



Development Strategy and Physical Characteristics of New Towns in Malaysia

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Abstract

The development strategy and physical characteristics adopted for the new towns developed by the State Economic Development Corporations in Peninsular Malaysia were to fulfill the Malaysian Government's vision. The Federal and the State Governments play an important role in quality social programs. This research presents the analysis and the synthesis of data collected from six selected State Economic Development Corporations involved in new town development. The research focus on various aspects including the background of each new town, the land use distribution and the development progress of thirteen new towns. The evaluation was made on all new towns and their achievements were compared. The creation of new towns by the State Economic Development Corporations was to satisfy the national policy where the social service objectives supersede the profit making objectives. The research found that the development of new towns by the State Economic Development Corporations in Peninsular Malaysia proven some success.

Keywords: Development strategy, Physical characteristics, New towns, State Economic Development Corporations

1. Introduction

Malaysia has had more than three decades of experience in developing new towns. Since the implementation of the New Economic Policy in the early 1970's, new towns were more rapidly developed. There were also new towns emerging in the frontier regions, known as rural based new towns. The aims of developing these new towns were to urbanize rural areas as well as to eradicate poverty. It was also restructure society through the creation of job opportunities and property ownership in these new towns.

The first Malaysian new town was Petaling Jaya, which begun to be developed in 1954 to cater for the spillover of Kuala Lumpur's population. Before this, the focus of development and economic growth was concentrated in Kuala Lumpur. Petaling Jaya was called a satellite town for Kuala Lumpur and was planned to accommodate only 70,000 people. The state capital of Selangor, Shah Alam new town, was planned in 1966 when the Federal Government decided to have a separate administrative centre for the federal and state governments. Shah Alam new town was designed to cater for a population of 200,000. The existing town, Klang is to the west of Shah Alam. These three towns together formed what is called the Klang Valley Region which has been identified by Malaysian economists as the fastest growing area in the country.

There are eleven states in Peninsular Malaysia. The State Economic Development Corporations have been incorporated in every state under their respective State Government Enactment. The corporations were established to be responsible for carrying out economic activities at the state level. The state governments planned and developed the new towns through their State Economic Development Corporations.

2. New Town Development by State Economic Development Corporations

In Peninsular Malaysia, six State Economic Development Corporations for Selangor, Pulau Pinang, Perak, Johor, Pahang and Terengganu were involved in new town development. The emphasis on new town development varied between states. Each of the State Economic Development Corporations planned and developed its new towns so as to meet the policy requirement of the respective state government.

2.1 The Selangor State Economic Development Corporation was the most active with six new towns namely Shah Alam, Bangi, Kelana Jaya, Ampang Ulu/Klang, Bandar Sultan Suleiman and Kota Damansara. The new towns were to serve as catalysts for the regions and also to strike a balance between the Klang Valley and other areas in the state.

2.2 The Pulau Pinang Development Corporation developed three new towns, with Bayan Baru on the island, and Seberang Jaya and Batu Kawan on the mainland. These new towns were established to encourage the development of the surrounding areas.

2.3 The Perak State Economic Development Corporation developed its first new town called Seri Manjung with the objective of creating a balanced regional development, as well as achieving the New Economic Policy.

2.4 The Pahang State Economic Development Corporation developed Indera Mahkota as an important new town in the east coast of Peninsular Malaysia.

2.5 The Johor State Economic Development Corporation developed Pasir Gudang as the largest industrial new town in the southern part of the Peninsular.

2.6 The Terengganu State Economic Development Corporation developed Kerteh to cater for oil and gas industries.

3. Aim and Objectives

The aim of this research is to identify the development strategy and physical aspects of 13 public new towns in Peninsular Malaysia.

The objectives are as follows:

(a) To identify the background of each new town the background of each new town which discusses factors relating to location, development and town planning concept, administration, development agency and population

(b) To analyse the land use distribution and development progress in which the status of physical development of all the new towns would be explained.

4. Research Methodology

Data was gathered through personal interviews with twelve State Economic Development Corporations personnel using open ended questionnaire focusing on new towns development strategy, administration and procedures in new town development, development progress and issues related to new town development specifically on physical aspects. These officers were interviewed at their offices, at time convenient to them, after confirmation through telephone was made. Site visits were made to all new towns to confirm the physical development and land use distribution. This was done after the documents made available such as annual reports, briefing notes, master plans and layout plans were studied at the corporations' office.

5. Analysis

This analysis focus on the evaluation of the development strategy and the physical characteristics of thirteen new towns developed by the six selected State Economic Development Corporations. The evaluation was made on all new towns and their achievements were compared.

5.1 Scale of development

New towns developed by the State Economic Development Corporations were with different scale of development ranged between 165.9 acres to 8394 acres. There were two main reasons delivered by the corporations concerned. The scale of development was very much depending on the availability of land at the particular location and also the expected demand for the specific new town projects.

From the list of 13 new towns, 9 had more than 1,000 acres of land, with Shah Alam as the biggest new town and followed by Pasir Gudang with a total acreage of 6,559 acres. The development of Bangi by Selangor State Economic Development Corporation, was on a site with an acreage of 4,618 acres. The next scale, were new towns with sizes about 3,000 acres and it was found that there were three new towns in this group with Kota Damansara being planned on 3,925 acres of land, Indera Mahkota to occupy 3,572.92 acres site and Bayan Baru was developed on 3,505.8 acres of land. It was found that only Seberang Jaya had slightly less than 3,000 acres site, where it had acreage of 2,933 acres. (See Table 1)

There were three new towns with the scale of development between 1,000 to 2,000 acres, and they were Kelana Jaya with 1,516 acres, Seri Manjung with 1,465 acres and Seberang Jaya with 1,123.8 acres. For those less than 1,000 acres land sizes were Ampang/Ulu Klang with 910 acres and Kerteh with only 165.9 acres. However, for the first two new towns the acreage was more than 900 acres or close to 1,000 acres. There was a big difference in the scale of development between Kerteh and the other twelve new towns. Referring to each Corporation, Pulau Pinang, Johor, Pahang and Perak State Economic Development Corporations had large scale new towns development projects of more than 1,000 acres, while Selangor State Economic Development Corporation developed different sizes of new towns.

5.2 Development concept

The research found that, each new town was developed with its own development concept. This was related to its function, location and scale of development. The development concept of each new town was to meet the policy as

intended by the state government. The new towns developed by the State Economic Development Corporations were based on the mixed development concept depending on their functions. These functions could be divided into six main groups such as administrative centers, satellite towns, industrial/port service centers, high technology industrial towns, institutional centers and commercial/service centre.

As for the administrative function centers, Shah Alam and Seri Manjung were developed with the same function but for different level. Shah Alam was created to serve as state capital while Seri Manjung was to serve as a district center. New towns which were grouped as satellite towns included Kelana Jaya, Ampang/Ulu Klang, Seberang Jaya and Bandar Indera Mahkota were located in a closed distance to the existing towns or industrial areas.

The other function was as industrial/port service centers, and three new towns were developed to meet the demand. New towns that were categorized with this function were Pasir Gudang, Bandar Sultan Suleiman and Kerteh. The locations of these new towns were along the coastal area of Peninsular Malaysia, where Pasir Gudang is in the southern region, Bandar Sultan Suleiman along the western coast and Kerteh is in the eastern coastal region. Batu Kawan was developed as an industrial town.

Bangi was the only new town developed by State Economic Development Corporations which aimed to be an institutional centre. Institutions such as Malaysian National University, University of Tenaga Nasional, Government research centers included Malaysia Agricultural Research and Development Institute (MARDI), Palm Oil Research Institute of Malaysia (PORIM), and few other private research and training centers are located in Bangi new town.

The development plans for these new towns were either prepared by in house town planners of the corporations concerned or by private consultants appointed and monitored by the State Economic Development Corporations management teams. During the process of preparing the development plans, discussions were carried out among the states' departments in relation to economic development policies and guidelines. This is to ensure these policies and guidelines were followed through the development of new towns by the State Economic Development Corporations. These plans were subject to changes and were reviewed whenever necessary. These new towns were planned following the planning guidelines used by the local authority concerned as practiced in the development control process.

The analyses were made on the master plans or layout plans provided by the corporations, and it was found that all of the new towns except Kerteh were planned according to the demand of the land uses. Kerteh was too small in scale to adopt the planning concept. Shah Alam was the only town which was identified and developed as an administrative and a state capital. The town planning concept for Shah Alam was based on its function while the residential development was planned on the neighborhood concept. Other requirements such as industrial development, commercial uses, infrastructures and community facilities were planned by Selangor State Economic Development Corporation as a master plan which was revised and updated whenever there was a need to do so.

5.3 Land Use Distribution

The land uses were categorized under six main components namely housing, commercial, public facilities, infrastructure and future reserved use areas. The land use data were gathered from either master plans or the lay out plans that were made available by all corporations. The analysis was intended to demonstrate the relationship between land use and functions of new towns and also to show the comparison of land use components among new towns developed by the State Economic Development Corporations.

From the seven components listed, three major components which included housing, commercial and industrial areas were commonly used in the plans for land use distribution. These were the three land use components strongly related to economic activities and functions of the new towns. However, the land use grouped as public facilities or infrastructure seemed to be different between new towns, while for future reserved areas the land uses had been zoned for specific uses according to the requirements of each new town.

Referring to housing land use, Table 2, shows that the distribution between new towns was different which ranged from 19.8 per cent in Kota Damansara to 40 per cent for Seri Manjung which was planned as an administrative and commercial centre.

The research found that land which was categorized for industrial use varied between new towns. The only new town with no allocation of land for industrial development is Kerteh. Kerteh was planned as a residential new town to serve the petroleum industry. Pasir Gudang had the largest proportion of its land for industrial use with 42.5 per cent, followed by Bandar Sultan Suleiman with 38.5 per cent and the third on the list was Bayan Baru with 30.2 per cent for industrial development. These three new towns were developed as industrial/port service centers. Referring to Table 2, there were four other new towns identified with industrial development concepts, and the proportions of land zoned for industrial use was different and were arranged as follows, Batu Kawan with 23.2 per cent and Kota Damansara with 13.7 per cent. The land use distributions for these new towns were related to their economic activities and functions as stated by the development concepts. However, Shah Alam was planned as an administrative state capital also had 19 per cent of its total acreage zoned for industrial development. Among the new towns studied, Shah Alam had the biggest

area of industrial land of 1,620 acres due to its location centrally in Klang Valley. While for Seberang Jaya, 14.7 per cent of the total acreage was zoned for industrial use, though it was developed as a satellite new town. Other new towns had industrial land use distributions ranged between 4 per cent to 11 per cent of the total area even though they were not being planned with major industrial development concepts.

Commercial areas were the other common land use to all new towns as business activities were among the basic requirements for the people. Table 2, shows that this commercial use of land was varied in size and the proportion of the distribution ranged between one per cent to 20.3 per cent. Bayan Baru was identified to have the smallest proportion of only 1.7 per cent. Kerteh was another new town with a large proportion of 15.7 per cent of its total acreage being planned for commercial use and this also was in line with its development concept as residential cum service petroleum centre. As for other new towns the commercial land use was to serve the needs of the particular new town.

Infrastructure use was another important component in new town development. Infrastructure use commonly included areas reserved for roads, utilities such as electricity, telecommunication, drainage, sewerage and water supply pipe line. However, it was found that the interpretation used in some of the new town development plans and documents differed widely. The proportion of infrastructure land use distribution was high in some new towns because, as mentioned earlier, this was due to the combination of land use components as indicated by particular development plans. In the cases of Pasir Gudang and Seri Manjung, the public facilities land use components were grouped together as infrastructure land use, while for Ampang/Ulu Klang part of the public facilities land use was grouped into infrastructure land use. There were six new towns with more than 30 per cent of the total acreage zoned for infrastructure development and it was found that five were new towns developed by Selangor State Development Corporation. From the list, Kota Damansara had the highest proportion of 49.4 per cent of the total acreage being zoned as infrastructure use and this was followed by Kelana Jaya with 40.8 per cent, Ampang/Ulu Klang with 40.6 per cent, Seberang Jaya with 34.9 per cent and Bangi with 32.7 per cent. Other new towns were planned with infrastructure land use range between 6 per cent to 26 per cent.

Public facilities included schools, hospitals, police stations, religious centers, post offices, libraries, and few others as required by the Town and Country Planning Guidelines, were required in new town developments so as to satisfy the basic needs of the residents. The research found that, other labels such as amenities and institutions were used in new town documents and plans. However, for the purpose of this research the interpretation by the Town and Country Planning Guidelines (1999) was referred to, and all related facts would be defined as public facility land use. As mentioned earlier in the previous paragraph, it was interpreted as infrastructure land uses. Referring to Table 2, the proportion of public facilities land uses zoned in new towns varied between one another and ranged between 1 per cent to 41 per cent of the total acreage. There were ten new towns planned with public facilities land use occupying more than 20 of the total acreage. Kerteh was found to have only 1.7 per cent and this was because there were existing public facilities available in the surrounding area to support the new town's population. Indera Mahkota had the highest proportion of public facilities land which was 40.4 per cent of the total acreage and it was found that this type of land use included land reserved for golf course, a palace and higher institutions.

Referring to Table 2, the column defined as 'other uses' was meant to show that there were land uses stated in some documents and plans studied, which did not match the five components of land use as described in the above paragraphs. The research found that as in the planning documents of Kerteh and Kota Damansara, land was reserved as future development with no specific use stated where in Kerteh 39.1 per cent was under this category while in Kota Damansara only 8.6 per cent.

5.4 Population

The targeted population varies from one new town to the other and was much related to the size of each new town. All new towns except Kerteh were planned to accommodate the minimum populations of 30,000. Shah Alam had the largest acreage with targeted populations of 180,000. Two other new towns such as Pasir Gudang and Batu Kawan were planned to have 150,000 people, while Kota Damansara was to accommodate 100,000 populations. From the above statements, there were six new towns with targeted populations of 100,000 and more. These new towns were developed by different corporations with a variety of functions, Three of these new towns were located in Selangor and one each in Johor, Perak and Pulau Pinang.

There were ten new towns with planned populations below 100,000. Indera Mahkota was the largest with a targeted population of 80,000 and this was followed by Bangi which was expected to have 75,000 people. The new town with a projected figure of 60,000 population is Kelana Jaya, Bayan Lepas and Seberang Jaya. Bandar Sultan Suleiman was targeted for 45,000 population. Ampang/Ulu Klang was to accommodate a population of 30,000. However, Kerteh was planned for a population of 5,000 due to its location and function.

5.5 Housing Development

The housing development by the State Economic Development Corporations has been intended to provide accommodations which are conducive and comfortable with the emphasis of restructuring property ownership of houses

and also to provide low and medium cost houses especially in urban centers in line with the government policy. The research was based on the master plans/ lay out plans, reports as well as the interviews with the officers of the corporations. The targeted housing units by new towns were related to the scale of development, function and also location. The biggest was Shah Alam with a projected figure of 36,000 housing units while the other twelve new towns were planned to have between 6,000 to 30,000 houses. However, Kerteh had the lowest number of houses where the projected figure was only 1,000 units of houses.

The analysis on committed housing development for each new town shows that housing development consisted of three types of houses as categorized by house prices which were low cost, medium cost and high cost. The over all total number of houses were 109,477 units, and the average distribution by types consisted of 58.5 per cent which were medium cost, 27.4 per cent were low cost and 14.1 per cent were high cost. The figures demonstrated that housing development in the new towns were in line with government's policy for having more medium and low cost houses in the projects. The development of the low cost houses ranged between 0 per cent to 100 per cent, medium cost ranged between 28.6 per cent to 100 per cent, and high cost ranged between 0 per cent to 28.3 per cent.

Further analysis on the distribution by individual new town showed that there were seven new towns with more than 30 per cent of houses built were of the low cost type. However, for Bandar Sultan Suleiman all houses were of the low cost type, followed by Pasir Gudang with 65.7 per cent of houses built were the low cost units, and in Batu Kawan there were 64.6 per cent of the houses were of low cost type. The list of new towns with more than 30 per cent low cost housing projects implemented included Ampang/Ulu Klang, Kota Damansara, Bandar Indera Mahkota and Seberang Jaya. Other new towns had less than 30 per cent of low cost houses built, and Kelana Jaya had the smallest number at 8.3 per cent of the total units built.

6. Conclusion

Research on these new towns found that new towns in Selangor, Pulau Pinang and Johor were considered very successful. They were located in the most urbanized regions and were involved in developing new towns with industrial establishments. They were well served with infrastructure services including international airports, ports, highways, railways and other commercial services. They were located in the more developed states in Malaysia. The successful new towns developed by the State Economic Development Corporations of Perak and Pahang functioned as satellite and commercial service centers. They were found to have limited industrial land use that covered about five percent of the total acreage. The infrastructure services available were of the national level. The least successful new town was found to be that of the Terengganu State Economic Development Corporation which developed Kerteh. It is the smallest new town and functions as a service centre for the petrochemical industrial activities. Kerteh was the only new town planned without any industrial land allocation and it faced difficulties in implementation. Each of the State Economic Development Corporations planned and developed its new towns so as to meet the policy requirement. The development strategy and the physical characteristics of each new town had a major role in achieving sustainable development.

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Table 1. Land use distribution of the new towns (acres)

New towns	Housing	Industry	Commercial	Infrastructure	Public facilities	Total acreage
Shah Alam	2552	1620	336	1931	3886	8394
Kelana Jaya	409	117	7.4	618	298	1516
Ampang/Ulu.Klang	403	117	3.0	487	16	910
Pasir Gudang	2146	2214	176	1450	-	6559
Seberang Jaya	235	165.6	56.4	392.6	274.1	1123.8
Bandar Sultan Suleiman	663	1130	102	414	624	2933
Bayan Baru	709.3	1060.5	60.9	761.9	913.2	3505
Seri Manjung	709.1	68.7	72.7	369.2	24.4	1465
Bangi	914	511	282	1511	1400	4618
Kerteh	33.5	-	26	23.3	2.8 (64.9)	165.9
Indera Mahkota	1158.2	26.0	127.4	634.8	1446.5	3572.9
Kota Damansara	788	536	120	1937	233 (339)	3925
Batu Kawan	1538	1468	296	720	1549	6526

Table 2. Percentage of land use distribution of the new towns

New towns	Housing	Industry	Commercial	Infrastructure	Public facilities	Future development
Shah Alam	30.4	19.0	4.0	23.0	24.0	-
Kelana Jaya	20.7	7.7	4.9	40.8	19.6	-
Ampang/Ulu.Klang	32.0	9.6	14.4	40.6	2.5	-
Pasir Gudang	32.7	42.5	2.7	22.1	-	-
Seberang Jaya	20.9	14.7	5.0	34.9	24.4	-
Bandar Sultan Suleiman	21.6	38.3	3.5	14.1	21.3	-
Bayan Baru	20.2	30.2	1.7	21.7	26.0	-
Seri Manjung	48.4	4.0	5.0	25.2	16.8	-
Bangi	20.0	11.0	6.0	32.7	29.9	-
Kerteh	20.1	-	15.7	14.0	1.7	39.1
Indera Mahkota	34.4	5.8	3.6	17.8	46.4	-
Kota Damansara	19.8	13.7	2.6	49.4	54.6	8.6
Batu Kawan	25.0	23.2	4.7	11.4	24.5	-