

Issues of Rural-Urban Transformation on the Fringe of Metropolitan Region: Several Findings from the Selangor Northern Corridor, Malaysia

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DOI Link: <http://dx.doi.org/10.6007/IJARBS/v7-i6/3052>

Published Date: 16 June 2017

Abstract

This article discusses the issues that arise from the spatial transformation process along the Selangor Northern Corridor that have resulted from spill over of the Klang Valley-Langat Metropolitan Region. By using the data gained from the field study and questionnaires distributed to 355 heads of household, three findings were obtained, namely (i) an increase in population is occurring at a rapid pace in several small towns in the study area, (ii) the functions and roles of small towns in the study area have started to change and (iii) the wellbeing of the residents have started to be affected. These findings are important clues about how the rapid urbanisation of the metropolitan area phenomenon has affected small towns and people living in peripheral areas. This conclusion is important as a guide in the planning development of the fringes of the metropolitan region in the future. This is because the transformation process intensified by economic globalisation will continue and without good planning, it is feared that its consequences will worsen.

Keywords: Extended Metropolitan Region, Transformation, Small Town

Introduction

Urbanisation is an increasingly rapid process all over the world, especially in developing countries including Malaysia. The phenomenon of globalisation, especially economic globalisation, has fuelled urbanisation and in turn influenced the formation of urban space in developing countries. One of the effects is the growth of extended metropolitan regions (EMRs), which is creating megacities. Spatial transformation processes, particularly the change of land use, settlement functions and social changes, are happening at a very fast pace. The core area has started to become saturated, eventually leading to the overflowing of urbanisation process to the fringe areas. The peripheral zone of the metropolitan region, including rural areas, is continuously pressured and being turned into cities. Like the inner zone, the fringe zone of metropolitan region is starting to get the attention of investors. The

scenario that occurred in Klang-Langat Metropolitan Urban Region (KLMUR) has demonstrated that economic globalisation can also affect rural areas in a good way, as these areas begin to get the attention of investors. For example, in 2006 the district of Kuala Langat (Selangor) received the highest level of investment in Selangor state (43%) (Katiman, 2006). The fringe zone of the metropolitan region, including the rural areas, remained pressured and is being transformed into cities.

The development of the Klang Valley-Langat Metropolitan Region has been seen up to Rawang (Selangor). Rawang, which was once just a small town, is currently undergoing drastic changes as an effect of this development spill over. The development of the KLMUR also seems to be starting to spread to the 'outer zone', which includes small settlement centres in the Hulu Selangor district (here called the Selangor Northern Corridor). This situation has led to the development of various issues of spatial transformation that are affecting people as well as the environment.

This article discusses the issues that have emerged within the small towns along the Selangor Northern Corridor due to the spatial transformation process that has occurred. The discussion in this paper will focus on three major findings, namely population growth, change of city functions as well as social and physical (environmental) changes. All three of these elements are important indicators to show that the small towns in the study area are now changing due to the transformation processes that are occurring.

Small Towns on the Fringe of Metropolitan Regions in Malaysia

In Malaysia, the growth of cities has occurred rapidly and some big cities such as Kuala Lumpur, Johor Bahru and George Town have formed metropolitan areas. In a metropolitan area, the focus is on the function of major cities in the merging process of the towns nearby in shaping the urban development corridor (Anuar, 2006). When industrialisation occurs, the metropolitan area will tend to begin showing problems associated with the extreme concentration of economic activities and population, leading to manufacturing activity starting to move out of the metropolitan area (Morshidi, 2003). On the outskirts of the metropolitan region development corridor there are small towns which become the focus of development to establish residential areas, industrial estates, hypermarkets and large-scale recreational areas (Anuar, 2006). This puts pressure on the small towns.

The development of small towns around the metropolitan city is the beginning of the formation of megacities. In Southeast Asia, including Malaysia, a region that combines metropolitan cities and rural settlements on the fringe area is called an extended metropolitan region (Extended Metropolitan Region-EMR) (Jones, 2001). In Malaysia, the village areas on the outskirts are the settlements most pressured by the expansion of cities. However, the changes are likely to vary from one city to another (Katiman, 2006). At this time, there is a rapid development of new industrial centres along the southern corridor (Kuala Lumpur-Seremban). The new industrial areas on the outskirts of the cities such as Balakong, Bandar Baru Bangi and Beranang in Hulu Langat, and Nilai and Seremban Dua in Negeri Sembilan are among those rapidly developing within the corridor. In addition, a new industrial area is also growing in several areas in Kuala Langat, Hulu Selangor and Kuala Selangor, each of which is located not far from the Klang Valley. The expansion of industrial areas to the outskirts of the metropolitan region has encouraged the development of new and existing

towns in those areas. This has triggered the process of urbanisation of the villages and expanded the metropolitan city region boundaries (Katiman, 2007).

The development of metropolitan cities and other big cities around the Klang Valley has crossed into rural areas. This has resulted in the rural areas on the outskirts of the metropolitan region also experiencing changes due to rapid urbanisation. As elsewhere in Southeast Asia, the urbanisation of villages on the metropolitan fringes occurs through the development of urban transportation that encourages mobility among the population and the development of land for residential, industrial, and commercial services particularly office space, educational institutions and large-scale retail business, (Hugo, 2003; Jones, 2001). Economic globalisation, particularly with respect to the international trade policies, has a direct impact on metropolitan cities, including those in the developing countries. Relocation of manufacturing activities, especially the assembly and production of electrical and electronic components using unskilled labour, has caused the metropolitan cities in developing countries to receive relatively large amounts of foreign investment.

At the same time, the industrial processes that were concentrated in the core area have led to the metropolis of Kuala Lumpur and other major cities in the Klang Valley-Langat region to experience rapid growth. When the condition of the core area became saturated, manufacturing activity started to spread to the outskirts. The core area became the focus of modern service activities. Residents were also moved to the outskirts, especially to the peri-urban areas. Many of the small towns on the outskirts experienced rapid growth (Katiman, 2007). The development of Kuala Lumpur as a metropolis and the growth of major cities in the surrounding area have affected the small towns and village settlements on the fringes of the metropolitan region. The growth rate of Kuala Lumpur population is slowing down, but that of the small towns on the outskirts is booming. Small towns such as Banting, Kuala Selangor, Salak Tinggi, Hulu Yam, Semenyih, Dengkil, Rawang, Serendah, Sepang, Batang Berjuntai and Rasa, have experienced rapid population and economic growth as a result of this globalisation phenomenon (Katiman, 2007).

Background of the Study Area and Methodology

The study was conducted in the district of Hulu Selangor, which is one of the districts in Selangor Darul Ehsan. Of the ten districts in Selangor, Hulu Selangor is the biggest, with an area of 174,047 hectares. Hulu Selangor has 13 sub-districts, namely Hulu Bernam, Kalumpang, Kuala Kalumpang, Sungai Gumut, Sungai Tinggi, Kerling, Ampang Pecah, Buloh Telur, Pertak, Rasa, Batang Kali, Ulu Yam and Serendah. The total population of the district was 198,132 in 2010. In particular, this study focused on the Selangor Northern Corridor, which is approximately 48 km long. Within this corridor lie seven small towns in the district of Ulu Selangor (Figure 1). This area is called the Selangor Northern Corridor because it is located on the northern side of Selangor. It follows the old road from Perak to Kuala Lumpur from before the North-South Highway was built. At this point, the Northern Corridor is more like a peri-urban area and the majority of its land use is agricultural.

However, based on the fact that the development of the Klang Valley-Langat Metropolitan Region has started to spread to the 'outer zone', it is assumed that the transformation process will take place in the corridor's surrounding area. The small towns near the city of Rawang such as Serendah, Batang Kali and Bukit Beruntung are now changing

in their functions and roles. And other small towns such as Rasa, Kuala Kubu Bharu, Kerling, Kalumpang and Ulu Bernam are now being slowly transformed.

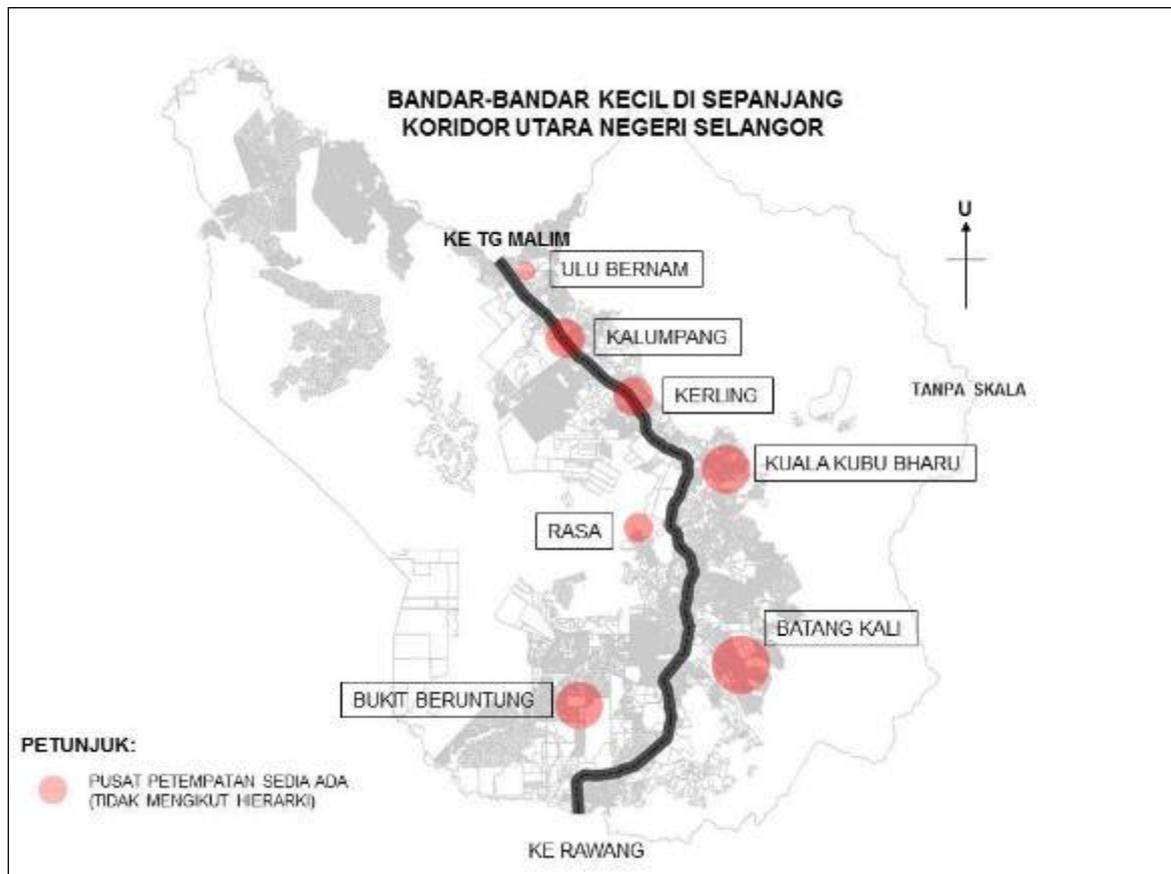


Figure 1: Small towns along the Selangor Northern Corridor

In this article, the discussion and elaboration of the findings were based on the primary data obtained from field study and secondary data obtained from written and printed sources/materials, particularly from the 1980-2010 population and housing census report, the regional Development Plan (Selangor Structure Plan and Hulu Selangor Local Plan) and related printed/written materials. While the primary data consisted of field observations and household survey conducted with 355 heads of household randomly selected from various types of residence available in the study, area such as traditional Malay villages, new or clustered villages, and housing areas around the selected settlement centres. Household survey data were then analysed by using several methods such as frequency analysis.

Findings

The result of this study refers to three key findings related to the process of spatial transformation that occurred in the study area, namely, (i) an increase in population began to occur at a rapid pace in several small towns in the study area, (ii) the main function of the small towns in the study area is currently starting to change, and (iii) social and physical wellbeing of the population started to be affected. These changes may seem small, but they are issues that must be addressed immediately by the authorities because the effects of urbanisation spill over have affected the spatial transformation process and subsequently changed the life of people in the small towns of the study area.

i) Trends in Population Growth

Analysis on the population growth trends is important for the purpose of estimating the future size of the city, job opportunities, infrastructure and social facilities requirements. This is because, according to Weeks (2008), population growth is a major factor leading to social and technological changes in all parts of the world. When changes occur in a population of an area, indirectly technological and social changes will also occur. The change of population from a small to a bigger number will affect the urbanisation process of an area. An area with a high rate of urbanisation is likely to have a large population. The large population can be the result of natural growth or the outcome of in-migration. This population growth is a process of urban transformation from a small town to a larger city.

Table 1 shows the trends in all the small towns located in the district of Hulu Selangor from 1980 to 2010. In 1980, there were 5612 people all across the study area. This number increased to 35,668 people by 1991. By 2000 the population in the study area had increased to 70,856 people and population growth continued to increase, reaching 88,669 in 2010 (Table 1). Detailed analysis found that the number of small towns such as Kalumpang, Kerling, Rasa, Serendah and Batang Kali are the declined with less concentration of population which were less than 1000 people over the 1980s. However, these small towns had shown rapid increase in the number of people in the years up to 2010. Other settlement centres such as Bukit Beruntung, Serendah and Kuala Kubu Bharu showed a consistent annual increase in the total population, particularly over the period of 2000-2020.

Table 1:
Trends in Population Growth of the Study Area 1980-2010

Settlement Centre	Year				Annual Growth (%)		Population
	1980	1991	2000	2010	1980-1991	1991-2000	2000-2010
Batang Kali	220	3545	3858	4205	18.8	0.94	0.9
Bukit Beruntung	0	0	19322	20200	-	-	0.5
Kalumpang	643	4132	5064	5975	6.4	2.04	1.7
Kerling	523	2810	2717	2018	5.4	-0.37	-0.3
Kuala Kubu Bharu	1736	11972	17763	24637	12.3	4.39	3.2
Rasa	919	4492	7704	11864	5.4	6.02	5.8
Serendah	535	3558	7658	11221	11.5	8.39	6.2
Ulu Bernam	1035	5159	6770	8579	6.3	3.02	2.3
TOTAL	5612	35668	70856	88699	16.65	7.57	2.2

Source: The 1980, 1991, 2000 and 2010 Population and Housing Census

In terms of the annual population growth rate analysis, as a whole it was found that the annual population growth trend of the study area has started to show a significant decline, from 16.65% a year over 1980 to 1991 to 2.2% a year over the period of 2000-2010. However, this downward trend is not a concern because in the meantime the population growth is still at a very high level, which suggests that the study area is experiencing a process of population concentration.

A more detailed analysis of the small towns in the study area shows that over the period of 1980-1991, Batang Kali recorded the highest annual growth rate of population at 18.8% a year, and followed by Kuala Kubu Bharu (12.3% a year) and Serendah (11.5% a year). Rasa and Kerling recorded a lower annual growth rate than other settlement centres in the study area, at 5.4%.

Over the period from 1991 to 2000, the highest annual growth rate of small settlement centres in the study area was recorded in Serendah at 8.39% a year (from 3558 to 7658 people), followed by Rasa (6.02%), Kuala Kubu Bharu (4.39%), Ulu Bernam (3.02%), Kalumpang (2.04%) and Batang Kali (0.94%). However, there was a settlement centre that recorded a negative growth, which was Kerling with a growth rate of -0.37% a year, a decrease in the population from 2820 in 1980 to 2717 in 1991.

As for the period of 2000 to 2010, Serendah once again had recorded the highest annual growth rate of 6.2%, from 6,770 people (2000) to 11,221 people (2010). Rasa recorded the second highest growth rate of 5.8% a year, followed by Kuala Kubu Bharu at 3.2% a year. While once again Kerling recorded a negative growth trend of 0.3% a year over the same period. In terms of total population, Kerling also recorded a decline of 699 people in the total population over the period 2000-2010.

Based on these results of population growth analysis, there are several interesting findings. First, the fact that Serendah consistently experienced the highest annual growth trend was as expected. This is because of its location close to the town of Rawang, a small town undergoing rapid transformation as a result of the Klang Valley-Langat metropolitan region spill over. The spread of the Klang Valley-Langat metropolitan region has a huge impact on Rawang. Since this influence of urbanisation has not stopped, Serendah is being affected and it is characterised by the increase in population and a high annual growth rate.

Second, the emergence of Bukit Beruntung as a new main settlement centre with great potential. After its construction and opening in the 1990s, it began to record a large increase in population. Although the rate of population growth between 2000 and 2010 for Bukit Beruntung was low (0.5%), in terms of numbers, it recorded a relatively high increase in population of 868 people. In terms of function and role, at this point, Bukit Beruntung has complete range of function and roles. Provision of social and educational facilities, as well as commercial facilities such as hypermarkets and residential areas, has drawn people to the area. In addition to this, placing industrial estates in this area has turned Bukit Beruntung into a preferred residential area for industrial workers because of its location and accessibility.

Third, the role of Kuala Kubu Bharu has been strengthened. Kuala Kubu Bharu is the administrative centre for the district of Hulu Selangor, other than being the administrative centre it also provides a commercial centre and residential areas. It currently has the highest population compared to other settlements in the study area. Its role was the reason for a consistent increase in the population.

Fourth, the decline of Kerling as a small settlement centre can be seen to be significant. The failure of the Lembah Beringin project and some other housing projects has resulted in the continuing decline in Kerling's population. Population decline is an important indicator of the decline of settlement centre. This is a major issue that must be addressed immediately to

ensure that all small settlement centres along the Selangor Northern Corridor can keep on developing and growing.

ii) Functional Changes of Small Towns

Functions can be defined as economic and social activities conducted in a city, determined by the supply of goods and services and the facilities offered to the city's population, as well as the areas within its sphere of influence. The number of functions refers to the total number of functions available in the settlement. Functions, the number of functions and its business units are three things that are focused on in observing the distribution of current economic activity carried out in the study area. The role played by the small towns surveyed was also observed.

In total, there are 1116 economic functions of multiple order items and 224 non-economic functions in all the small towns of the study area (Table 2). Of these, Batang Kali offers the highest number of economic functions of 389 functions, while Kerling offers the least number of economic functions, with 39.

Table 2:
Supply of Economic and Social Functions by Small Towns

Small town	Number of Units of Economic Function
Batang Kali	389
Kuala Kubu Bharu	195
Bukit Beruntung	153
Ulu Bernam	136
Serendah	80
Rasa	77
Kalumpang	47
Kerling	39
Total	1116

Source: Field Study September, 2013

According to Satterthwaite and Tacoli (2003), small towns generally serve as a central marketing location for agricultural products, as well as a centre for the production/distribution of goods/services for rural areas. Often small towns are places where people get basic stuff for agriculture, such as machinery, fertiliser and agricultural equipment. In addition, small towns are also a place where farmers sell their vegetables, fruits and livestock. Therefore, it could be expected that the functions supporting both roles would be offered in abundance by these small towns.

However, that is not the case. Findings in the field clearly show a decline in the supply of functions that support the role of a small town in terms of the marketing and provision of agricultural needs. For example, there were only two premises that function as purchasers of rubber or palm oil in the small towns of the study area. In addition, there was only one fertiliser/agricultural shop in the small town area of the study area and two premises that sold fruit in the small town of the study area (see Table 3).

Table 3: Traditional Services Function in Small Town

Type of Function/ Area	Licensed Rubber & Palm Oil Purchaser	Fertiliser/Agricultural Equipment Shop	Fruits Shop
Ulu Bernam	0	0	1
Kalumpang	0	0	1
Kerling	1	0	0
Kuala Kubu Baharu	0	0	1
Rasa	1	0	0
Btg Kali	0	1	0
Grand Total	2	1	3

Source: Field Study of Economic Function, March 2014

The supply of basic functions that support the agricultural sector at a very small scale is an important indicator of two things, namely (i) that the small towns in the study area are currently undergoing the process of economic modernisation, and (ii) the lack of demand for basic agricultural items from the areas under the influence of the small towns in the study area was due to agricultural activities no longer being the dominant economic activity.

At the same time, the loss of traditional basic functions has now started to be replaced by more modern functions. The globalisation process has, to some extent, led to changes in the supply function. Functions with more modern globalised features have been detected in the study area. The existence of two hypermarkets in the study area (Eonsave in Batang Kali and Tesco in Bukit Beruntung) shows that there is a demand among people to shop in a one-stop supermarket instead of following more traditional retail habits (see Table 4).

Table 4:
Supply of More Modern and Globalised Functions

Types of Function	Total
Hypermarket/Cash & Carry	4
Insurance Agents	18
Travel/Ticket Agents	5
Hotels/Guesthouses	10
Total	37

Source: Field Study of Economic Function, March 2014

In addition, the large increase in the supply of modern economic functions such as insurance agents, ticket agents and hotels is early indication that the study area is being strongly affected by the economic globalisation in the central area of the metropolitan region.

iii) The Wellbeing of Residents Started to Get Affected

The process of urbanisation and spatial transformation that has occurred in the outskirts of the metropolitan area has significantly affected the population socially and economically. Urbanisation has caused changes in terms of both of socio-economic characteristics and the culture of the population on the fringes of the metropolis (Yazid *et al.*, 2016). In addition, urbanisation has affected not only the towns' physical and economic situation, it has also brought changes in the social aspect of the population (Yazid *et al.*, 2012). Once quiet areas are now becoming more boisterous and noisy, and once 'safe' areas now see their wellbeing threatened (Tacoli, 1998). Crime has risen as a result of various factors such as poverty, social exclusion, the arrival of immigrants, especially illegal immigrants. In the case of the study area,

from the total of 355 heads of household surveyed, most of them agreed that the wellbeing of the population's daily life has started to be affected (see Table 5).

Table 5:
Respondents' Perception of the Study Area (N=355)

INDICATOR	TOTAL (%)	INDICATOR	TOTAL (%)
SOCIAL		ENVIRONMENT	
Property Theft		Air Pollution	
Agree	152 (49)	314 (88)	
Disagree	203 (51)	41 (12)	
Housebreaking/Armed Robbery		Noise Pollution	
Agree	139 (39)	257 (72)	
Disagree	216 (61)	98 (28)	
Influx of Immigrants		Quality of Domestic Water	
Agree	112 (32)	244 (69)	
Disagree	243 (68)	111 (31)	

Source: Field Study of Household, June 2014

For social welfare, three indicators were adopted, namely property theft, housebreaking/armed robbery and the perceived influx of illegal immigrants. There were also three environmental indicators, namely air quality, noise pollution and water quality.

In general, for social indicators, property theft is the case that frequently occurred in the study area, a total of 152 heads of household (49%) agreed that this case had occurred in the study area and the remaining 203 of them (51%) disagreed. This is followed by housebreaking/armed robbery (39% agreed, 61% disagreed) and the influx of illegal immigrants (32% agreed, 68% disagreed).

For environmental indicators, air quality is the indicator with the highest negative response from the heads of household. A total of 314 heads of household (88%) agreed that air quality in the study area has affected their health. This is followed by noise pollution (257 respondents (72%) agreed) and a total of 244 heads of household (69%) agreed that the quality of the domestic water supply has started to be affected in the study area.

Based on these findings, it can be concluded that the wellbeing of population in the study area, especially social and environmental aspects, has started to be affected. Although it only represents the views of the heads of household, it is an important indicator that the study area at the moment is undergoing social and environmental transformation as a consequence of urbanisation spill over from the central area of the Klang Valley-Langat Metropolitan Region.

Summary

The discussion in this article only dealt with the findings relating to three elements, namely population change, change in economic functions and the impact on wellbeing. These findings are evidence that the spatial transformation process is taking place and affecting the study

area. The small towns along the Selangor Northern Corridor which used to be quiet and isolate, has now started to be affected by the development of the Klang Valley-Langat extended metropolitan region. Even though the changes are slow compared to the small towns in the south of the metropolitan region, such as Dengkil, Sepang and Nilai, it is an important indicator that should be taken into consideration to ensure that the small towns along the Selangor Northern Corridor can continue to develop and grow in line with the rapid urbanisation in the central area, especially in the Klang Valley-Langat Metropolitan Region.

Acknowledgement

The discussion in this article was part of the research findings entitled 'Detecting Changes in Small Settlement Centres in Selangor's Northern Corridor Resulted From the Spillover of Lembah Klang-Langat Metropolitan Region' funded by the Research Acculturation Grant Scheme (RAGS), Ministry of Higher Education (2013-0016-106-72).

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