

Urban Public Transport in Penang: Some Policy Considerations

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Abstract: This paper illustrates the existing public transport policy framework at Federal, Regional, State, District and Council levels. It highlights specific policies which need to be taken into account at each level, as some remarkable improvements and integration are implemented on the public transport system in Penang. The useful information as found in this paper will subsequently be used to improve a policy-based assessment framework, which in turn serves to assess the performance of Penang public transport policy. This policy framework will attempt to repudiate the overarching need to come up with a final strategy, to assist in the delivery of policy objectives at all levels of the government. In order for the state's urban public transport to be improved, it must have the support of the public, the politicians, and co-operation from all agencies including the Federal government itself.

Keywords: Transport Planning, Public Transport and Integration Policy, Governance Structures

1. INTRODUCTION

In most developing countries, public transportation is a means for making journeys to work, school, shops and other daily activities. It is also a means of providing greater freedom, access, opportunity and choice for those 'financially-challenged' living in these urban areas and those who simply cannot afford to have their own private vehicles (Iles, 2005). The public bus service in Malaysia for example, is often connoted with the 3Cs catchy words, Convenient, Comfort and Cheap. Commuters seek convenient and comfortable services at cheaper and affordable prices. While the 3Cs are becoming the major drive for operators of public bus transport, it is only ironic that the quality and efficiency have often been sacrificed (Suria H., 2012).

The process of urbanization, together with the increase in population, has contributed to the expansion of many existing urban areas (Angela H., 2005). This suggests that the mobility rates will be exceptionally higher in larger or principal towns compared to the smaller ones. Several attempts have been made to draw up plans for urban transport in many Malaysian towns. However, the existing public transport phenomenon which encourages private car ownership has led to a declining modal split ratio for public transport (Barter, 2004).

The decline in the use of the public transport is partly due to the fact that public transport is regarded as a socially degraded mode of transport. It is quite true, as the conditions and services of public transport have been deteriorating, despite some incentives and fragmented attempts introduced by regulatory bodies to bring back its scarred reputations. The absence of a sole responsible body for the planning of public transport has been found to be another issue which contributes towards the present state of deficiency.

This paper attempts to review some urban public transport policy issues (related to planning, licensing integration and urban development) in the hope to generate appropriate policies at the strategic and local levels. The degree of demand for public transport to work, among others, depends on several factors including urban expansion. As indicated by Burton M.J. (1972) and Ibrahim W. (1991), urban expansion means an increase in journey length which has been found to influence the modal choice of those persons making that journey. The more extended the urban areas become, the further the community distances will be.

Other factors were also contributing towards longer time used when travelling by bus. In Penang for instance, the high traffic volume and congestion in the city center, as well as the main roads which are particularly long, have been found to be the main factor contributing to this problem. In Georgetown, the problem was due to, among other thing, the existence of informal activities along the main roads and the variable road widths. The problems with urban public transport as pointed out earlier will continue, unless a proper organization for its planning is introduced.

2. PUBLIC TRANSPORT IN PENANG

The state of Penang lies on the northwest coast of Malaysia, to the south of Kedah and to the north of Perak. It comprises of two parts, Penang Island and Seberang Perai, with Penang Island connected to the Mainland via the Penang Bridge and the Georgetown – Butterworth ferry. Connections to the remainder of Malaysia are provided via the North-South Expressway, the Butterworth – Kulim Expressway, through Penang International Airport and to a much lesser extent, through the Butterworth – Kuala Lumpur rail corridor.

The state is divided into five administrative districts (*refer to Figure 1*), and at local level, the state is run by two Municipal Councils, namely the Seberang Perai Municipal Council, or Majlis Perbandaran Seberang Prai (MPSP) which administers the three mainland districts and Pulau Pinang Municipal Council which administers Penang Island. George Town itself, although only part of the MPPP area, has an exclusive status in terms of highway ownership.

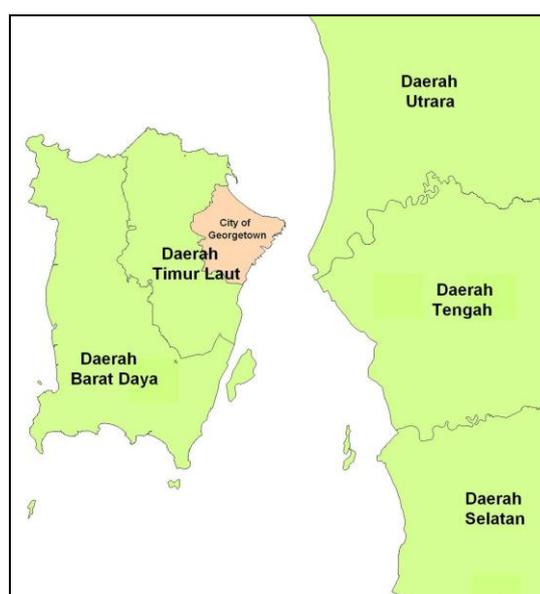


Figure 1. Map of Penang with divided into five administrative districts.
 Source: GeoPortal Department of Town and Country Planning, Penang Branch (2010).

The State of Penang covers 1,065 square kilometres, with the island occupying 310 square kilometres and the mainland occupying 755 square kilometres. Current land uses within Penang State are shown in *Figure 2*. It can clearly be seen from these figure that the most of current development on Penang Island is concentrated along the eastern and northern seaboard. Georgetown forms the commercial hub of Penang Island and is the centre of Government for the state. Its immediate suburbs include Gurney Drive, Air Hitam, Jelutong and Gelugor, all of which form one continuous urban area.

Butterworth, the most significant town on the Mainland, is the only port of significance on the northern Malaysia / southern Thailand western seaboard. As such, it plays a major role as an international gateway access for the region. Industry-based development on Penang Island is primarily concentrated on the Penang Development Corporation's (PDC) Bayan Lepas Industrial Park. Meanwhile, industry-based development on the Mainland is again, primarily concentrated on the Penang Development Corporation's existing parks at Mak Mandin, Seberang Jaya, Prai, Bukit Tengah and the newly developed Bukit Minyak Industrial Park.

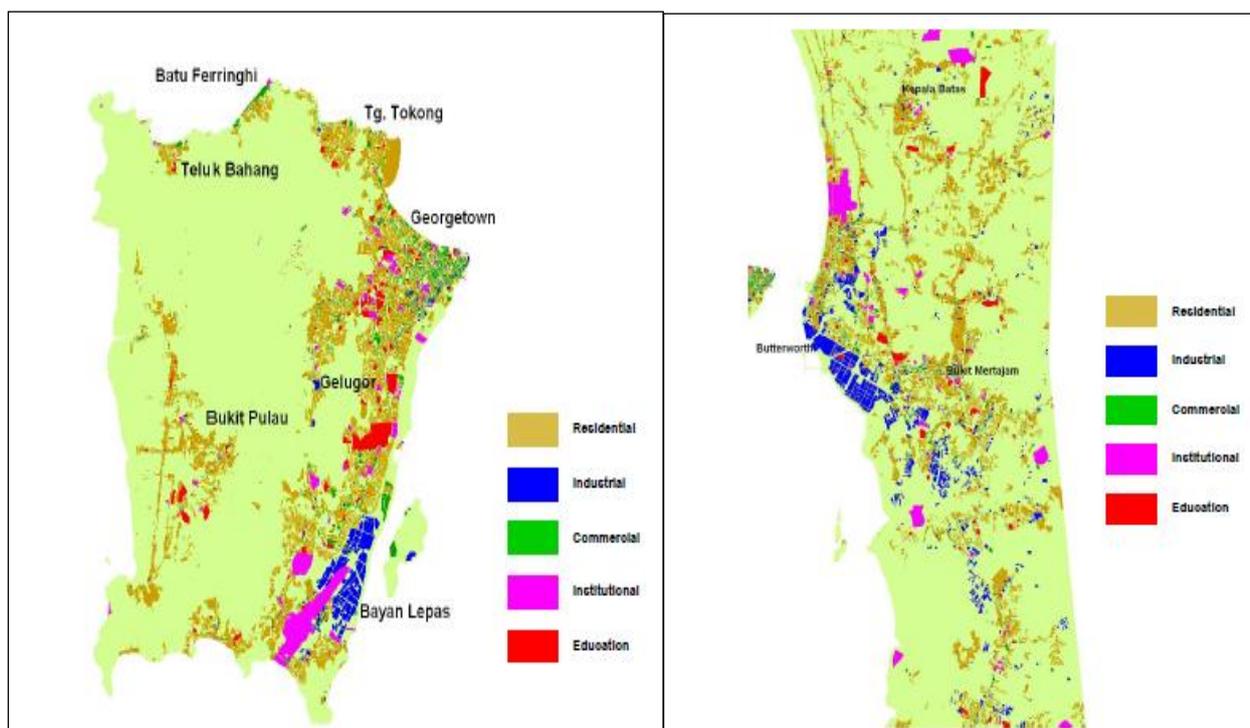


Figure 2. Current Residential and Employment Land Uses in Penang
 Source: adapted from Penang Structure Plan 2020, Penang Draft Local Plan 2020
 and GeoPortal Department of Town and Country Planning, Penang Branch (2010).

The recent 2010 population and housing census have recorded an overall population of 1.52 million people setting up residence in this Island state. Some 704,000 live on the Penang Island and the remaining 816,000 reside on the Mainland (sourced by the Department of Statistics, Penang Branch). Looking at the population's density level, it indicates that the southern suburbs of Georgetown, parts of Bayan Lepas, Butterworth and Bukit Mertajam have the highest concentrations of population (*refer to Figure 3*).

Based on the record established by the (Road Traffic Volume Malaysia, 2010), 2.1 million vehicles were registered in Penang up until 2010 and became the third in Malaysia to own more than 14% from the total number of registered vehicles in the country. In 2010, the number of new vehicles registered in Penang was 111,882. Meanwhile, in 2009 there were 92,320 vehicles and in 2008 there were 109,033. This demonstrates that there is an increase of private vehicles in 2010 as compared to the preceding years.

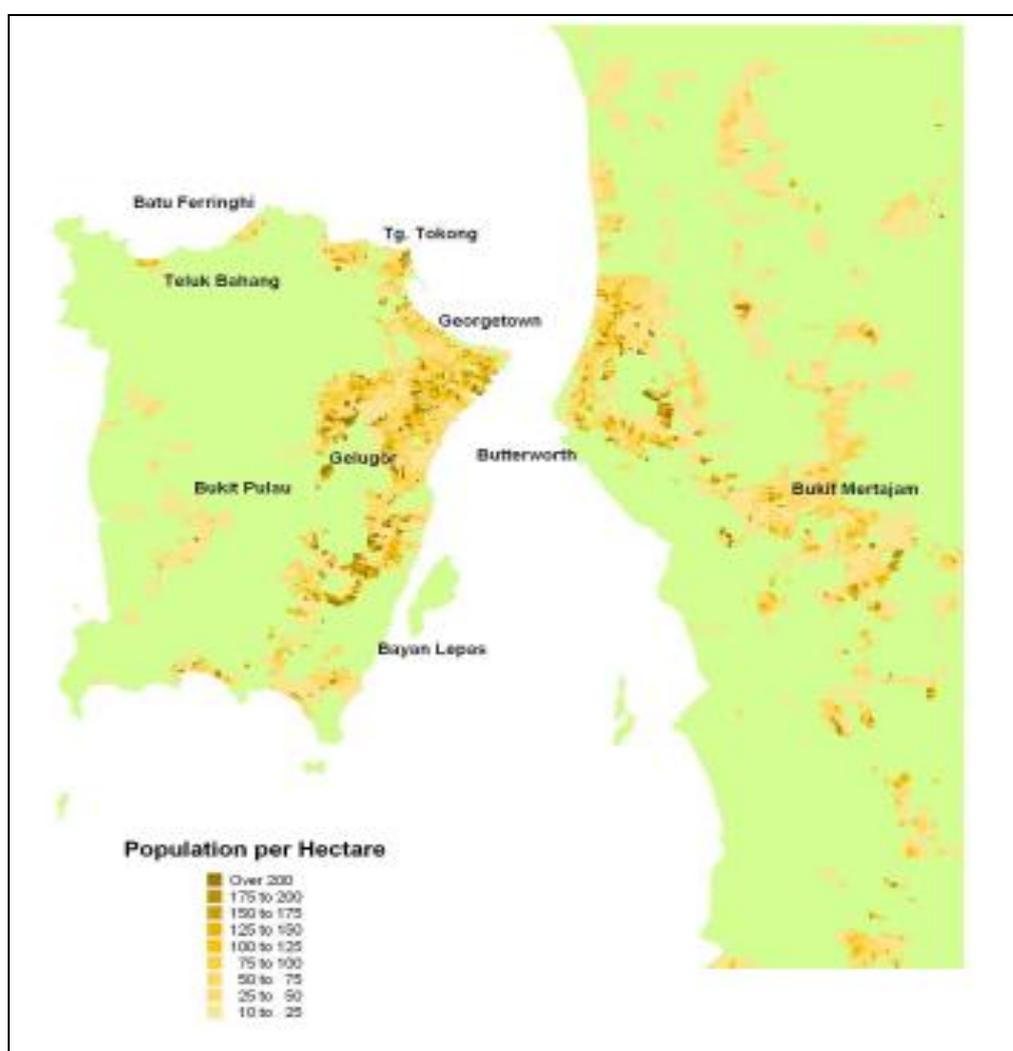


Figure 3. Current Population Dencities in Penang
Source: GeoPortal Department of Town and Country Planning, Penang Branch (2010).

Figure 4 and Figure 5 shown that the Structure Plan 2020 goes on to identify that this network such include enhancement of road linkages and upgrading and provision of new public transport linkages, with new development being integrated to these new transit facilities by adopting transit oriented development principles. The most significant committed change to the current highway network will be the opening of second Penang Bridge in 2013. This second Penang Bridge will link Bayan Lepas on Penang Island with Batu Kawan on the Mainland, thus providing a new southern Gateway to the island.

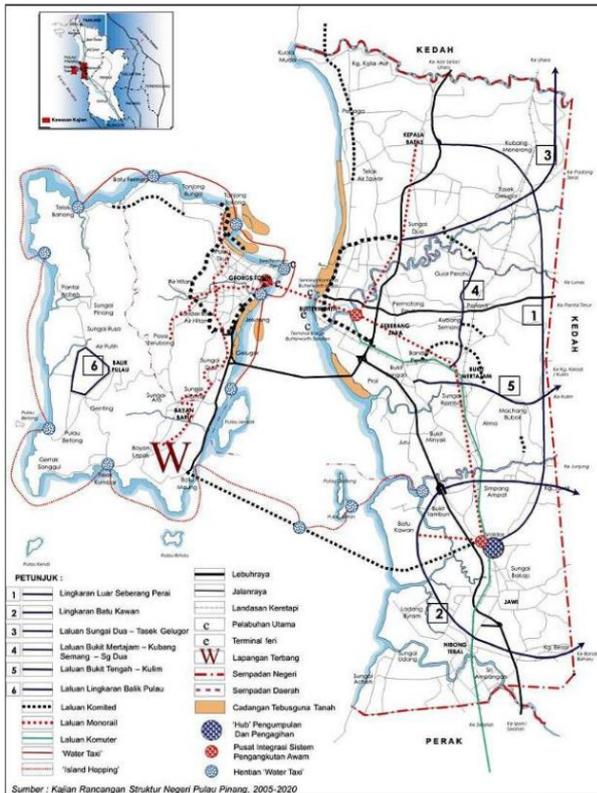


Figure 4. Expected Future Transport Linkages in Penang, Source: adapted from Penang Structure Plan 2020

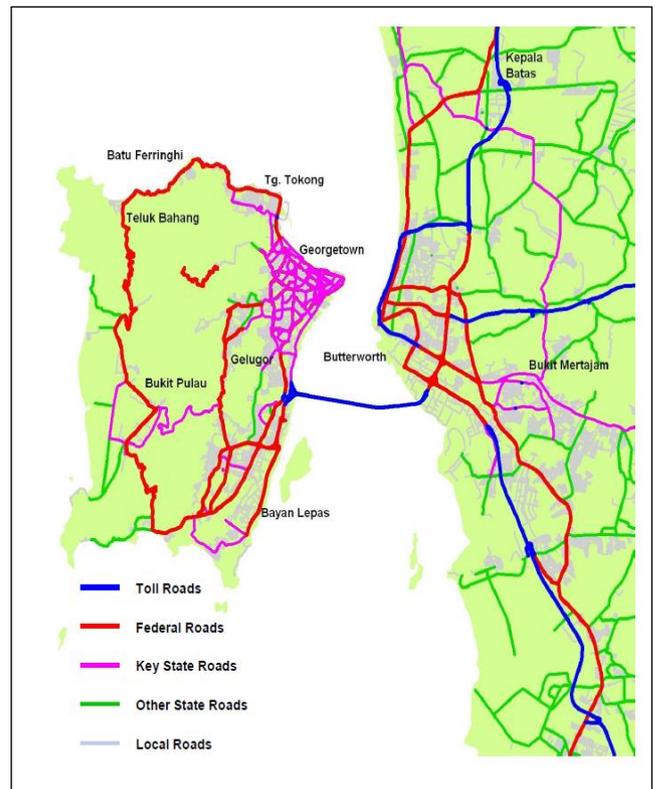


Figure 5. The Road Network in Penang Source: GeoPortal Department of Town and Country Planning, Penang Branch (2010).

According to the information from the Public Transport Unit (MPPP and MPSP, 2011) and Suria Haron (2012), all public transport bus services on Penang Island are provided by Rapid Penang, whereas on the mainland, Rapid Penang services complement five other operators. The vast majority of Rapid Penang’s 27 Penang Island-based local bus services are radial in form, starting from Weld Quay in Georgetown and extending to Komtar (also in Georgetown). Other key terminal locations on the Island are the Express Bus Terminal in Sungai Nibong, Penang International Airport and the Balik Pulau Bus Terminal. On the mainland, Rapid Penang operates a total of 15 local bus services. All but four of these from Penang Sentral in Butterworth, link Butterworth with other major towns on the Mainland (refer to Table 1 and Figure 6).

No.	Bus Company (stages of bus)	2011
1.	Central Province Wellesley Transport Co. Sdn Bhd	21
2.	United Traction Co Sdn Bhd	17
3.	Syarikat Rangkaian Setia Berhad	16
4.	Lean Hock Bus Co. Sdn Bhd	10
5.	Bagan Town Bus Service Sdn Bhd	6
6.	Syarikat Kendaraan Juara (Pulau Pinang) Sdn Bhd	4
7.	Sri Negara Transport Service Co. Sdn Bhd	4
8.	Kiara Tuah Sdn Bhd	4
9.	Min Sen Omnibus Co. Sdn Bhd	2
10.	KGN-HIN Bus Company Sdn Bhd	2
11.	Milan Travel Sdn Bhd	1
	TOTAL	87

Table 1. Licensed Bus Operators in Penang State
 Source: MPPP & MPSP, (2011) and SPAD, (2011)

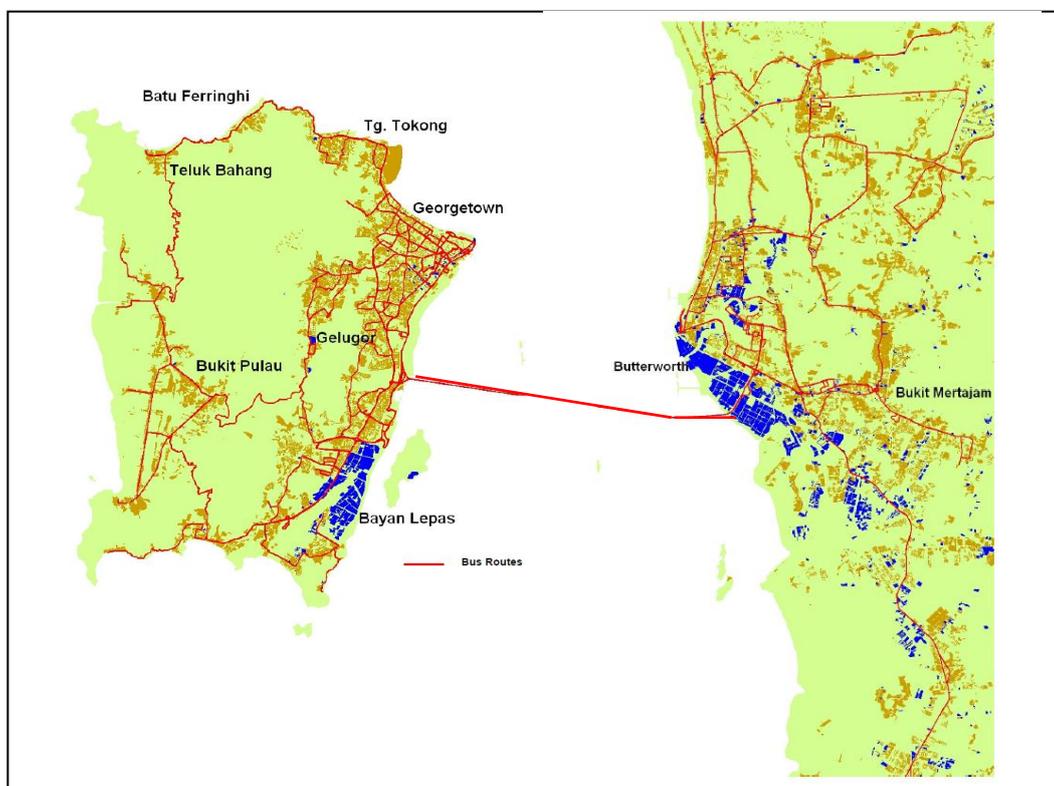


Figure 6. Bus Route Corridors on Penang State
 Source: GeoPortal Department of Town and Country Planning, Penang Branch (2010) and SPAD (2011).

A new fare structure was introduced in August 2009 (Transport Ministry, 2009), in line with the government's announcement and intention to improve the public transport system. This announcement has standardised the fare rates at RM 0.94 for the first two kilometres and RM 0.094 for each subsequent kilometre. In Penang, Rapid Penang has used these national fare rates to develop their own zone-based fare structure. Meanwhile, a normal fare-paying passenger is one who is not classed as a senior citizen, physically disadvantaged (OKU) or a uniform-wearing school child; three groups which are entitled to get travel discounts. (Rapid Penang, 2011).

For ticketing system was implemented to allow passengers to travel on the buses using a common Rapidpass Touch 'n Go (TnG). The new ticketing system requires card users Rapidpass TnG touching card scanners on entry and before alighting from the bus, and requires consumers to have a minimum deposit of RM3 value before traveling. (Rapid Penang, 2011).

In Penang, there is a hierarchy of passenger facilities which is likely to consist of an integrated transport terminal (these are strategic hubs which cater for multi-modes of travelling and these may include Rail services; Inter-city Express services; local bus services and taxi provision), inter-urban terminal, bus terminals and hubs, single stops and bus stops. Within Penang, it is the main duty of the MPPP and MPSP to provide the necessary infrastructure, that is needed to facilitate the operation of bus services. In reality however, such provision is divided between private land owners, Rapid Penang and the two municipal councils. To some extent, both MPPP and MPSP have developed this function, particularly in the case of terminals, due to the lack of available funds (Public Transport Unit, MPPP & MPSP, 2011).

A key part of the current public transport network is the ferry linkage between Georgetown and Butterworth. This ferry, with the aim of meeting the increasing car traffic demands, also caters for passengers travelling on foot. Given the remote locations of both the Weld Quay and Butterworth ferry terminals, most passengers using this ferry facility can reach the terminals by bus, interchanging at Weld Quay and Penang Sentral bus terminals. The fare for on-foot travellers is RM1.20 for adults and RM0.60 for children (again only payable in the westbound direction).

Long distance inter-city coach services from within the state primarily operate from Penang Island's Sungai Nibong Express Bus Terminal and from Penang Sentral in Butterworth. Sungai Nibong Terminal bus services operate to major cities with primary destinations namely Kuala Lumpur, Kota Bharu dan Padang Besar (Thai Border). Meanwhile, Penang Sentral covers inter-city services to the cities of the neighbouring states such as Alor Setar (Kedah), Parit Buntar and Taiping (North Perak). Rail services from Butterworth cover Padang Besar on the Thai border and Ipoh and Kuala Lumpur at the south. Currently, however, the track to the north of Ipoh is of a single-track status and services are very limited, with one northbound and three southbound trains serving Butterworth each day (SPAD, 2011).

Currently, there are three types of taxis operating within the State, these being Budget Taxis, Blue Executive Taxis and Limousine-based Airport and Hotel Taxis. In order to provide a complementary local public transport service (for those residents who do not have adequate access to local buses) they would mainly resort to the Budget taxis that are expected to fulfill this role. In reality however, Budget taxis within Penang generally target the more financially-ready tourists and business traders, rather than local residents (SPAD, 2011). As a consequence, almost all Budget taxi operators refuse to operate on a metered fare structure and tend to target passengers at a limited number of prefixed locations (hotels, bus terminals and shopping plazas) instead of 'cruising' the streets or operating via an efficient 'radio call' system. On Penang Island, in the context of the relatively good bus-based public transport provision, this is less of an issue than it might otherwise be. It still however, results in taxis being generally unavailable or unaffordable to those who might otherwise use them, thus encouraging car usage and car ownership. To understand these issues further, this chapter sets out a review of the current taxi regime (SPAD, 2011).

3. POLICY AND STRATEGY OF PUBLIC TRANSPORT

As would be expected, it is found that there is a significant level of synergy between policies at each level of the Government. It is also found, however, that (as again might be expected) that the policies at the Federal level tend to be more general in form than those adopted at Regional, State and Local levels. Such an achievement is best secured through the adoption of a cascaded policy framework structure, commencing firstly through assessing performance against a series of over-arching Federal policies and then refining the framework, where necessary, to take account of specific and more detailed Regional, State and Local level policy objectives (refer to *Figure 7*).

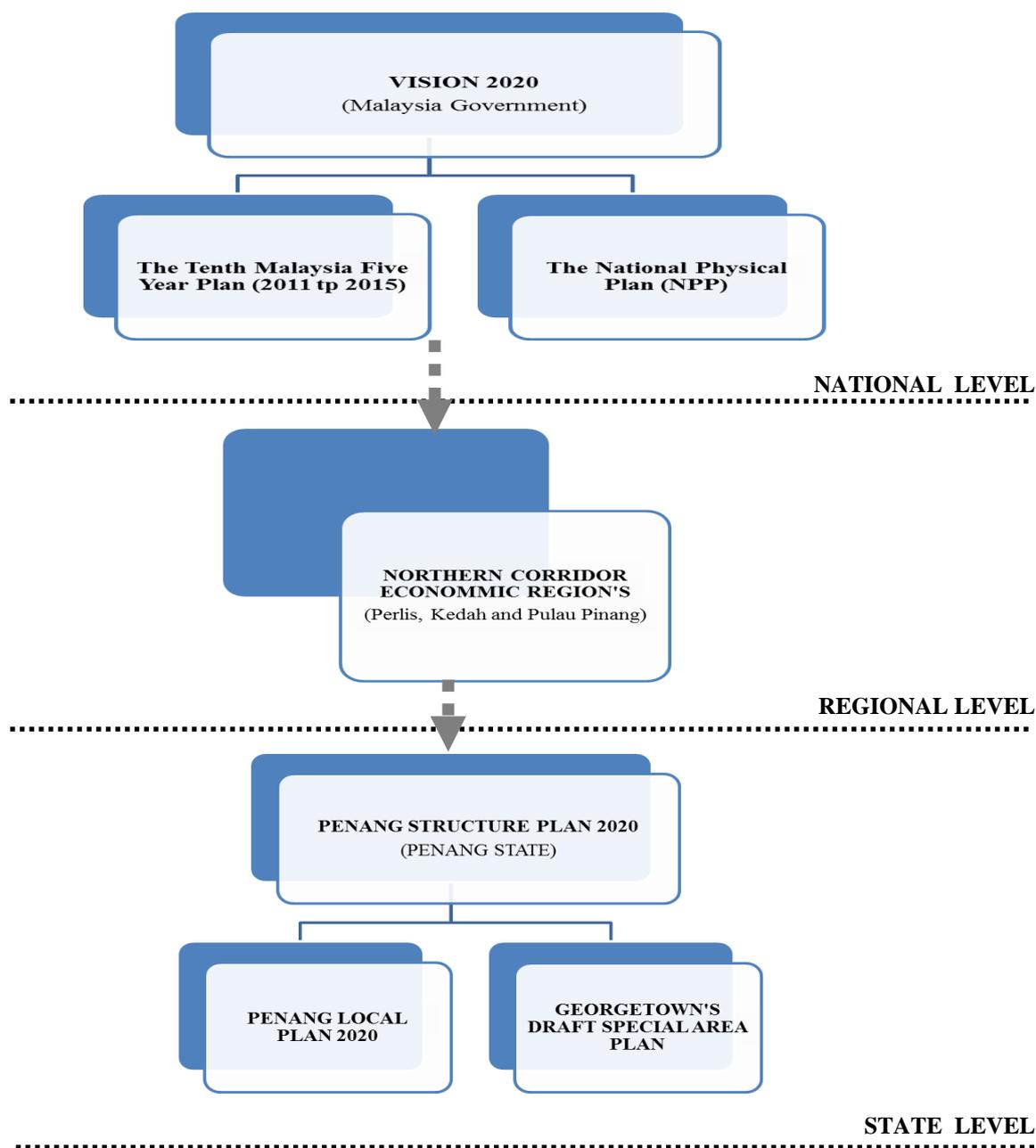


Figure 7. The Framework of Implementation in the Public Transport Policy.

3.1 Policy at Federal Level

At Federal level, a nationwide approach to the implementation of transportation policy over the next five to ten years is set out in a number of key documents. The most relevant of these being Vision 2020, The Tenth Malaysia Five Year Plan, 2011 to 2015 and The National Physical Plan (NPP). In addition, the Land Public Transport Commission (SPAD), as the Federal authority for promoting the improvement of Public Transport within Malaysia is in the process of finalizing an overall policy framework for the development of State-level Transport Plans.

The overall vision of the Malaysian government is laid out in Vision 2020. This states that the aim of government is that the nation, by the year 2020, should become: *“fully developed along all the dimensions: economically, politically, socially, spiritually, psychologically and culturally.”*

The strategy to achieve this vision is based on the achievement of a high level economic growth through accelerated industrial development and concentration on an export-based manufacturing sector. This collateral development will involve the accelerated development of science and technology. It will also involve an accelerated development of the service sector, with emphasis on ICT. The private sector is expected to provide the machinery of growth to achieve this vision.

The Tenth Malaysia Five-Year Plan (2011 to 2015) provides a road map for moving towards this vision during the period between 2011 and 2015. Key to this grand-scale plan is the adoption of ten themes aimed at promoting the country's future development. A policy that is of priority in the Tenth Plan will be the enhancement of the live ability of cities, with initiatives being identified to address crime and improve public transportation in major urban centers. In particular, the 10th 5-Year Plan states that specific strategies will be implemented in conurbations such as George Town, targeting towards improving liveability and connectivity and further strengthening localised industrial clusters such as the E&E cluster in Penang. Major liveability initiatives will include the enhancement of public transportation. Coupled with this, is the need to improve connectivity and linkages between these cities and their hinterland and rural areas, so as to facilitate the movement of resources, goods and services, and people which serve as critical inputs to the development of cities.

The National Physical Plan (NPP), published in 2005 and is covering the period up to 2020, is in pursuit of translating the socio-economic objectives of Vision 2020 into a spatial dimension, so as to guide the geographical distribution of national objectives among the states and, through the states, among the local areas. The National Physical Plan produces a series of principles that are to be used to guide future planning policy.

Overall, the National Physical Plan establishes some 36 policies for influencing future development patterns. The most relevant of these, in the context of developing a future public transport strategy for Penang, are in recognition of the inter-relationship between land use and transport, an integrated national transportation network shall be established, an integrated high-speed rail system shall be established, the national road network shall be further extended for regional travel and local access, major airports and seaports shall be developed according to their complementary functions to enhance the nation's economic competitiveness and to facilitate tourist arrivals, the Transit Orientated Development (TOD) concept shall be promoted as the basis of urban land use planning and ensure the viability of public transport, In all major urban centers, an integrated public transportation system shall be established and NPP shall provide the spatial framework for the delivery of integrated infrastructure services at the national and regional levels and to the main conurbations.

3.2 Policy at Regional Level

At regional level, policy is set out within the Northern Corridor Economic Region's Blue Print document. At higher level, the Economic Region has set itself a vision for 2025 that is premised on the region becoming:

'a world-class economic region of choice by 2025 to invest in, to live in, to work in, to acquire knowledge in, to visit and to raise families in a safe, clean and sustainable environment'.

By providing a conducive business environment, the Vision aims to expand and re-focus on the area's core business activities and to encourage added investment into the private sector while at the same time empowering the area's population and raising its living standards. These aims are encapsulated in a series of statements that clarify the mission of the Economic Region. It has been identified that a key component in the achievement of this vision and its associated mission will be the need to improve transport facilities. In particular, it has been identified that there is a need for the transportation system to provide:

- 1) Good mobility for goods and people – including the working population and tourists –by providing an efficient public transportation system;
- 2) Smooth travelling between NCER's industrial parks, agricultural food zones, coastal food zones, urban centers and key logistics points (i.e. ports and air cargo hubs) – as well as residential areas where employees are located;
- 3) Good connectivity between agricultural production areas and the associated agricultural markets; and
- 4) Improved connectivity, both within the region and across the region, among other parts of peninsula Malaysia and other international countries.

In reviewing these objectives, they are for the most part, closely aligned with those of the Federal Government. As such, the national objectives and sub-objectives established by the SPAD for the purposes of assessing the appropriateness of State Transport Plans are also suitable for use in assessing the achievement of these Regional Objectives. In some areas, however, the regional objectives, as outlined by NCER, are much more specific than those contained within the SPAD national framework. In particular, the regional objectives specifically identify agriculture, manufacturing and tourism as areas where economic growth should be given emphasis. In addition, they also identify that there is a strong need to strengthen the institutional and implementation capacity at regional level (SERI, 2015).

3.3 Policy at Local Level (Penang State)

At both State and Local levels, future development policy is set out within the Structure Plan and the Draft Local Plans, with each needing to respect the higher level policies set out at national and regional levels. To fulfill its mission, the Penang Structure Plan seeks to increase the State's competitiveness and value-added economy, build a knowledge-society (k-society) and empower a vibrant culture, promote socio-economic development that is fair and balanced, as well as one that fosters the spirit of caring and unity, preserve environmental balance and increase the quality of life, practise and develop good administration and strengthen implementation capacity.

In order to achieve this mission, the Plan sets out a series of requirements that need to be met. These involve the need to enhance economic competitiveness, strengthen and diversify the industrial sector, rejuvenate the tourism sector, modernize the primary sector, promote human resource development, enhance social development and quality of life, develop the

State's social infrastructure, ensure ecological and environmental balance and promote good administration. These requirements are then translated into a set of twelve objectives. With respect to the tenth objective (i.e. to strengthen the transportation and communication system), the Plan seeks to:

- 1) Create an integrated public transport system through significantly improving the current public transport offering, perhaps through the creation of new rapid transport services such as the monorail, so as to provide a main mode of the public transport system that is cheap, safe and reliable;
- 2) Provide a balanced and comprehensive road network through the building of new roads and the upgrading of existing roads, so as to increase the accessibility of the entire State of Penang and to link Penang with other Peninsula States and neighbouring countries while also providing wider spaces for pedestrians, bicycles/rickshaws in town centers, other main centers and in civic and other well-populated centers locations; and
- 3) Promote Penang as an international transport and communication hub through the development of Penang Port, Penang International Airport and the provision of newly upgraded rail facilities.

Again, many of the objectives contained within the State Structure Plan have mirrored those objectives already identified at the Federal and Regional Levels. The State Structure Plan is, however, much more explicit in its definition of the type of future transportation system that is envisaged. In particular, it outlines some specific goals which are to:

- 1) Create an integrated public transport system through significantly improving the current public transport offering;
- 2) To create a complementary, balanced and comprehensive highway system, so as to increase road-based accessibility throughout the State; and
- 3) To provide for the needs of pedestrians, cyclists and rickshaw cyclists within town centers, other main centers and in civic and other centers locations.

The principles, aims and objectives contained within the State Structure Plan are delivered to the Local Plans of each of the State's district areas. There is a single Local Plan for the Penang Island and three District-based Local Plans for the Mainland. Within the central area of George Town, a UNECSO heritage area has been designated.

The policies and objectives that relate to this designation are formulated within the Georgetown's Draft Special Area Plan. Create a dynamic and historic living city. A city that is capable of accepting changes that come with the contemporary epoch, and assimilating these new dynamics into its existing historically-built fabric, injecting new life into the city without compromising the integrity of its outstanding universal values. A city that safeguards and protects both its cultural and built heritage maintains and strengthens the integrity of its components and builds its values, with close adherence to heritage. A city with vibrant, established communities grounded in their cultural traditions with access to amenities for living, working and engaging in recreational activities.

With respect to the transport, the Plan has specifically identified that traffic activities and traffic congestion pose a particular threat to the achievement of the wider aims of the Draft Special Area Plan and to address this, the Plan suggests that multiple series of short, medium and long term objectives should be adopted for the management of access within the heritage area. These are the proposed short term, medium term and long term objectives:

- 1) Short-Term Objectives:
 - *address local issues relating to, or caused by, traffic congestion*
 - *encourage and improve public transport travel*
 - *manage traffic demands*
 - *maximize the existing transport network*
 - *adopt universal access principles and increase pedestrian connectivity within the World Heritage Site*

- 2) Medium-Term Objectives
 - *promote transport policies and improvements which minimize environmental impacts*
 - *ensure that the State Transportation Master Plan is integrated with the aims of the World Heritage Site*

- 3) Longer-Term Objectives
 - *moderate private vehicle usage, so as to have the main transport used shifted to more sustainable modes of transport such as public transport, walking and cycling*
 - *make the World Heritage Site universally accessible*
 - *fully integrate the Inner City areas of the World Heritage Site with the Waterfront.*

While specifically addressing George Town, the overall objectives of the Draft Special Area Plan are again generally compatible with those that have been outlined within the National, Regional and State /Local policy. The particular needs of the UNESCO area, however, place a much higher emphasis on:

- 1) moderating private car usage;
- 2) encouraging public transport usage;
- 3) creating an environment that is conducive with pedestrian and cycling activities;
- 4) while simultaneously;
- 5) maintaining / improving the overall levels of accessibility to the area;
- 6) minimizing the environmental impacts of travel-related activities within the UNESCO area; and
- 7) integrating the Waterfront area with the wider UNESCO area.

4. INSTITUTION AND ORGANISATION OF PUBLIC TRANSPORT

In general, the Federal Government deals with national transportation plans, transport policy guidelines and matters related to the overall transport administration. Local Government plans execute and administer road networks and urban public transport improvements. In the same vein, there are many other government and private organizations involved in urban transport in Penang.

4.1 The Federal Government

The Economic Planning Unit (EPU) formulates the five-year Malaysia Development Plans, evaluates and identifies the major transport projects including the urban transport development. Within Penang, the State Secretary (SUK Penang) and local authority co-ordinate the various development plans for this Island State. *Figure 8* shows the administrative organisation of the public transport system in Malaysia.

The Ministry of Works plans, designs and constructs national infrastructure including roads, airports, port and jetties. The Highway Planning Unit (HPU), under this Ministry, plans the national road network system. Other major responsibilities that fall under this ministry are national highways and toll expressways, in which the latter is supervised by the Malaysian Highway Authority. Road Transport Act 1987 (Act 333) powers are granted to the Road Transport Department, mayors of the local and city councils and traffic wardens to exercise the powers conferred and to perform the duties imposed under the Act. The Ministry of Transport administers inter-alia air, maritime and surface transport systems. It also controls motor vehicle registrations, the issuance of driving licenses and road transport safety issues.

The Land Public Transport Commission (SPAD) has the overall responsibility for promoting public transport within Malaysia. As part of this responsibility, the SPAD is in the process of developing a National Land Public Transport Framework under which individual States will be required to develop the State level Transport Plans. These State level Transport Plans will be multi-modal in format and they will form a basis on which the SPAD will evaluate the merits of individual proposals for promoting public transport within each State.

As part of this methodology, the SPAD is likely to require that firstly, all new public transport proposals are developed within a holistic multi-modal environment, where the role of each mode is considered and each is given a specific function within an overall transportation network hierarchy. It is also likely that an emphasis will be placed on the need to maximize the efficiency of the existing transport system, prior to the consideration of the new infrastructure. Aligned with this, there will also be an expectation that existing institutional structures are enhanced, so that the existing infrastructure can be manipulated the best way possible by way of improving the prevailing regulatory and enforcement regimes.

In assessing the need for new infrastructure and investment the SPAD is expected to obtain from each State the performance assessment of its proposals against a common set of national objectives and sub-objectives. These SPAD objectives and sub-objectives encapsulate both the specific objectives of the SPAD and the wider objectives of the Federal government as have been contained within the 10th Malaysia Five Year Plan and the National Physical Plan.

4.2 The Local Government in Penang

Local governments in Penang, which consist of the State Secretary (SUK Penang), Penang City Council and Seberang Perai City Council, undertake the tasks of planning, constructing and maintaining the local transport facilities within each area (*refer to Figure 9*). The function of the Penang State Secretary Office is to ensure that the formulation and implementation of policies, strategies and development programs are carried out in a sustainable and resilient manner to generate progress. The function of the local government covers all aspects of the urban transport management including the planning, design, construction, operation and maintenance of road projects. It is also involved in traffic management and development.

However, in practice, the function of local governments is limited. This is mainly due to the fact that the Federal Government is in charge of planning and implementing large projects, while the local government undertakes the planning and implementation of smaller projects. The Royal Malaysian Police is responsible for enforcing traffic rules and regulations related to road traffic together with traffic control work.

Generally, in certain areas there are clear jurisdictional functional overlaps, while in other areas, there is only redundancy. In some other areas, there seems to be seemingly pointless isolation of authority. Through the years, these overlaps, redundancies and isolation of authority have resulted in the haphazard development of the public transportation infrastructure and facilities. There has been, until now, no government organization that has been appointed to deal with the transportation problems of the entire Penang state.

This has resulted in the Federal Government agencies such as the EPU, the Ministry of Transport and Ministry of Works undertaking transport plans for Penang. Their basic stance is the view point of the national level planning. The local governments on the other hand, have been focusing on the co-ordination efforts with one another.

The lack of a clearly defined government agency to oversee and supervise state has the potential to create conflicts between the Federal Government plans and implementation of these agencies by the local authorities. If the new Act were to be formulated, the said power which is now vested in the SPAD will be incorporated into the new Act. Given the situation, the new Act will automatically embrace the licensing area collectively. The overlapping enforcement powers clearly expressed to be under the Road Transport Department would need to be addressed. Station design, taxi and bus stations within the Penang State boundary, will all be placed under the proposed authority. The planning approval process of these buildings is also another source of revenue to the Local Government. This could potentially be another problem area for the proposed authority.

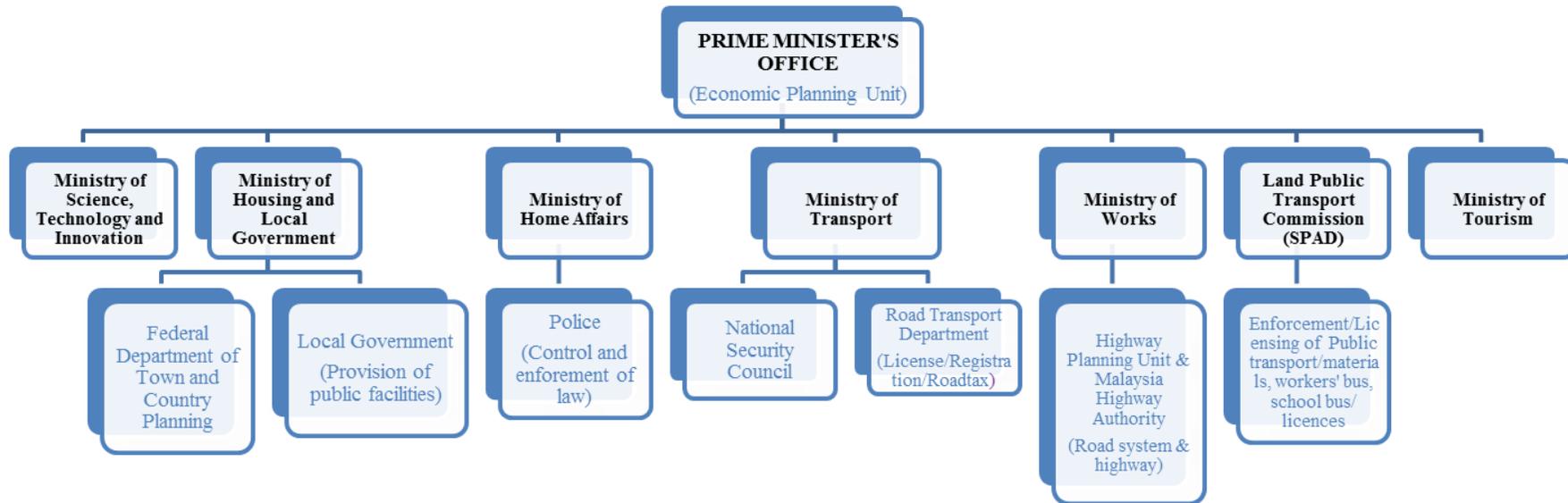


Figure 8. The Administrative Organisation of the Transport System in Malaysia
 Source: PEMANDU (2011) and Zulina Zakaria (2003)

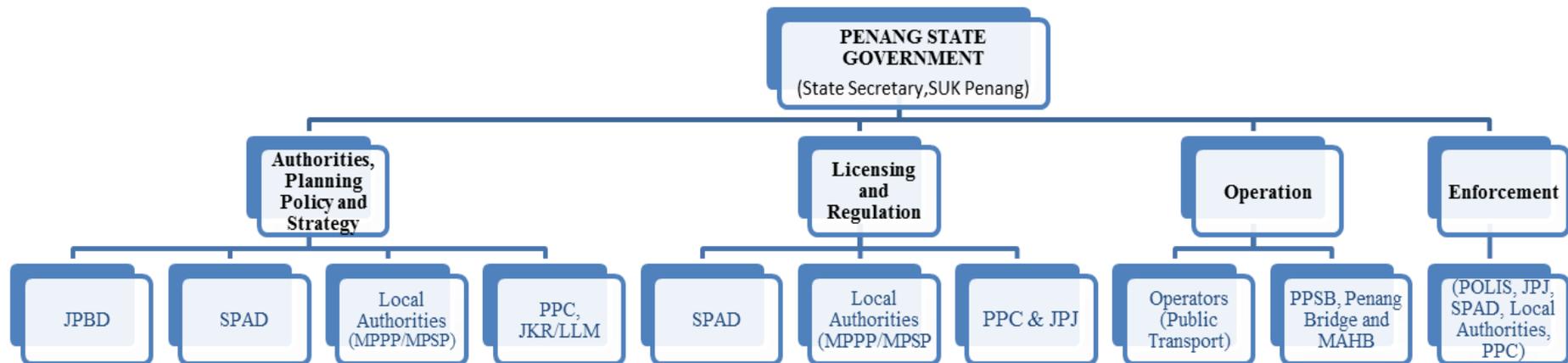


Figure 9. The Government Agencies at State Level and stakeholders involved in the Policy, Planning, Licensing and Regulation, Operation and Enforcement of Public Transport in Penang
 Source: Penang State Secretary, (2012), Penang City Council (2011) and Seberang Perai City Council (2011).

5. PLANNING AND LICENSING

There are many agencies at the central level involved in the public transport. The involvement of too many authorities with unclear scope and function is another source of the problems. The regulatory bodies including local authorities can produce plans, but without an agreement or clearer definition of their respective jurisdiction the plans are likely to be a failure.

The provision of network such as routes and terminals continues to be influenced by the market forces rather than being planned and regulated by the connected bodies. In many instances, the bus operators themselves independently initiate such provisions which are rarely in accordance with proper principles of transport planning. Such practice will certainly end up with poor public transport networks which in turn contribute towards the unattractiveness of the public transport. Incidentally, one has not noticed any significant expansion of the private undertakings. The great shift from the government to private undertakings in other Malaysian towns reflects not only the importance of private organizations as a source of public transport, but also demonstrates the degree of reliance of the government on the private sector in providing public services.

The over-dependence on private sectors to provide services to the public has made privately-owned urban public transport a dominant feature in Malaysian towns and cities. Private involvement or commitment in urban public transport has been boosted, especially through the privatization concept. One major difficulty in realizing an efficient and reliable bus operation was traced to the emergence of widespread uncoordinated bus operations. The over-lapping of routes in some parts of urban areas, the competition for services, unnecessary trip reduction were some of the results of little intervention, or lack of coordination at the central and local levels related to the operations of urban public transport. This, together with the lack of powers and guidelines to plan public transport, serves as the major reason for the un-attractiveness of the public transport. Little concern for public transport which subsequently leads to its inefficiency and the declining modal split ratio for public transport is also found to be associated with the lack of professionally qualified staff. Shortage of qualified transport professionals has been more serious at the central level.

6. SOME POLICY CONSIDERATION

The authority, through the regulatory bodies, appears to lack the authority to plan and implement appropriate public transport policy. Other issues contributing towards this present state of deficiency are inadequate planning resources (staff) and the lack of local involvement in the public transport planning. Whether or not the functions of the existing authority are clearly defined, the operators on the other hand, still have to keep the bus transport services operating.

6.1 Greater Involvement in Planning and Control by the central agencies.

Policy success, irrespective of the kinds of policies and the aims they have, depends very much on the central agency which should be re-organized, taking into account the substantial processes of planning, licensing and coordination. The existing vague outline of its authority, as well as the absence of any guidelines on the overall planning and licensing of public transport as indicated earlier, justifies a recommendation to have these central agencies restructured. The SPAD is one of the ways to enable greater control, besides avoiding some

work duplication (between the SPAD and RTD) and expediting the process of approval, as well as providing a clearer and better framework for public transport planning and control.

The analysis indicating little local involvement and the lack of guidelines for the planning and coordinated efforts which have inevitably given rise to the unattractiveness of the public transport supports the suggestion for the need to prepare public transport guidelines. This guideline or document to be prepared by the SPAD contains an outline of issues and strategies on the public transport. It is to be circulated to the central and local government officials as a guide for them to plan a detailed urban public transport system.

6.2 Greater Involvement in Planning and Control by Local Authorities.

With the exception of Penang, none of the local authorities in Malaysia is given the responsibility to undertake the task of planning the transport system for their respective areas. The present organizational structure actually widens the gaps of planning and implementation between both the central and local agencies. Problems generated by uncoordinated multiple bus operators and other issues such as poor planning with respect to routes, terminals and the public transport networks, in the residential and employment areas are the result of the lack of local involvement, and this is found responsible for the present unattractiveness of the public transport. The absence of an urban transport division or department at the local level has also contributed to the poor public transport planning which increases the declining modal split ratio against the public transport.

What is really needed is a division entrusted with the functions of urban transport (including the public transport). Among the functions that are to be undertaken would be to review local public transport issues, to study the local transport infrastructure including stops and terminals, to estimate the need and demands for, as well as the supply of, transport based on the marketing strategy, to plan and schedule bus operations, to integrate road public transport with other transit systems in local areas, to coordinate the works of the traffic management and planning related to the public transport, promote the usage of public transport, to integrate the public transport and urban development planning at strategic level and also work closely (liaise) with the proposed SPAD and local RTDs.

6.3 Integration of Public Transport with Urban Development.

With regards to the urban development, the existing developed areas, central areas and new peripheral areas need to be integrated with well-rendered public transport services. The concept of integration in public transport generally accepts the vision on 'good practice' in terms of integration of public transport services. Improved integration between the public transport modes helps people to move around more easily and reduces the costs and inconveniences of travel (Muhammad F.I., 2003). The objective of integrated public transport is clear - to achieve a high transit modal share with a seamless service using two or more modes. Measures for integrating transport services include the following six (6) broad categories (Luk and Olszewski, 2001; Luk and Yang, 2001; Konopatzki, 2002):

- 1) Physical integration;
- 2) Network integration;
- 3) Fare integration;
- 4) Information integration;
- 5) Institutional integration; and
- 6) Wider Integration.

In line with the concept of decentralization, the urban activities and traffic may need to be taken away from an existing town centre. For this reason, the examination of the existing public transport network or the buses in particular, is necessary in order enable the simplification of the route network. Appropriate bus priority in the form of bus lanes on radial roads to overcome the problems of congestion and to decrease the travelling duration is also recommended.

A number of policies and techniques in the form of bus priority may be introduced in the CBD. These may include bus lanes and bus-only streets. Some restriction schemes and associated traffic management designs mainly serving to restrict the entry of private vehicles into the CBD during peak hours are necessary. The increased peripheral urban growth usually suggests the difficulty to provide efficient public transport routes. Alternatively, a planned peripheral growth linear form and spinal bus services with maximum walking distance would be a more suitable form in integrating public transport with urban development.

7. CONCLUSION

Public transport in Penang must be coordinated and further improved, depending on the development of the comprehensive strategy or specifically the Public Transport Plan, which perhaps includes a mixture of improvement infrastructure, greatly improved marketing system for public transport, better public transport services, reorganized and streamlined public transport at strategic level, the provision of guidelines and improved statutory requirements for the planning of the public transport, the encouragement for the local authorities in the planning and control of the public transport, the increased number of transport personnel through vigorous training and also the integration of the public transport with urban development. In order for the urban public transportation system to be improved, it must have the support of the public, the politicians and co-operation from the Federal government.

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