

ISSUES ON URBAN SETTLEMENT SYSTEM AND LAND USE PLANNING IN MALAYSIA

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Introduction

The spurt of high economic growth in the late 1980's and through the third quarter of the 1990's, saw a boom in the property market, effecting especially in the expansion of urban areas in Malaysia. This in turn attracted more people into the cities. Being epicentres of economic and social activities, the cities and urban areas of Malaysia will continue to expand, creeping its way into new frontiers. Forecasts show that by the year 2020, seventy percent of Malaysia's population is expected to reside in cities. The number of urban centres has increased from 67 in 1980 to 129 in 1991. This number is expected to increase in the future.

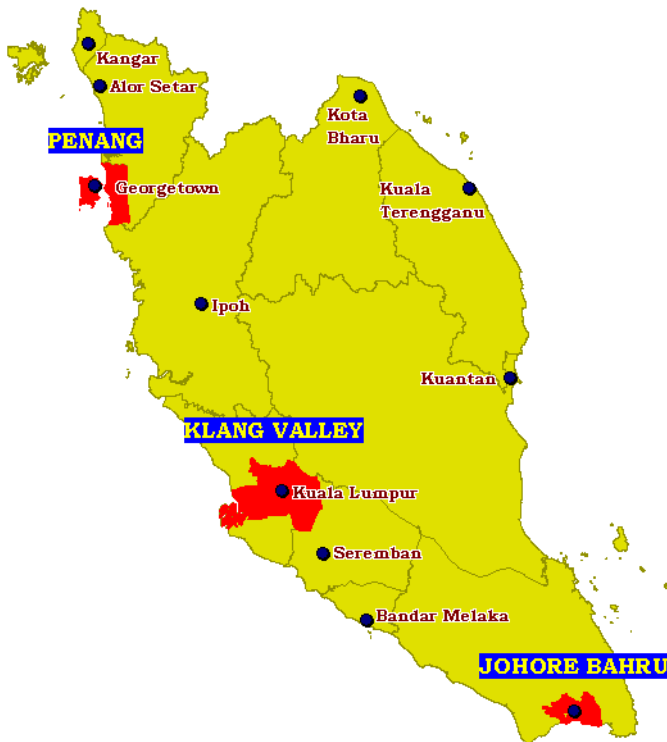
The regional development policies of the 60's and 70's, in which manufacturing activities were encouraged to locate in rural development centres, have shown minimal success in stemming rural-urban migration. Regional development plans have had minimal success in attracting investments away from the larger cities. Growth tendered to concentrate in existing centres of activity.

The development pressures have been concentrated within the three major urban regions of the Klang Valley in the centre of the peninsular, the city of Johor Bharu in the south and in the State of Penang in the north (Figure 1).

With development pressures comes issues such as traffic congestion, air and water pollution, shortage of affordable housing, overcrowding, lack of recreational and open spaces, insufficient social facilities, issues of ever increasing solid waste and its disposal, social issues such as juvenile delinquency, high crime rates and public safety, as well as pressures on the heritage areas and buildings of the city.

Issues of rapid urban development have been most evident in none other than the Klang Valley, the most rapidly growing urban region in the country. This paper intends to illustrate the issues in urban growth and settlement system, and land use planning strategies, by using the Klang Valley region as a case study.

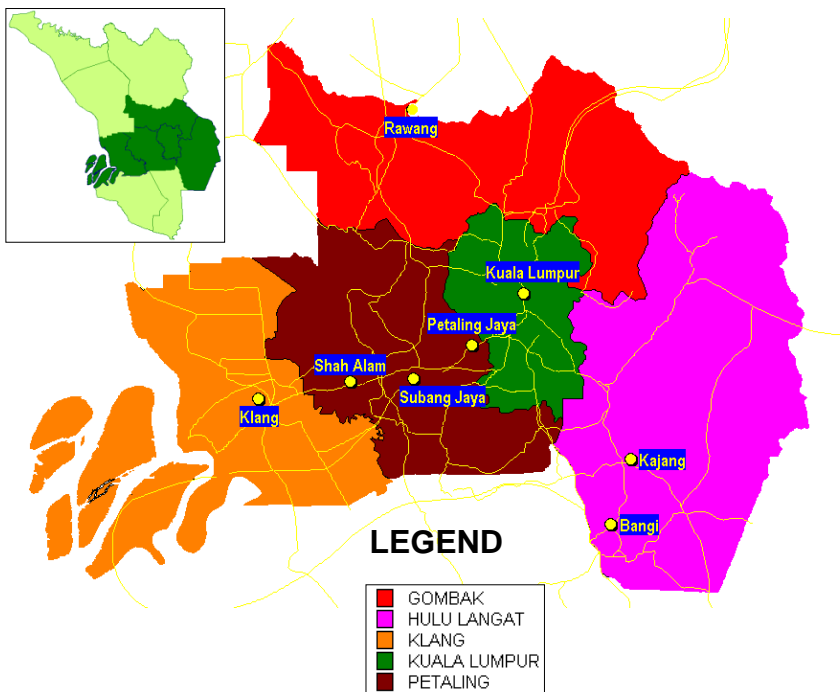
Figure 1. Major Growth Areas in Peninsular Malaysia



The Klang Valley

The Klang Valley region covers an area of about 284,342 hectares or 2,843 km², consisting of 4 major districts in the state of Selangor and the Federal Territory of Kuala Lumpur, the nation's capital city (Figure 2). Although comprising only 2.1% of the area of Peninsula Malaysia, it has about 17% or 2,948,448 of the nation's total population in 1991. This number and percentage is expected to be even higher in the year 2000 Census. The population of the Klang Valley region in 1998 is estimated at 3.8 million people.

Figure 2. The Klang Valley Region



In terms of economic growth, the region is regarded as the epicentre of the nation's development with a GDP output of 23.11% in 1997. A large proportion of this GDP is from manufacturing (44%), wholesale & retail (22%) and finance, insurance and services (17%) (Figure 3). The rapid development of Kuala Lumpur City as the nation's financial, administrative and trade capital has resulted in strong impacts on the surrounding areas. The rapid rate of development is expected to increase with the development of Putrajaya as the federal administrative centre, and the adjoining development of the Intelligent city of Cyberjaya, and the Multimedia Super Corridor (MSC) (Figure 4).

Within these five administrative districts of Klang, Petaling, Gombak, Hulu Langat and the Federal Territory of Kuala Lumpur, there are seven municipal councils and a city hall (Figure 5). This region has also amongst the largest urban centres in the country such as the city of Kuala Lumpur, Petaling Jaya, Subang Jaya, Klang and Shah Alam. In terms of the employment structure, it is shown that all districts have manufacturing as the most important sector, except for Kuala Lumpur, which has the largest number of employment in the building sector (58%). In the financial, insurance, property and commercial services, Kuala Lumpur has the highest percentage (50%) of the total employment structure in the region.

Kuala Lumpur has experienced a much slower population growth rate (3.3% per annum) compared to the surrounding districts. In fact Kuala Lumpur has experienced a net out migration over the years. This has been due to:-

- i. Limited development areas left within the city;
- ii. High costs of housing and rentals within the city , and the relatively cheaper costs of housing in areas around Kuala Lumpur;
- iii. Many of the low cost housing projects have been implemented in areas outside of the city due to the cheaper land costs;
- iv. The expansion of the manufacturing sector into surrounding districts, especially in Petaling and Klang offered better employment opportunities outside of Kuala Lumpur.

Figure 3. GDP of Klang Valley, 1997

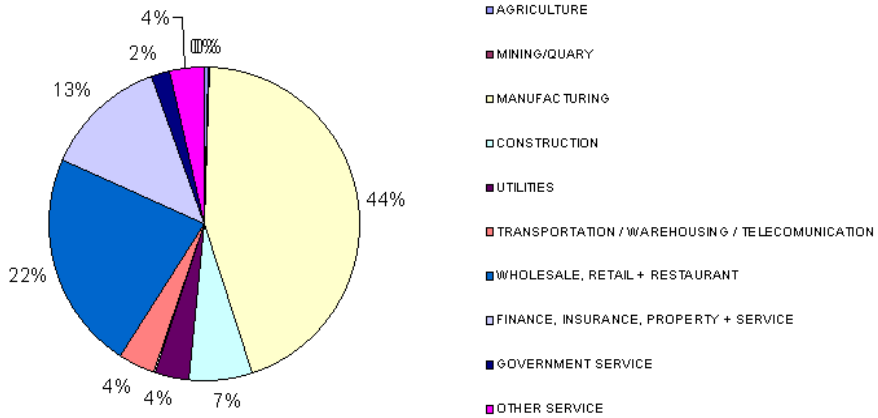
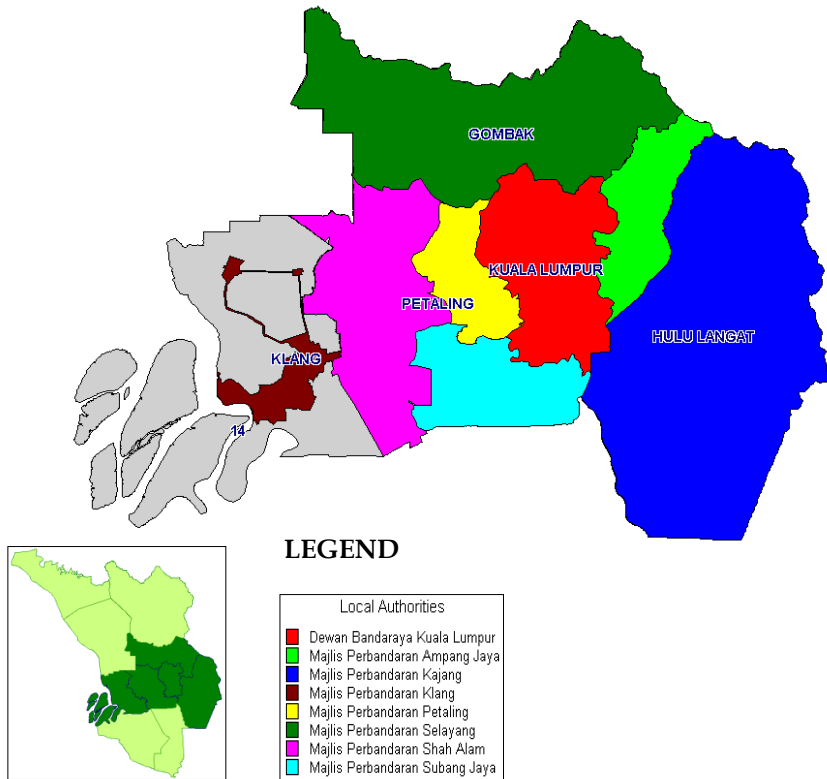


Figure 4. Putrajaya, Cyberjaya and MSC



Figure 5. Local Authorities Within The Lembah Klang Valley Region



Planning and Administration

Within the fastest growing region in the country, the area is administered at federal, state and local levels. The city of Kuala Lumpur is a local authority itself, but under the direct auspices of the federal government through the Prime Minister’s Department. The other seven local authorities are formed under the Local Government Act 1971. Land matters are administered by the State Authority of Selangor, through the district offices. Being the most dynamic region, the Federal Government felt the need to co-ordinate development plans throughout and so established the Klang Valley

Development Secretariat, which is a division of the Prime Minister's Department, in 1979.

In terms of physical planning, each local authority has their own Structure Plan formulated under the Town and Country Planning Act 1971 (Act 172) and for the City of Kuala Lumpur, The Federal Territory Town Planning Act, 1971. The first Structure Plan for Kuala Lumpur was gazetted in 1974. The Structure Plan is currently being reviewed. Similarly, the other local authorities have had their gazetted structure plans, with Petaling Jaya, Shah Alam and part of Klang, sharing a structure plan. These are currently being reviewed, with each local authority having their individual structure plan.

Nevertheless, the Federal government deemed it necessary to formulate a regional plan with the objective to co-ordinate development amongst the districts and the local authorities. And so the regional plan called PELAWI I was endorsed as the regional masterplan in 1981. This masterplan would guide economic, infrastructure, social and physical development through to year 2000.

Administratively, a Steering Committee headed jointly by the Mayor of Kuala Lumpur and the State Secretary of Selangor were to supervise the implementation of the Masterplan, and these shall be reported to a higher level committee chaired by the Prime Minister.

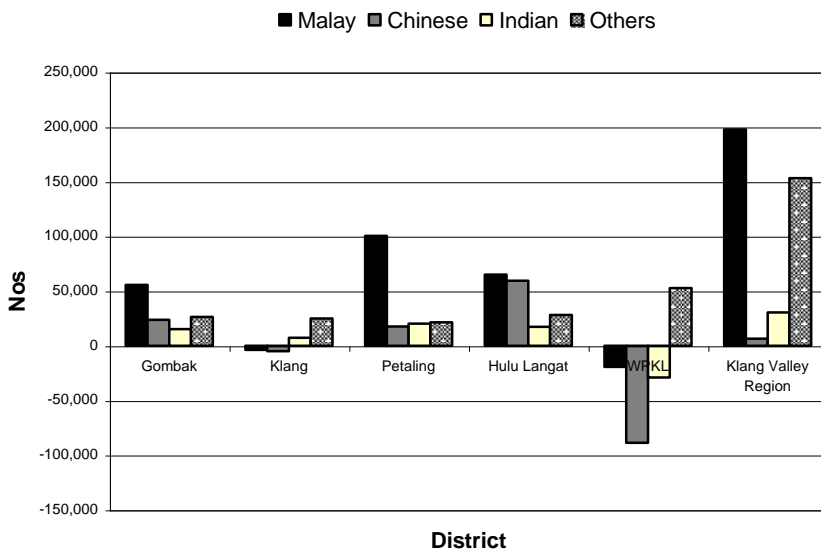
PELAWI I and Existing Growth Scenario

The masterplan had strategies and growth targets for most sectors such as population, housing, land use , urban settlements and commercial centres, transportation, infrastructure and utilities. For the purposes of this paper, the population, land use, and urban settlement pattern shall be touched upon to illustrate the issues arising out of planning and land use development.

Population

PELAWI I projected a population of 3.28 million in the region by 1990, with a growth rate of 5% per annum. The realistic figure from the 1990 census was much lower at 2.95 million, with a growth rate of 4.1%. By year 2000, PELAWI I estimated a population of 4.76 million, whereas by current growth rates, the expected current population is 4.07 million. Population growth has been most evident in the outer districts of Gombak and Hulu Langat, whereas Kuala Lumpur has experienced a net out migration for the reasons mentioned earlier (Figure 6).

Figure 6. Estimated Nett Migration 1980-1991 By Area And Ethnicity



Urban Settlement Pattern

PELAWI I recommended an urban settlement pattern that would ensure an equitable distribution of goods and services, as well as employment

opportunities. The growth strategies recommended were also to ensure that the designated centres would achieve the attributed functions. The hierarchy and functions that was designated then were as follows:

Table 1. Hierarchy of Urban Centres in the Klang Valley- PELAWI I

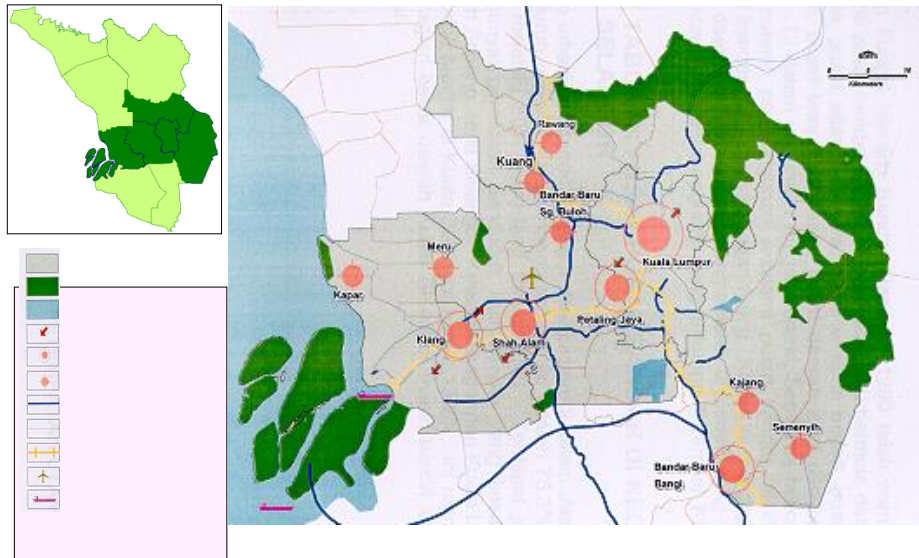
Centre	Status	Function
Kuala Lumpur	Nation's Capital	Nation's Administrative Centre; Finance and Trade
Shah Alam	State capital	State administrative centre, trade and industry
Petaling jaya	District centre	District administrative centre and industry
Klang	District centre	District administrative centre, heavy industries and transport
Bangi	District Centre	District administrative centre, Institutional and Industry
Selayang New Town	District Centre	District Centre and Light industry

The settlement pattern is shown in Figure 7.

The main strategies then were to accelerate the growth of Shah Alam, Bangi and Selayang by diverting investments in industry and commerce from traditional areas like Klang and Kuala Lumpur, to these towns. These three towns were to be self-contained townships and thus strategies to provide them with complete infrastructure and facilities were to be undertaken. The strategy also called on controlled development in areas outside of the designated centres.

Contrary to the strategies above, there was very slow growth experienced in the designated centres. Rapid growth was experienced in the traditional growth areas of Petaling Jaya, Klang, Ampang Jaya and Kajang, as shown by the rank size rule shown in Figure 8. Kuala Lumpur remains the highest rank sized city followed by Petaling jaya. The growth of smaller towns as envisaged by the regional plan failed to materialise fully.

Figure 7. Urban Settlement Pattern 1981-2000



Land Use

One of the major land use strategy under PELAWI I was the preservation of forest and water catchment areas, and the creation of buffer zones to act as recreational areas in between the major settlements. The land use plan for 2000 (Figure 9) was to form the basis for development control amongst all authorities. However, the trends of urban growth since the inception of the regional master plan indicated otherwise. The table below shows the growth in built up areas (housing, commerce, industry, infrastructure) in the region and the decline in forest and water catchment areas.

Figure 8. Distribution of Urban Settlement by Rank Size in Klang Valley, 1991

POPULATION LOG

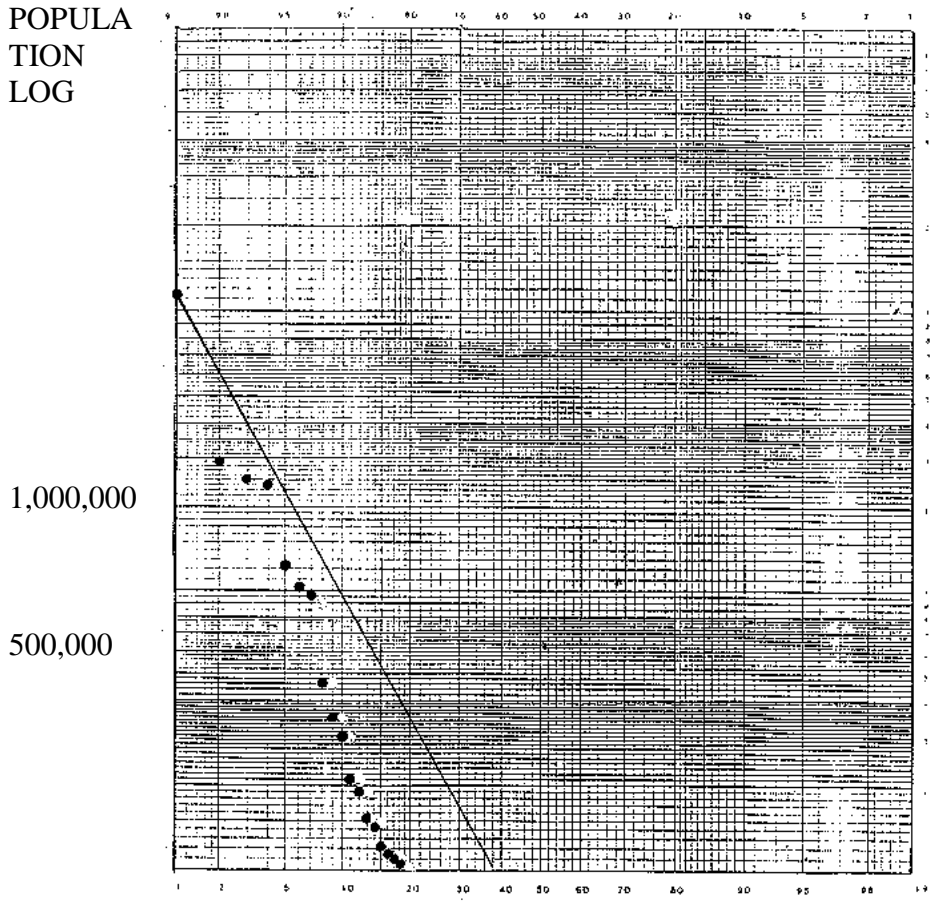


Figure 9. Pelawi 1 : Land Use Masterplan Year 2000

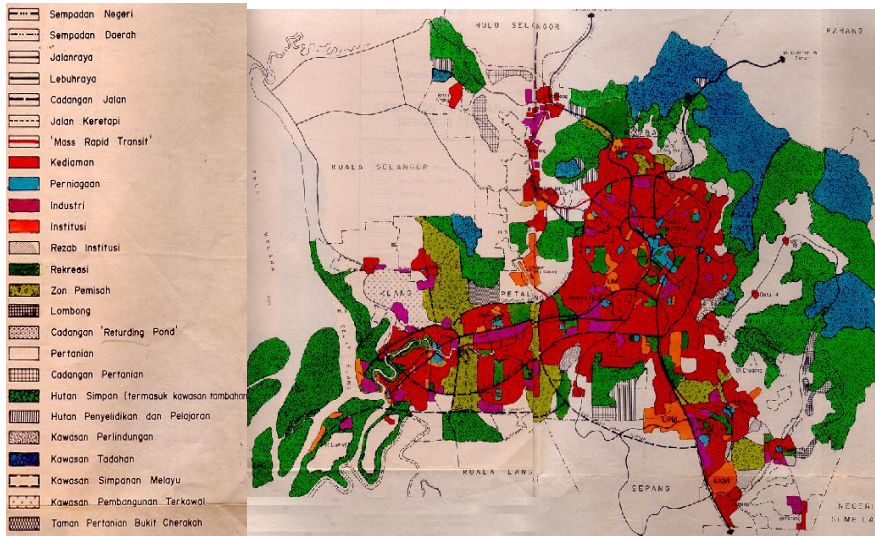
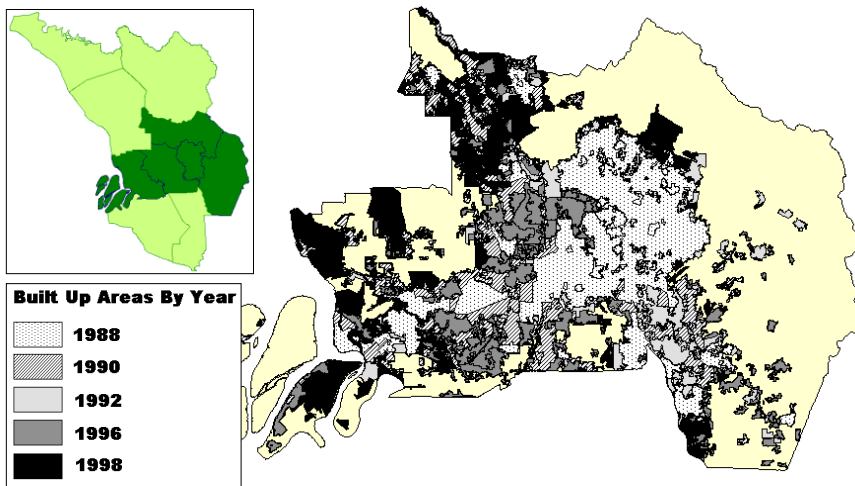


Table 2. Percentage Land Use By Type in the Klang Valley 1986-1998

Classification	1986	1990	1996	1998
Agriculture	36.9	31.6	33.5	26.33
Forest reserve	28.6	28.5	27.9	34.3
Built-up areas	17.5	19.9	21.8	35.3
Others (Roads, highways, vacantland, water bodies, mining land)	17.0	20	16.8	4.07
Total	100	100	100	100

This trend in urban expansion is shown in Figure 10.

Figure 10. Trend in Land Use Pattern, Klang Valley Region, 1988-1998



The Structure Plans

Besides the regional master plans, the Klang Valley is also covered by several structure plans formulated by the local authorities. Structure Plans are policy documents prepared under the Town and Country Planning Act 1976, outlining the development strategies of all sectors within a plan period of about 10 years.

Although in the formulation of a structure plan consultation has to be made with adjoining local authorities, nevertheless, each structure plan aim for the economic, social, physical and environmental betterment within individual boundaries. This has resulted in uncoordinated development between local authorities. It has been observed that the structure plans have not complied with the strategies of the regional master plan, which remains an administrative plan only, not mandatory upon any local or district authority to comply with. However, although the structure plan is a statutory document, its effectiveness in guiding physical development has been questioned.

Issues

The case outlined above briefly describes the urban growth phenomena experienced in a high growth region of Malaysia. It shows that despite the many plans developed to co-ordinate development, there are still many outstanding issues and problems. Some of these are:

Status of Plans

It was obvious from the PELAWI I experience that a regional plan without statutory status will be difficult to follow by the authorities that should have implemented it. The local authorities had their own structure plans which was formulated without incorporating the provisions of the regional masterplan. No doubt the plans were formulated at different times, the regional plan being in place before most of the structure plans of surrounding areas, nevertheless, the structure plans took greater precedence over the regional plans by implementing authorities.

Structure Plans Between Authorities

The structure plans of local authorities have their individual growth strategies and some of these were found to be in competition with one another. This is especially so with the identification of commercial town centres. For example, the 1974 structure plan of Kuala Lumpur had identified a few commercial centres in the peripheral areas, but these are located near an adjoining local authority which have also identified a town centre very close by. The town centre of Wangsa Maju to the north-east of Kuala Lumpur failed to take-off as the town centre of Taman Melawati situated almost next door, but within the Ampang Municipality, grew at a faster rate, due mainly to the slightly cheaper land costs.

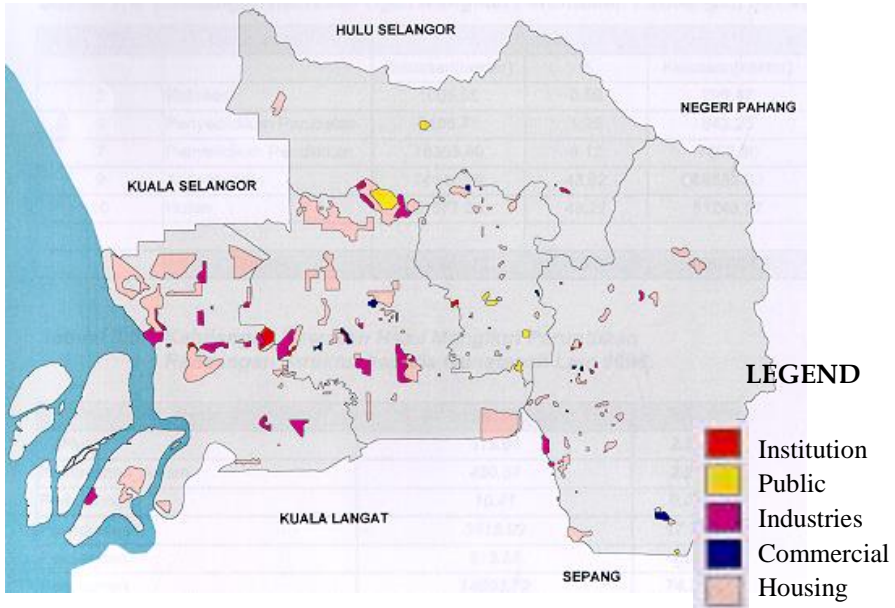
Loss of Green Areas

Despite the Structure Plans and the PELAWI I plan having policies to preserve green (high grade agriculture lands, forests and water catchment) areas, there are still developments being approved within these designated green areas. These are being converted mainly for housing (75%), and industry (18%). Figure 11 and Figure 12 show the conversion of green areas into other urban uses. These are mainly in areas of higher terrains, indicating an intrusion of development into highly sensitive areas.

Figure 11. Green Areas as Determined in Structure Plan



Figure 12. Change of Land Use of Green Areas into Other Uses



Lack of affordable housing in the right location

The regional master plan and all structure plans have identified lack of affordable housing as a major housing problem. However, trends have shown that although affordable housing are demanded in Kuala Lumpur and Petaling Jaya, more of this type of housing are built in the less urbanised districts of Gombak and Hulu Langat;

Traffic Congestion

Kuala Lumpur and Petaling Jaya being the largest employment centres in the region attract daily traffic that have caused much inconvenience in terms of time and energy, pollution and noise levels, as people travel from their homes in other outlying areas into these centres. Traffic and transportation

are cross boundary issues, and the structure plan alone will not solve the problems unless co-ordinated through a regional transport master plan. Although such studies have been carried out, however, much has yet to be implemented.

Urban Flash Floods

This remains to be a perennial problem despite undertaking expensive measures to widen and deepen rivers, as well as undertaking flood mitigation studies. Rapid development through massive land clearing especially in the upper reaches of rivers, have lead to greater sedimentation of rivers so that whenever it rains, low lying areas in the lower basins suffer. Areas like the city of Kuala Lumpur, Shah Alam and Klang experience flooding that disrupts economic activities and creates insecurities especially for those living along low lying areas.

“Leap-Frogging” of Development

This is a common issue identified in all structure plans. Development has been approved in areas outside of designated urban boundaries. Furthermore, most of these are mega projects involving thousands of hectares and forming new self-contained townships. The preference by housing developers to build new townships in greenfield sites around large urban centres in meeting the housing needs of the rapidly growing urban population. These greenfield sites are the kinds of development that have reduced prime agricultural areas, as shown earlier.

This leapfrogging of development has brought on some problems especially with water supply and utility provisions. Development of greenfield sites has not only encroached onto agricultural lands but also into water catchment areas. This, together with effects of El-nino and the micro climatic effect caused the Klang Valley region to have one of the worst water shortages during the dry season of 1997.

Lack of Public Recreational Open spaces

Private-sector led development has been encouraged to spur growth and development in the region. However, there seems to be a lack of commitment to ensure that public recreational open spaces such as town parks and gardens are adequately provided to ensure the health and serenity of the urban population. Statistics indicate that in 1998, there were a total of 1,300 ha of urban parks and gardens in the Klang Valley, but on the other hand there were 1,950 hectares of private golf courses. This imbalance of provision of open spaces may be further threatened as public open spaces in the city are eyed as prime urban land for development.

The Challenges

How will land use planning resolve issues of urban settlement system and more importantly, in ensuring sustainable development in the new millenium. Resulting from all the issues identified above, greater efforts are currently being undertaken to co-ordinate development within the Klang valley at both state and federal government levels. These are as follows:

Review of the Klang Valley Regional Masterplan

The federal government has commissioned a review and re-formulation of the growth strategies for the Klang valley region. This review called PELAWI II will incorporate the developments of the Multi-media Super Corridor (MSC), Putrajaya and Cyberjaya, as well as all the structure plans that have been formulated by local authorities. Local authorities will then have to abide by the recommendations of the masterplan so that development will be co-ordinated, and issues reduced. The masterplan is believed to be based on the strategies for sustainable development. This masterplan should be ready for endorsement and implementation before the end of the year.

Most importantly however, the public and all stakeholders have been invited to participate in the formulation of the masterplan policies and strategies. Views have been sought at public forums and will be incorporated into the report.

The Selangor State Agenda 21 and Sustainable Development Strategy and the MSDC

In the meantime the Selangor state government has formulated and accepted as development policy the Agenda 21 and Sustainable Development Strategy, which touches on economics, social, physical and environmental growth that includes public participation in line with Local Agenda 21. In terms of physical development, the state has developed the 'Multi-Strand Development Corridor' (MSDC) (Figure 13) This strategy has been chosen to ensure the following:

- i. the encouragement of an active and vibrant economy;
- ii. increase the efficiency of infrastructure and utility provision;
- iii. provision of economic infrastructure that is strong and dynamic;
- iv. enabling sustainable development and eco-biodiversity;
- v. development is balanced;
- vi. provide access to natural environments and recreation;
- vii. an efficient urban management.

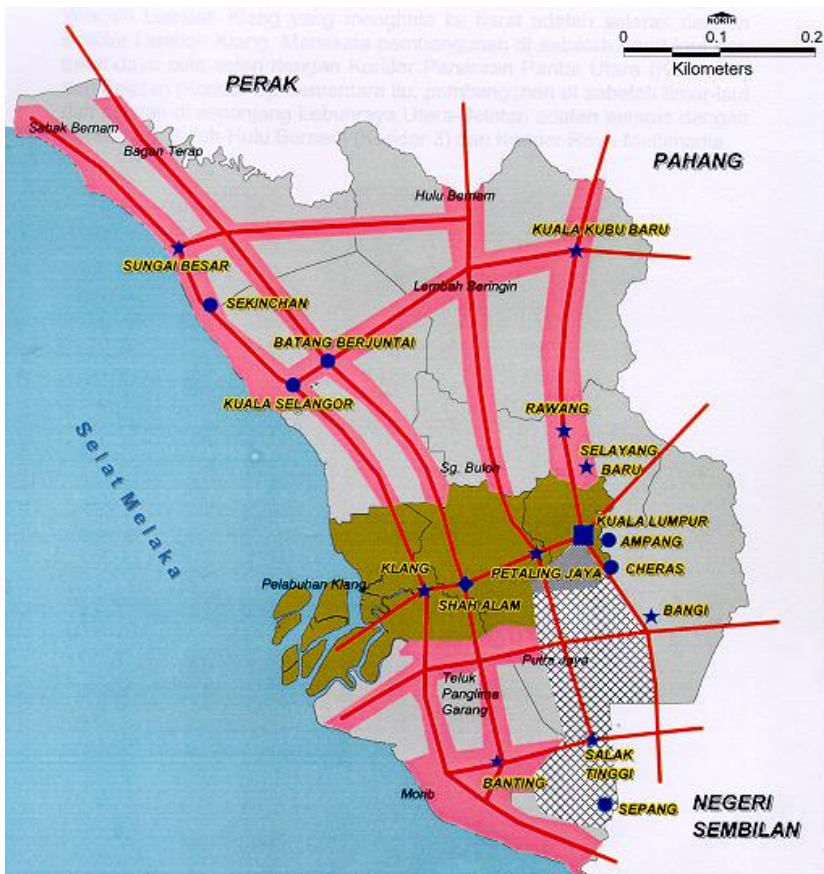
In the formulation of the Agenda 21 and Sustainable Development Policy, views of all stakeholders have been sought during public forums and workshops and have been incorporated into the plan.

The Town and Country Planning Act 1976 and proposed amendments

The TCP Act 1976 under which development plans must be prepared for all areas under local authorities, provide the basic tool for land use allocation, through structure and local plans. Apart from reserving land for urban

development, structure plans also indicate areas for the preservation of environmentally sensitive areas, prime agricultural lands, and natural features such as open spaces and water bodies. The local plans are more detailed plans specifying the allowable development form of every lot.

Figure 13. The Multi-Strand Development Corridor for the State of Selangor



However, as has been illustrated earlier in this paper, these plans have not been entirely successful in co-ordinating development between one local authority and another, and in ensuring that urban development issues are minimised. It has been proposed that the Act be amended to allow for a statutory plan to be developed at the state level, so that development within all local authorities will abide by the state development plan. The next hierarchy would be the local plan which will cover smaller areas within the local authority.

The National Urban Policy

The Federal Government through the Ministry of Housing and Local Government is currently preparing the National Urban Policy (NUP). This document will serve to integrate and co-ordinate planning and management of cities in the country. The NUP shall outline the framework for urban development and will tackle issues such as demography and urbanisation trends, regional and economic development, environmental preservation and resource utilisation. As the country develops and as cities expand, this document is hoped to be the focal point for multi-level agencies to base their decisions upon.

The National Spatial Plan

Following through with the National Urbanisation Policy which is a strategic policy plan, will be the National Spatial Plan (NSP). This is currently being developed. It is a strategic long-term guidance on the spatial direction and pattern of development, use and conservation of the nation's land. The NSP will complement the national five-year development plans. The NSP will translate the economic plans into physical and spatial terms. With the NSP, state masterplans and local plans will be easier to be formulated accordingly. The NSP is expected to contribute to the spatial optimisation on the use and development of land, whilst conserving environmentally sensitive areas. The NSP will complete the hierarchy of physical plans in Malaysia, hopefully

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Conclusion

Land use planning in Malaysia does not only rely on the physical plans. There are the philosophies that have been evolved, the guidelines and standards, and other planning tools such as the Development Proposal Report (DPR), the Environmental Management Plan (EMP), the Social Impact Analysis (SIA), the Sustainable Urban Development Indicators (SUDI), etc. In the formulation of these planning tools, the government has taken the lead but always with consultation of the stakeholders. These public-private sector partnerships will be the norm in all future efforts to improve the physical planning process.

Urban Settlement systems in Malaysia are never static; they are vibrant and dynamic and always evolving into larger and larger entities. Local market forces that have shaped our urban settlements are increasingly being influenced by global events. As such planners and policy makers cannot rely solely on the contemporary and mechanistic approach to urban planning and its issues. However, physical plans are still needed to guide future growth and change. Relying solely on market forces to determine the life and form of our urban settlements may have disastrous effects than what has been illustrated in this paper. Smart partnerships between developers, policy makers, politicians and planners should be the paragon of development. The need for multi-dimensional and dynamic efforts to handle complex urban issues calls for not just an integrated approach to planning and resource management, but also to make sustainable development the basic underlying objective. If all parties agree to this blueprint for development, can we then successfully balance and properly plan and manage our urban settlements as

the future centres for human development and the protection of natural resources.