public transportation system, bus route structure should be redesigned. The current bus routes will be consolidated and divided into trunk bus routes and feeder services.

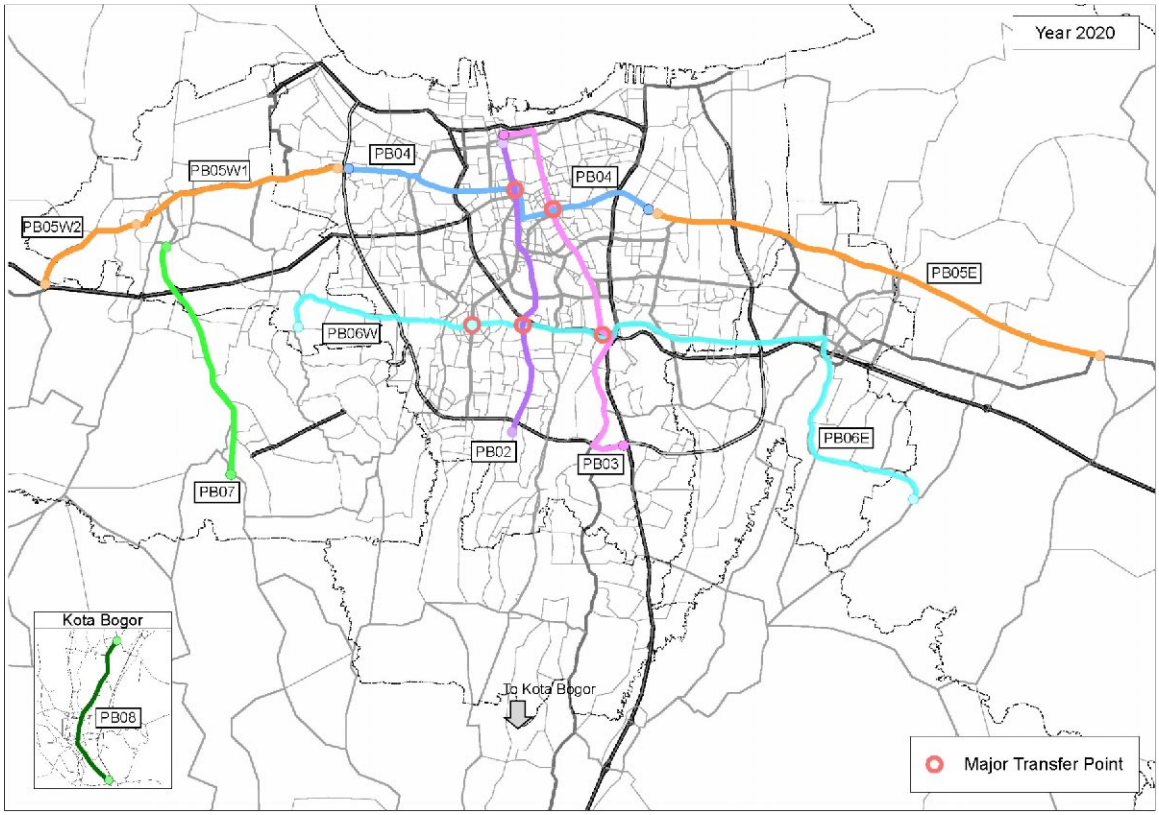

Figure 5.2 Busway Corridor Development[11]

(9) Reformation of Bus Operation Regime

The current bus operation license stipulates the quantity of bus services but it does not specify the level of services. Bus operators are not providing satisfactory level of services due to lack of bus passenger revenue. Bus service standard should be prepared and the bus licensing scheme should be entirely reformed. Controlling and monitoring bus services, however, is difficult for the relevant agency since the number of bus fleets is considerably large and they run on the road. It is recommended to equip bus operators with a bus location system for controlling the planned trunk bus operation. The system also provides bus operation information for the regulatory agency, bus operators, and bus passengers. Introduction of the system enables bus companies to monitor bus operation and to apply a salary system for their drivers owing to easier control on bus fleets and drivers. Consequently, if income of drivers is guaranteed, the problem such as rejection of students' boarding could be solved.

[11] Refer to Technical Report Volume 6: Bus Transportation.

(10) Public Transportation Fare Policy Reform

Currently the public transportation fare is regulated for economy class in both railway and bus services to take affordability of low-income people into account. In fact low-income households cannot afford to pay higher fare level for their travels. If public transportation fare increases, they will suffer from the price increase significantly and they should sacrifice the other important expenses. On the other hand, public transportation operators have faced difficulties in providing sufficient level of service at such a low fare. The governments however sometimes cannot provide sufficient subsidies due to limited financial sources to fill the gap between actual operation cost and revenue. Therefore, it is proposed to provide subsidy directly to the low-income household rather than to transportation operators. Similar arrangement has been taken in the safety net program for the poor since the economic crisis. In turn, the governments allow higher level of fare which enables railway and bus companies to provide their services in financially healthy condition, although the methodology for identification of the transportation poor should be carefully studied. Another possible measure is reimbursement of out-of-pocket transportation expenses for employees. If the government allows business entities to deduct transportation allowance from the profit, the burden of business institution would be decreased. Impacts on government revenue as well as economic benefits should also be carefully examined.

5.3 RELATION WITH OTHER POLICIES

(1) Traffic Congestion Alleviation Policy

Transportation demand management, in particular car traffic restraint scheme, would shift private car users to public modes of transportation.

(2) Safety and Security Improvement Policy

At present, insecurity in public transportation vehicles and railway stations as well as bus shelters surely discourages people to use public transportation, so that improvement of security would lead to public transportation use.

5.4 PERFORMANCE GOAL

Specific targets are essential for guiding implementation of the programs proposed in the transportation master plan and for monitoring the progress of the program implementation.

Meeting the targets requires the implementation of policy measures proposed in the master plan such as improving public transportation system and employing transportation demand management.

Promoting Public Transportation Use Policy[12]

Performance Measures	Condition in 2002	Target in 2010	Target in 2020
Travel Time - Average travel time of public transportation passengers	58 min.	55 min.	50 min.
Accessibility - Number of jobs within 660-meter distance from railway stations - Number of jobs within 660-meter distance from busway shelters	0.6 million jobs 0 jobs	1.0 million jobs 1.2 million jobs	1.2 million jobs 1.2 million jobs
Convenience - Average number of transfers	0.98 time	1 time	1 time
Cost - (Average Public Transportation Fare per Trip) / (Average Income per Capita) Year 2002 = 100	100	139	83

[12] Refer to Technical Report Volume 10：Master Plan Evaluation.

6 TRAFFIC CONGESTION ALLEVIATION POLICY

6.1 OUTCOMES

1) Reduced vehicle operation cost of automobiles

2) Increased vehicular speed on the road network

6.2 STRATEGIES

(1) Efficient Use of the Existing Road Network

a. Construction of Flyovers and Underpasses and Connecting Missing Links

Construction of flyovers and underpasses would alleviate traffic congestion at bottleneck intersections. Construction of the missing link will significantly increase road network capacity and improve road system performance. The remaining sections of the Jakarta Outer Ring Road can be regarded as major missing links because it cannot function as a distributor if the whole sections are not connected. Since many other transportation facilities, for instance intercity bus terminals, have been developed or planned considering the JORR as a prerequisite, the construction of the remaining sections of the JORR is urgently required.

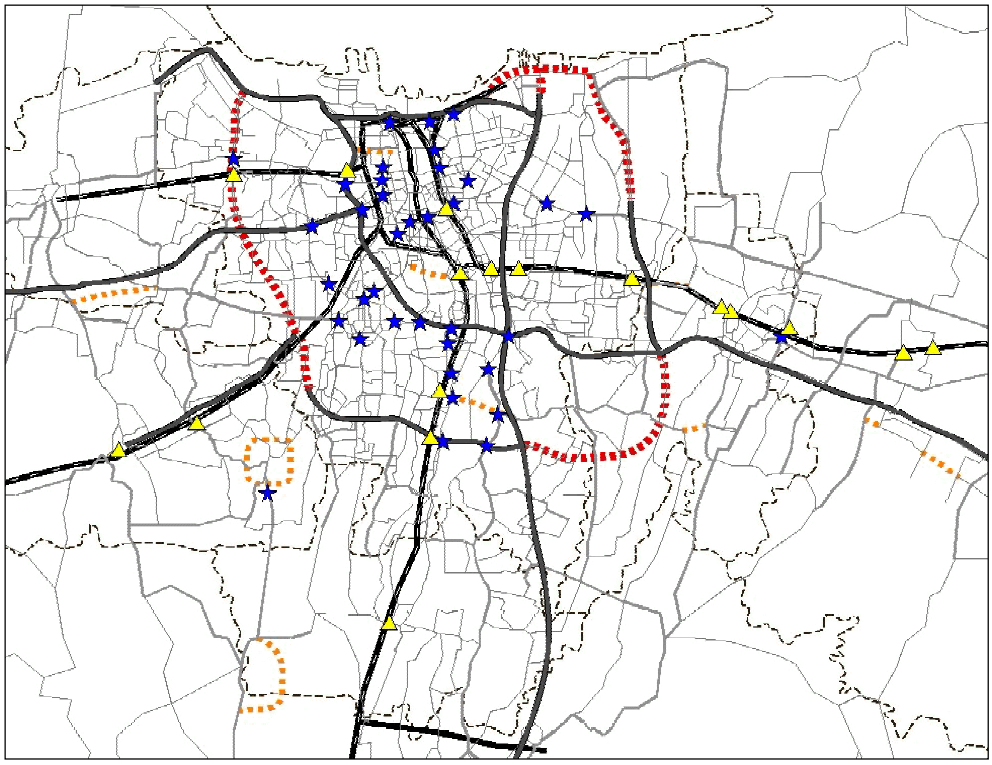

Figure 6.1 Construction of Flyovers and Underpasses[13]

[13] Refer to Technical Report Volume 4: Road Network.

b. Clearing of Illegal Occupants on the Road

Small buses stopping for passengers in the middle of the road should be strictly prohibited and streets should be cleared of vendors. The SITRAMP demonstration projects conducted in two locations at Citeureup, Kabupaten Bogor and Cikarang, Kabupaten Bekasi, proved the effectiveness of clearing illegal occupants and improvement of traffic control for alleviating traffic congestions.

(2) Transportation Demand Management

Transportation demand management (TDM) is inevitable to alleviate traffic congestion in the CBD because new road construction, or even road widening is very difficult in the CBD and will be limited due to physical constraints such as availability of land for road. In fact, flyovers and underpasses are major components for road network development in the short-term transportation development plan.

The road pricing scheme is a more promising scheme than the current “3 in 1” policy to alleviate traffic congestion owing to its flexible arrangement and the opportunity it affords to raise funds for transportation system development.

Improvement of public transportation is prerequisite for employing TDM.

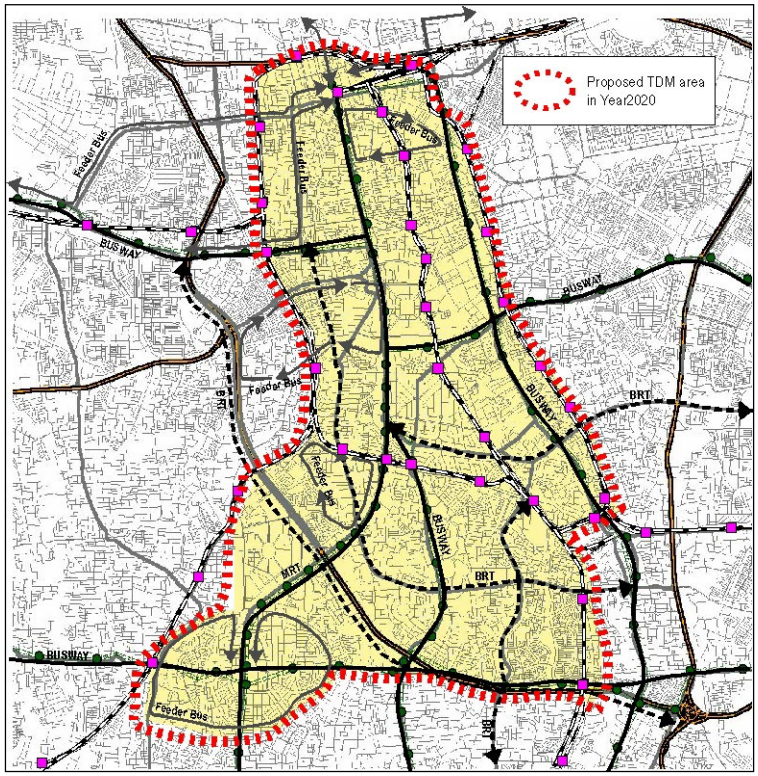

Figure 6.2 Proposed TDM Area in 2020[14]

[14] Refer to Technical Report Volume 7: Traffic Control, Management and Safety.

(3) Traffic Control Improvement

Traffic control improvement is an effective way to address traffic woes by optimizing utilization of the existing road facilities. Traffic capacity in the urban area is mostly reduced at intersections; road capacity at intersections should, therefore, be increased through improvement of geometric design and improvement of the traffic control system, such as a coordinated signal system or an area traffic control system. Other improvements in the traffic control field include U-turn control, review of right turn prohibitions, and the introduction of a transportation information system.

The demonstration project implemented in Citeureup revealed effectiveness of improvement of traffic management, which includes improvement of traffic circulation, minimizing road-side friction, and re-functioning of the existing bus terminal. The demonstration project has proven that significant improvement of traffic flows could be brought about at moderate budget. The lessons from the project suggest that a strong will of the local government is a key to successful implementation of a project and dissemination of the plan to stakeholders is also very important to get support and understanding from the community.

(4) Secure Lands for Road Development

Urban sprawl has progressed in suburban areas and many real estate type housing complexes have been developed. As a consequence, road development has become more difficult than in the past because the developed housing complexes disturb the continuity of the arterial roads. To deal with this problem, road network development plan should be established and right-of-way should be drawn on the map at scale of 1:1000.

(5) Separation of Heavy Vehicles from General Traffic

Separation of heavy vehicles from other types of vehicles leads to efficient way to develop road network since axle load varies according to the vehicle size and the required thickness of pavement depends on traffic volume of heavy vehicles. Separation of heavy vehicles would also reduce threat on safety of the residents living along major heavy vehicle corridors.

6.3 RELATION WITH OTHER POLICIES

(1) Public Transportation Use Promotion Policy

Promotion of public transportation use aims at shifting private mode users to public transportation and lead to less dependence on automobile use.

(2) Air Pollution and Traffic Noise Reduction Policy

Traffic congestion alleviation policy aims at reduction of car traffic demand; therefore,

it would lead to betterment of air quality and reduction of noise pollution caused by traffic.

6.4 PERFORMANCE GOAL

Alleviating Traffic Congestion Policy[15]

Performance Measures	Condition in 2002	Target in 2010	Target in 2020
Jabodetabek region - Average speed (km/hour)	34.5	33	30
Urbanized area - Road length at speed of 20 km per hour and more (km)	1,584	1,650	1,700
CBD - Road length at speed of 20 km per hour and more (km)	201	200	200

[15] Refer to Technical Report Volume 9: Transportation Policies and Strategies.