Emerging Trends of Urbanisation in Malaysia

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Abstract

This paper assesses the changing trends and levels of urbanisation in Malaysia utilizing data from the population censuses at four points in time – 1970, 1980, 1991 and 2000. In general, the urban population change occurs as a result of the interaction of spatial and demographic phenomena. The spatial phenomenon affecting population change is the reclassification of urban areas such as the upgrading of rural localities to the urban strata, annexation of areas to previous urban centres as well as boundary changes of the urban centres. The demographic phenomenon affecting population change is natural increase and migration. Data from the population censuses show that urbanisation levels in Malaysia are on the rise. The urban population in Malaysia increased by 11 percentage points from 51 per cent in 1991 to 62 per cent in 2000. Compared to other countries, Malaysia does not experience the emergence of a one all-dominant megacity as urban centres in Malaysia are spatially well distributed, and metropolitan towns are located in almost all states with some of them being state capitals.

1.   Introduction

Urbanization and urban growth are phenomena of increasing concern to both planners and policy makers alike since trends and patterns of urbanization have wide ranging implications on socio-economic development. During the past decades, both the scale and pattern of urban growth in Malaysia were transformed continuously and with increasing rapidity. Like many other countries, the growth of the urban population in Malaysia was much more rapid than that of the population growth in rural areas. The extent of growth in some urban centres was not just seen within their legal boundaries but had led to a spillover of the population into their peripheries. This situation can be attributed to two factors: firstly, the availability of vast employment opportunities which drew migrants from the rural areas to settle in these peripheries and, secondly, the population moving away from the densely populated urban core centres to settle in the outer limits of their urban boundaries.

2.   Definitions of urban areas

Prior to the 1970 Population Census, the definition of urban areas used in the population censuses refers to gazetted areas which comprised of local administrative units with a population of 1,000 persons or above. These gazetted areas, each under the jurisdiction of a local authority, by and large, were classified on the basis of their urban characteristics. However, for the 1970 Census and subsequently the 1980 Census, the criterion for a minimum population for a gazetted area to be considered as an urban area was increased to 10,000. This change was to reflect a more realistic level of urbanisation because settlements with a population size below this figure often displayed rural socio-economic characteristics. In addition, the urban threshold of 1,000 persons would have over-emphasised the degree of urbanisation in the country.

With the introduction of the Local Government Act, 1976 (Act 171) in Peninsular Malaysia, which called for a restructuring of local authorities, the scenario of urbanisation levels changed dramatically. This Act resulted in instances whereby extensions of boundaries included areas exhibiting rural characteristics within the gazetted areas, thereby creating an 'overbounding' effect of urban areas. Ignoring this restructuring would, on the other hand, result in the 'underbounding' of urban areas as the process of urban sprawl would be disregarded. Similarly, the same problems were also created by the restructuring of local authorities under the Local Government Ordinance, 1961 for Sabah and the Local Authority Ordinance, 1977 for Sarawak. In order to reflect a more realistic situation of urbanisation, areas which were overbounded were adjusted in the 1991 Census.

Hence, the 1991 Population Census saw a new definition of urban areas which was introduced to reflect a more realistic level of urbanisation. This definition was drawn up after several in-depth studies had been carried out to identify the most suitable characteristics to be used for determining urban areas.

As a result, the definition of urban areas used in the 1991 Census, refers to gazetted areas and their adjoining built-up areas with a combined population of 10,000 persons or more. Built-up areas were defined as areas contiguous to a gazetted area which had at least 60 per cent of their population (aged 10 years or more) having modern toilet facilities. However, several exceptions were made to the above definition. Gazetted areas which cover entire administrative districts and areas gazetted prior to the implementation of the restructuring of local authorities under the respective Local Government Act/Ordinance in Malaysia, together with their adjoining built-up areas and having a combined population of 10,000 persons or more were classified as urban areas.

3.   Overall trends and levels of urbanisation

Due to the different thresholds in defining urban areas, data prior to the 1970 Census was adjusted to reflect a common urban population cut-off of 10,000 persons or more to review the changes in the levels and trends in urbanisation over time (Table 1).

In addition, the 1980 data on urban areas have been adjusted to take into account extended areas which have been omitted during the preparation of the 1980 Census due to the late notification of these extended areas from the local authorities. As such, the level of urbanisation for 1980 in this article differs slightly from those published in the official census reports. The rates published in the official census reports are shown in parenthesis in Table 1.

Between 1970 and 2000, the share of the urban population in Malaysia rose dramatically from 26.8 per cent to 61.8 per cent. However, the increase in the urban population was more pronounced during the 1980-2000 period. The sharp increase in the level of urbanisation from 35.8 per cent to 61.8 per cent in this period was largely attributed to the new definition of urban areas in 1991 where built-up areas with urban characteristics were included (Figure 1).

Table 1: Urbanisation levels, urban population growth and tempo of urbanisation, Malaysia

Year	Proportion of population in urban areas (per cent)	Average annual intercensal population growth rate (per cent)	Tempo of urbanisation (per cent)
Malaysia			
1970	26.8	:	:
1980	35.8 (34.2)	5.2 (3.0)	2.9 (2.4)
1991	50.7	5.8 (6.2)	3.2 (3.6)
2000	61.8	4.8	2.2

Footnote: Figures in parenthesis refer to data released earlier in the official census reports.

Figure 1(a): Distribution of population by stratum, Malaysia, 1970 dan 1980
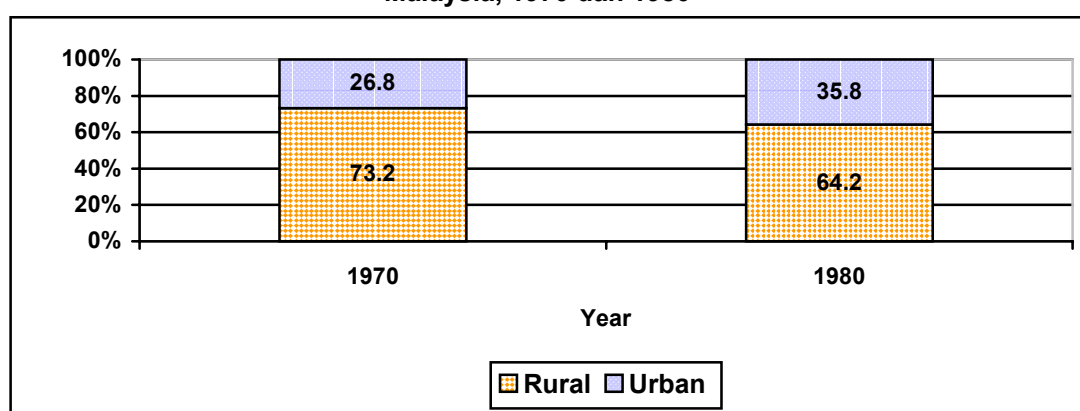

Figure 1(b): Distribution of population by stratum, Malaysia, 1991 dan 2000
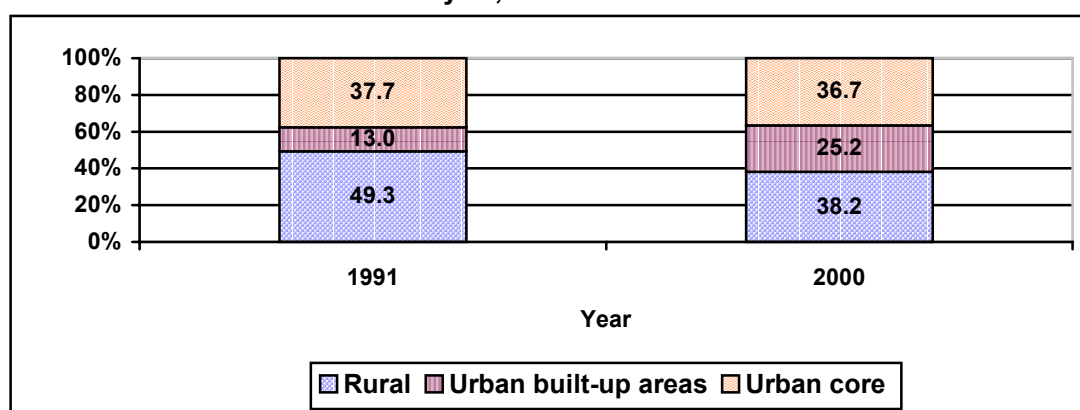
Variations in the rate of urban population growth provide another dimension on the nature of the change in the level of urbanisation over time. A commonly used indicator of urban population growth is the tempo of urbanisation which is a measure of the difference in the growth rate of the urban population and that of the total population. The urban growth rates and tempo of urbanisation during the intercensal periods are also shown in Table 1.

4.   Patterns of urbanisation

In general, the growth of the urban population in Malaysia prior to the Second World War was mainly attributed to the growth of the tin and rubber industry which attracted immigrants from other countries. The post-war intercensal period of 1947-1957 witnessed an upsurge in the average annual growth rate of the urban population, which increased to 5.8 per cent from 3.1 per cent attained during the intercensal period of 1931-1947. This was largely attributed to the relocation of people from the remote rural villages to the security of the towns when a state of emergency was imposed to counter communist insurgency in the country in 1948. Due to this increase, the tempo of urbanisation rose sharply from 1.4 per cent to 3.4 per cent. The relatively low urban population growth rate of 3.2 per cent seen during the 1957-1970 period can be explained by the normalization of conditions after Malaysia gained her independence from the British.

From the 1970s, the average annual growth rate of the urban population as well as the tempo of urbanisation increased. Tables 2 and 3 present the levels and tempo of urbanisation for each of the fifteen states/federal territories of Malaysia in the 1970, 1980, 1991 and 2000 Censuses. In 1991, with the exception of Perlis and Pahang, almost all states had at least a third of their population residing in urban areas. Apart from the Federal Territory of Kuala Lumpur which is also the nation's capital city, the state of Selangor was the most urbanised with 75.3 per cent followed closely by the state of Penang which had 75.0 per cent of its population residing in urban areas. In 2000, all states had at least a third of their population residing in urban areas. Federal Territory of Kuala Lumpur was the most urbanised in 2000 with 100.0 per cent of the area classified as urban, followed by the state of Selangor (88.3 per cent) and Penang (79.5 per cent). Figure 2 shows the ranking of the states in Malaysia according to urbanisation levels in the 1991 and 2000 Censuses.

Between the 1970 dan 1980 Censuses, several states, such as Selangor and Terengganu, showed sharp increases in their levels of urbanisation. While the rise in Selangor can be attributed mainly to the increase in the number of urban towns due to economic growth, the increase in Terengganu was mainly due to the large expansion in the administrative boundaries of its urban areas.

Table 2 further illustrates that, using the 1980 definition, the level of urbanisation in Malaysia in 1991 would be merely 36.3 per cent. This would indicate an increase of only 0.5 percentage points during the last eleven years, which seems unrealistically low in view of the development process that had occurred during this period in Malaysia. In fact, several states would have shown decreases in urbanisation levels if the definition had not been revised in 1991. On the other hand, if the 1991 definition was applied to the 1980 Census, the level of urbanisation of the country in 1980 would have been 38.8 per cent, a difference of 3 percentage points between the two definitions of urban areas. The state which showed the largest change if the new definition was to be applied in 1980 would be Penang, for which the proportion of urban population increased by 8.6 percentage points from 47.5 per cent to 56.1 per cent.

Table 2:   **Level of urbanisation by state, Malaysia, 1970, 1980, 1991 dan 2000**

State	Percentage of urban population					
	1970	1980		1991		2000
		1970/1980 definition	1991 definition	1970/1980 definition	1991 definition	
Johor	26.3	35.2	37.5	32.1	47.8	63.9
Kedah	12.6	22.5	23.0	22.1	32.5	38.7
Kelantan	15.1	28.1	28.1	28.7	33.5	33.5
Melaka	25.1	23.8	27.2	17.9	38.7	67.3
Negeri Sembilan	21.6	32.6	35.9	33.5	42.0	55.0
Pahang	19.0	26.1	26.7	25.9	30.4	42.1
Perak	27.5	33.8	36.4	36.7	53.6	59.5
Perlis	:	8.9	8.9	7.8	26.6	33.8
Penang	51.0	47.5	56.1	39.5	75.0	79.5
Sabah	16.9	19.9	24.4	21.9	33.2	48.3
Sarawak	15.5	18.0	23.9	24.5	37.5	47.9
Selangor	9.5	40.9	46.3	49.4	75.2	88.3
Terengganu	27.0	42.9	42.9	36.9	44.5	49.4
Federal Territory of						
- K.Lumpur	100.0	100.0	100.0	100.0	100.0	100.0
- Labuan	:	46.3	46.3	48.4	48.4	76.8
Malaysia	26.8	35.8	38.8	36.3	50.7	61.8

Figure 2:   **Ranking of urbanisation levels by state, Malaysia, 1991 dan 2000**
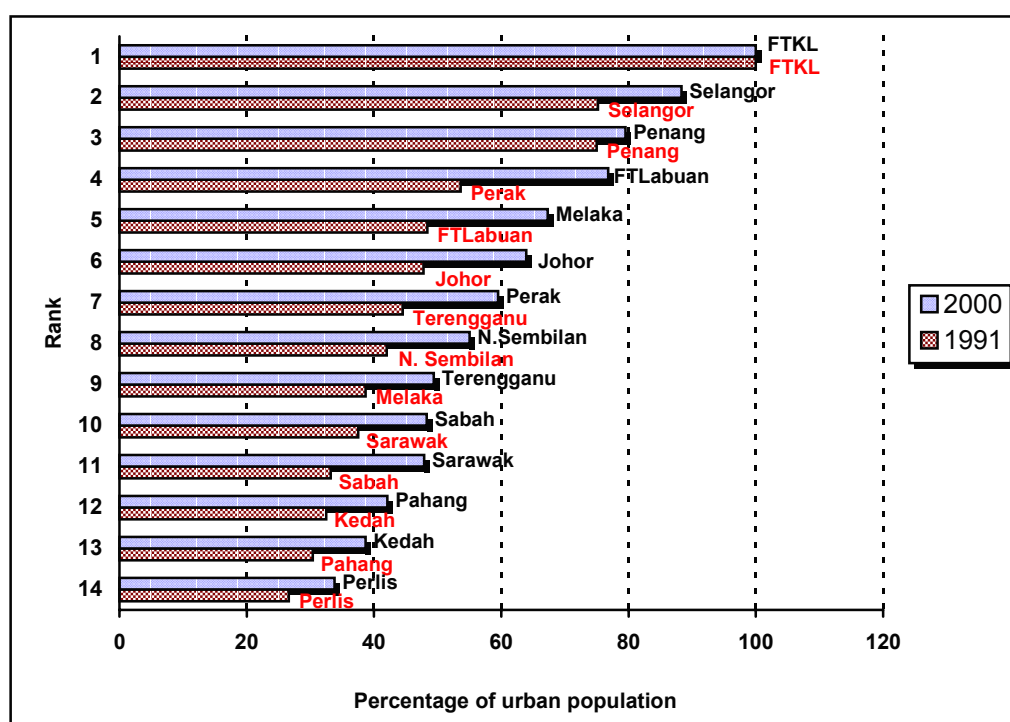
During the period 1980-1991, by using the 1991 definition of urban areas, the urban population grew at a faster rate of 5.1 per cent per annum compared to the average and growth rate of the total population for the country as a whole (2.6 per cent) as shown in Table 3. During the period 1991-2000, the urban population also grew at a faster rate of 4.8 per cent. However, a comparison with the urban growth rates during the last intercensal period showed that the tempo of urbanisation actually declined marginally from 2.9 per cent for the 1970-1980

period to 2.5 per cent for the 1980-1991 period and 2.2 per cent for the 1991-2000 period.

Table 3:   Tempo of urbanisation by state, Malaysia, 1970-2000

State	Average annual growth rates (per cent)						Tempo of urbanisation (per cent)		
	Urban population			Total population					
	1970-1980	1980-1991[+]	1991-2000[+]	1970-1980	1980-1991	1991-2000	1970-1980	1980-1991[+]	1991-2000[+]
Johor	5.1	4.7	5.6	2.1	2.5	2.4	3.0	2.2	3.2
Kedah	7.0	4.9	4.0	1.2	1.7	2.1	5.8	3.2	1.9
Kelantan	8.5	4.5	1.0	2.3	2.9	1.0	6.2	1.6	0.0
Melaka	0.5	4.3	8.1	1.0	1.1	1.9	-0.5	3.2	6.2
Negeri Sembilan	5.5	3.5	5.0	1.4	2.1	2.0	4.1	1.4	3.0
Pahang	7.4	4.0	5.5	4.2	2.8	1.8	3.2	1.2	3.7
Perak	3.1	4.2	2.0	1.1	0.7	0.9	2.0	3.5	1.1
Perlis	:	12.1	3.5	1.8	2.2	0.8	:	9.9	2.7
Penang	0.8	4.2	2.2	1.5	1.5	1.6	-0.7	2.7	0.6
Sabah	5.4	8.5	8.0	3.8	5.7	3.8	1.6	2.8	4.2
Sarawak	3.9	6.7	5.0	2.4	2.6	2.3	1.5	4.1	2.7
Selangor	18.3	8.7	7.8	3.7	4.3	6.0	14.6	4.4	1.8
Terengganu	7.2	3.8	2.7	2.6	3.4	1.5	4.6	0.4	1.2
Federal Territory of									
-K. Lumpur	3.5	2.0	1.4	:	2.0	1.4	:	0.0	0.0
-Labuan	:	7.0	8.0	4.3	6.5	2.9	:	0.5	5.1
Malaysia	5.2	5.1	4.8	2.3	2.6	2.6	2.9	2.5	2.2

Note: + Base on 1991 definition of urban areas.

In terms of urban population growth, Perlis, Selangor and Sabah were the states with the highest growth in urban population between 1980 and 1991. Between 1991 to 2000, the states of Melaka, Sabah, Federal Territory of Labuan and Selangor registered the highest growths in urban population (Table 3). The increase in the urban population of these states was attributed to the movement of in-migrants, both internal and international, to the urban centres as well as the built-up areas contiguous to the core towns.

The state with the highest tempo of urbanisation for the period 1980-1991 was Perlis (9.9 per cent). This was followed by Selangor (4.4 per cent). Between the 1991-2000 period, Melaka was the state with the highest tempo of urbanisation of 6.2 per cent followed by Wilayah Persekutuan Labuan 5.1 per cent. The high tempo of urbanisation was attributed to the rapid economic development in the state which attracted a large inflow of migrants especially to the urban areas as well as the sharp rise in the number of urban towns.

5.   Urban population by size class

The increase in the number of urban centres and the growth of the urban population within each population size class had socio-economic implications on the provision of adequate housing, sanitary facilities and amenities, garbage disposal, health and educational facilities, public transportation as well as other infrastructure.

Table 4 outlined the changes in the number of urban towns across population size class during the intercensal period 1980-2000. The majority of towns moved up the urban hierarchy, that is, by moving higher up in the size population classification.

Table 4: **Comparison of number of urban centres by population size class, Malaysia, 1980, 1991 dan 2000**

Population size class	1980			1991			2000		
	Number of urban centres	Population ('000)	Per cent distribution of urban population	Number of urban centres	Population ('000)	Per cent distribution of urban population	Number of urban centres	Population ('000)	Per cent distribution of urban population
150,000 & lebih	9	2,488.8	56	15	4,799.4	54	27	8,959.1	65
75,000 – 149,999	6	624.4	14	15	1,665.5	19	13	1,387.3	10
50,000 – 74,999	8	489.7	11	9	538.0	6	13	775.5	6
25,000 – 49,999	10	310.0	7	23	810.0	9	34	1,248.2	9
10,000 – 24,999	39	579.5	13	67	1,085.8	12	83	1,390.2	10
All urban areas	72	4,492.4	100	129	8,898.6	100	170	13,760.3	100

The distribution of the urban population of Malaysia in 2000 can be broadly summarized in Table 4 which gives the proportion of the urban population in each size class as compared with the situation in the 1980 and 1991 Censuses. The number of urban towns in the size classes 75,000 persons and above rose sharply from 15 urban towns to 40 urban towns during the intercensal period 1980-2000. This phenomenon is a product of the change in definition as well as population growth due to migration. It is interesting to note that although more than 65 per cent of Malaysia's urban population in 2000 resided in towns in the size class of 150,000 persons and above, Malaysia did not experience the emergence of one all-dominant megacity in the pattern of urbanisation. This is because the urban population of Malaysia is well distributed spatially and is not concentrated in one or two major cities only.

The distribution of the number of urban centres by population size class for the states in Malaysia in 2000 is shown in Table 5. Taking into account all the size classes, Selangor by far had the highest number of urban centres in the country followed by Johor and Perak. In the metropolitan category i.e. population size class of 75,000 persons and above, Selangor topped the list with ten urban centres.

Although a high number of urban centres were found in the 10,000-24,999 persons category, the urban population was not concentrated in that size class. In 2000, all states, with the exception of Perlis and Melaka, had more than half of their urban population in the size class of 75,000 persons and above (Table 5).

Table 5: **Distribution of urban centres by population size class by state, Malaysia, 2000**

| State	500,000 dan lebih	150,000-499,999	75,000-149,999	50,000-74,999	25,000-49,999	10,000-24,999	Total
	Number of urban centres						
Johor	1	1	4	2	5	10	23
Kedah	-	2	1	-	2	3	8
Kelantan	-	1	-	-	1	8	10
Melaka	-	-	1	-	4	8	13
Negeri Sembilan	-	1	-	1	1	3	6
Pahang	-	1	-	-	5	4	10
Perak	1	1	-	1	6	9	18
Perlis	-	-	-	1	-	1	2
P.Pinang	-	2	4	1	2	5	14
Sabah	-	3	-	3	3	6	15
Sarawak	-	3	1	-	-	6	10
Selangor	1	7	2	1	5	16	32
Terengganu	-	1	-	2	-	4	7
Federal Territory of							
- K. Lumpur	1	:	:	:	:	:	1
- Labuan	:	:	:	1	:	:	1
Malaysia	4	23	13	13	34	83	170
	Per cent distribution of urban population						Number ('000)
Johor	38	12	24	6	12	9	1,713.7
Kedah	-	59	19	-	13	8	609.0
Kelantan	-	58	-	-	8	34	430.9
Melaka	-	-	37	-	33	31	404.8
Negeri Sembilan	-	64	-	15	7	14	456.0
Pahang	-	56	-	-	32	12	512.5
Perak	46	17	-	5	17	14	1,163.3
Perlis	-	-	-	81	-	19	67.0
P.Pinang	-	36	42	6	8	9	979.2
Sabah	-	67	-	16	10	7	1,186.9
Sarawak	-	79	11	-	-	11	963.8
Selangor	18	60	6	2	6	8	3,477.9
Terengganu	-	59	-	26	-	15	435.0
Fedaral Territory of							
- K. Lumpur	100	:	:	:	:	:	1,305.8
- Labuan	:	:	:	100	:	:	54.8
Malaysia	23	42	10	6	9	10	13,760.3

6.   Metropolitan towns in Malaysia

The number of metropolitan towns in Peninsular Malaysia which have a minimum population size of 150,000 persons as identified in the 2000 Census, increased markedly from 12 in 1991 to 21 in 2000, while those in Sarawak increased from 1 to 3. However in Sabah, there were three towns classified as metropolitan between 1991 and 2000. In 2000, there were a total of 27 metropolitan towns, in the population size class of 150,000 persons and above in Malaysia (Table 6).

Table 6:   Ranking of metropolitan towns, Malaysia, 2000

Rank	Metropolitan towns	Population ('000)	Rank	Metropolitan towns	Population ('000)
1	Kuala Lumpur	1,305.8	15	Kota Bharu	251.8
2	Johor Bahru	642.9	16	Tawau	213.7
3	Klang	626.7	17	Kajang & Sg. Chua	205.7
4	Ipoh	536.8	18	Taiping	199.3
5	Subang Jaya	437.1	19	Kluang	198.2
6	Petaling Jaya	432.6	20	Alor Setar	186.4
7	Kuching	422.2	21	Georgetown	181.4
8	Ampang Jaya	357.9	22	Sungai Petani	175.0
9	Shah Alam	314.4	23	Selayang Baru	174.6
10	Kota Kinabalu	306.9	24	Batu 9 Cheras/Sg. Raya/ Suntex	174.0
11	Seremban	290.7	25	Miri	169.0
12	Kuantan	288.7	26	Sibu	167.4
13	Sandakan	276.8	27	Bukit Mertajam	167.3
14	Kuala Terengganu	255.5			

In 2000, Kuala Lumpur was the primate city with a population size of almost two times that of the next two largest cities, Johor Bahru and Klang (Figure 3). It is also noted that some of these largest metropolitan towns are also state capitals.

Figure 3:   Ranking of metropolitan towns, Malaysia, 2000
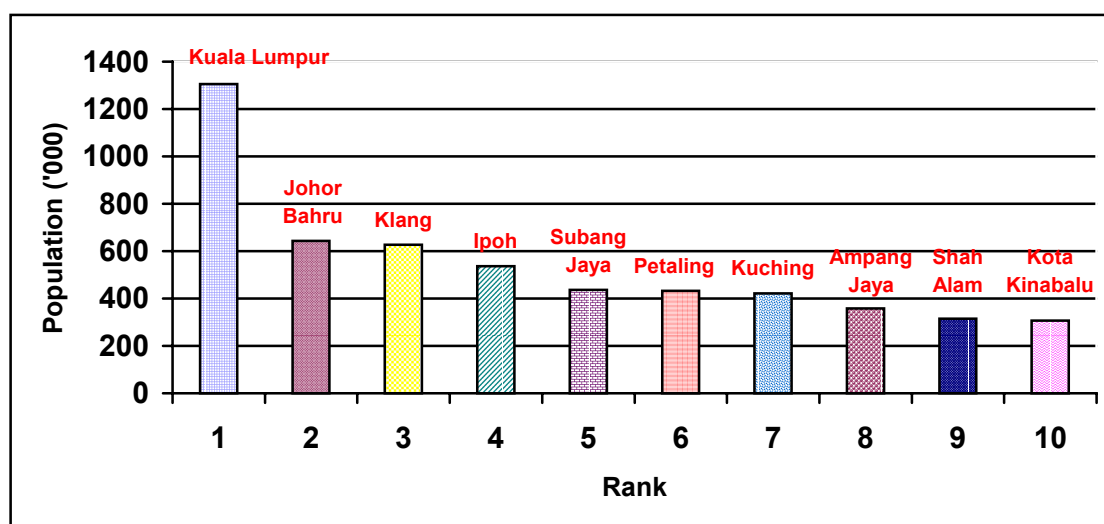
	Kuala Lumpur	Johor Bahru	Klang	Ipoh	Subang Jaya	Petaling	Kuching	Ampang Jaya	Shah Alam	Kota Kinabalu
Population ('000)	1,305.8	642.9	626.7	536.8	437.1	432.6	422.2	357.9	314.4	306.9

In the study of urbanisation, it is important to understand the relationship of primate urban centre and other urban centres. This relationship can be summarised by an index known as Primacy Index (PI). This index is related to the rank-size rule and measures the concentration of population in the primate city in relation to the rest of the other cities. The greater the index value, the greater is the concentration in the largest city. For a group of cities/towns, the PI is the quotient of the largest city divided by the summation of the population of the second and subsequent cities. The rank-size rule means that the second-ranked city is half the population size of the primate city, the third-ranked city is one-third in size and so on.

Table 7 depicts the population concentration of the largest metropolitan town in Malaysia in relation to the next ten metropolitan towns in 1991 and 2000. Under the rank-size rule condition for the 11 largest cities, the PI would be 0.5, that is, $C_1/(C_2 + C_3 + C_4 + \ldots C_{11})$. The PI for the top 11 metropolitan towns in 1980 was 0.47; this implies that the situation in 1980 was very close to the rank-size rule condition. Contrary to the expectation that the PI over the intercensal period would increase, the index for the largest city in relation to the next ten metropolitan towns in 1991 and 2000 fell to 0.38 and 0.30 respectively; this implies that the concentration of population in the primate city was less than that of 1980 and it had moved away from the rank-size rule condition. The drop in the index was attributed to several factors. Firstly, the rate of population growth for the primate city, that is, Kuala Lumpur, declined markedly over the 1980-2000 period due to the effects of net out-migration. Secondly, the high growth rate of the other metropolitan towns brought about by large rural to urban migration and to a smaller extent, expansion of the town boundaries also contributed to the decline in the index for 1991 and 2000.

Table 7: **Primacy Index for major metropolitan towns, Malaysia, 2000 and 1991**

Rank (k)	2000		1991	
	Metropolitan towns	Population ('000)	Metropolitan towns	Population ('000)
1	Kuala Lumpur	1,305.8	Kuala Lumpur	1,145.3
2	Johor Bahru	642.9	Ipoh	468.8
3	Klang	626.7	Johor Bahru	441.7
4	Ipoh	536.8	Klang	368.4
5	Subang Jaya	437.1	Petaling Jaya	351.0
6	Petaling Jaya	432.6	Kuching	277.9
7	Kuching	422.2	Kota Bharu	234.6
8	Ampang Jaya	357.9	K.Terengganu	228.1
9	Shah Alam	314.4	Georgetown	219.6
10	Kota Kinabalu	306.9	Kuantan	202.4
11	Seremban	290.7	Seremban	193.2
	Primacy Index =	0.30	Primacy Index =	0.38

Note: The formula for rank-size rule is $c_k = (c_1/k)$ and the Primacy Index (PI) = $c_1/(\Sigma c_k)$ where c_1 is the population of the largest city and c_k is the population of the kth city and k = 2,3,…,n.

Table 8 traces the growth trends of the 12 largest metropolitan towns in Peninsular Malaysia as identified in the 2000 Census since the 1911 Census. Continuous growth was seen in the population over the past eight decades. The sudden increase in the growth rates of these metropolitan towns over the period 1947-1957 was an effect of the post-World War urban development attributed to the growth of secondary industries. Another reason contributing to the sudden upsurge in urban population growth was also the expansion of boundaries in the respective urban areas. However, the high growth rates of the metropolitan towns of Kuala Lumpur, Kota Bharu, Kuala Terengganu and Kuantan during the 1970-1980 period was due mainly to the restructuring of the local authorities where the boundaries under their jurisdiction were extensively extended.

Table 8:   **Population and rates of change of major metropolitan towns, Peninsular Malaysia, 1911 to 2000**

Metropolitan towns	Population ('000)								
	1911	1921	1931	1947	1957	1970	1980	1991	2000
Kuala Lumpur	46.7	80.4	111.4	176.0	316.2	451.8	919.6	1145.3	1305.8
Johor Bahru	9.4	15.3	21.5	38.8	75.1	136.2	246.4	441.7	642.9
Klang	7.7	11.7	20.9	33.5	75.6	113.6	192.1	368.4	626.7
Ipoh	24.0	36.9	53.2	80.9	125.8	248.0	293.8	468.8	536.8
Subang Jaya	:	:	:	:	:	:	:	79.0	437.1
Petaling Jaya	:	:	:	:	16.6	92.7	207.8	351.0	432.6
Ampang Jaya	:	:	:	:	:	:	:	95.3	357.9
Shah Alam	:	:	:	:	:	:	:	158.4	314.4
Seremban	8.7	17.3	21.5	35.3	52.0	80.9	132.9	193.2	290.7
Kuantan	:	:	:	8.1	23.1	43.3	131.5	202.4	288.7
Kuala Terengganu	14.0	12.5	14.0	27.0	29.4	53.3	180.3	228.1	255.5
Kota Bharu	12.5	10.8	14.8	22.8	38.1	55.1	167.9	234.6	251.8
	Average annual growth rates (per cent)								
	1911-21	1921-31	1931-47	1947-57	1957-70	1970-80	1980-91	1991-2000	
Kuala Lumpur	5.4	3.3	2.9	5.8	2.7	7.1	2.0	1.5	
Johor Bahru	4.9	3.4	3.7	6.6	4.6	5.9	5.3	4.2	
Klang	4.2	5.8	2.9	8.1	3.1	5.2	5.9	5.9	
Ipoh	4.3	3.7	2.6	4.4	4.6	1.7	4.2	1.5	
Subang Jaya	:	:	:	:	:	:	:	19.0	
Petaling Jaya	:	:	:	:	13.2	8.1	4.8	2.3	
Ampang Jaya	:	:	:	:	:	:	:	14.7	
Shah Alam	:	:	:	:	:	:	:	7.6	
Seremban	6.9	2.2	3.1	3.9	3.4	5.0	3.4	4.5	
Kuantan	:	:	:	10.5	4.8	11.1	3.9	3.9	
Kuala Terengganu	-1.1	1.1	4.1	0.8	4.6	12.2	2.1	1.3	
Kota Bharu	-1.5	3.2	2.7	5.1	2.8	11.1	3.0	0.8	

7.   Conclusion

Data from the population censuses show that urbanisation levels in Malaysia are on the rise. The urban population in Malaysia increased by 11 percentage points from 51 per cent in 1991 to 62 per cent in 2000.

It is evident from the 2000 Census that Malaysia does not experience the emergence of a one all-dominant megacity as urban centres in Malaysia are spatially well distributed, and metropolitan towns are located in almost all states with some of them being state capitals.

In conclusion, it can be said that the rapid growth of the urban population will exert pressure on the provision of adequate housing, sanitary facilities and amenities, proper drainage, garbage disposal, health and educational facilities as well as other infrastructure. In this regard, the Malaysian Government has to undertake ongoing projects related to these aspects including environmental issues on smoke, gas emission as well as noise and water pollution caused by increased urbanisation and expanding industries.

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