

# **Transformation of Urban Villages: Preliminary Findings on the Wellbeing of Small City Residents in the Fringe of Malaysian Metropolitan Region**

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## **Abstract**

This article discusses some of the findings about the wellbeing of residents as a result of spatial transformation process currently happening in several selected small cities along the Selangor's Northern Corridor. By adopting the data obtained from the field work survey and questionnaire distributed to 355 heads of household randomly selected in the study area, some of the findings include (i) the social harmony state of the residents is starting to get affected, (ii) transformation of traditional to modern lifestyle, (iii) increasingly significant deterioration of physical environment. These findings are important indicators of the effects that the fast pace of spatial transformation has on the wellbeing of the residents. These findings are important guidelines for future development planning of the study area. This is because the spatial transformation process promoted by economic globalisation will continue to happen and without proper planning, it is feared that the implication towards the wellbeing of the residents will become worse.

**Keywords:** Transformation, Quality of Life, Selangor's Northern Corridor

## **Introduction**

Urbanisation is an increasingly growing phenomenon around the world, particularly in the developing countries including Malaysia. Among the phenomena of rapid urbanisation growth process seen in this country is urbanisation spillover. The impact of a rapid urbanisation spillover process in the central metropolitan region brings about various forms of village transformation issues in various aspects of life of the residents living around the outskirts of the region. The issues that had always been debated among previous researchers are related to the transformation or changes of the village area within the urban fringe zone that affect various aspects of life. Among the issues of focus are about the development and urbanisation of small cities that are rapidly growing in the urban fringe area. The flow of urbanisation in this country is moving so fast within the last six decades and will continue on in the future. Urban development is not only concentrated in the big cities but also in the small and medium-sized cities within the urban fringe area, growing in line with the big cities.

In the context of Malaysia, small cities especially those located within the developed area are the settlements that can be considered dynamic as they are influenced by the booming economic development of the nearby developed region. In this country, a small city is defined by a city with population ranging between 10 000 to 79 999 (Jamaliah, 2004). In 2000, Malaysia had a total of 170 settlements namely the cities and 130 of them are small cities (Refer Table 1). This is an encouraging sign because in 1991, the total number of small cities in Malaysia was only 99 (Jamaliah, 2004). What can be concluded is that the urbanisation process is increasingly booming and resulting in the establishment of a lot of small cities especially the ones that came to exist as a result of rapid urbanisation process.

Table 1: Small cities in Malaysia

<b>POPULATION SIZE</b>	<b>NUMBER OF CITY CENTRES</b>	<b>NUMBER OF RESIDENTS('000)</b>	<b>PERCENTAGE DISTRIBUTION (%)</b>
150 000 and more	27	8 959.1	65
75 000 – 149 999	13	1 387.3	10
50 000 – 74 999	13	775.5	6
25 000 – 49 999	34	1 248.2	9
10 000 – 24 999	83	1 390.2	10
<b>TOTAL</b>	<b>170</b>	<b>13 760.3</b>	<b>100</b>

*Source:* Modified from Jamaliah (2004)

Nowadays, globalisation has huge impact on urbanisation process in Malaysia especially in Lembah Kelang area. The flowing in of foreign capitals through multi-national companies has accelerated the urbanisation process. Although the urban boundaries remain, but the implications and influences of urbanisation still occur in the urban fringe area and has been increasingly booming lately.

For example, the spillover effect of Lembah Klang-Langat Metropolitan Region that has currently started to be seen in Hulu Selangor and Kuala Langat. The Advanced Metropolitan Region of Lembah Klang-Langat refers to the entire metropolitan city area of Kuala Lumpur and urban conurbations and other settlements located within Lembangan Sungai Klang and Sungai Langat. This region includes Kuala Lumpur City (Federal Territory of Kuala Lumpur) as the central zone, the suburban areas of Petaling Jaya, Subang Jaya, Ampang Jaya, Selayang, and other cities nearby especially Shah Alam, Kajang, and Klang as the inner zone. While areas within the districts of Hulu Selangor, Kuala Selangor, Sepang, and Kuala Langat are categorised as the outer zone (Katiman, 2006).

Outer zone refers to the outskirts area of the metropolitan region characterised by the small cities. Economic globalisation process and development of advanced metropolitan region have gradually brought in various kinds of huge impacts on the settlements of this outskirts zone. In the south, small cities such as Dengkil, Kajang, Semenyih (Selangor); and Nilai, Mantin,

and Seremban (Negeri Sembilan) have drastically transformed or at least have shown/are showing significant transformation features (Abdul Samad et al., 2006 & Katiman, 2007). While in the north side, Rawang Town which was once just a small town is now going through drastic changes as an effect of this development spillover. The increasingly rapid urbanisation process resulted from the globalisation influence has not only changed the functions and roles of these cities which were once known as small towns, but at the same time has impacted the wellbeing of the residents.

Initial observation discovers that the spillover of Lembah Klang-Langat Metropolitan Region has begun to spread to the small settlements in Hulu Selangor such as Batang Kali, Bukit Beruntung, Rasa, and Kuala Kubu Bharu which are now featured with changes in the land use, infrastructure development as well as offering of various more modern city functions. Therefore, the purpose of this article is to analyse the implication of urbanisation that is currently happening towards the residents in the study area.

### **The Wellbeing in the Outskirts of Metropolitan Region**

Discussions on the quality of life and wellbeing are growing and involving all aspects that influence the life of individuals, society, or even a nation. Emphasis on the quality of life and wellbeing is mostly conducted in urban context but the discussion is extremely complex as it involves many components. Studies carried out are significantly in the aspects of materials, health, physical, and recreational opportunity as well as the subjective aspects which include human living environment in terms of wellbeing and satisfaction.

Generally, wellbeing is a way of life towards achieving the optimum level of health and individual welfare, which includes physical, mental, and spiritual that are being integrated by an individual for a quality living in the community. It includes seven dimensions of wellbeing, namely, emotions, career, social, physical, intellectual, spiritual, and environmental. However, previous researchers have detailed the measurement of wellbeing by referring to several elements such as the quality of housing (Haryati, 2007), neighbourhood and social (Hafazah, 2008), safety and accessibility (Lee & Guest, 1983), social life (Wan Rozali, 2010), senior citizens (Wan Ibrahim, 2000) and others.

It is undeniable that urbanisation spillover to the outskirts area promises a change for the better in the quality of life. It can improve the standard of living of the society in the surrounding area if seen from the outside. However, the turmoil of social problems and the diversity of urban fringe development should not abandon the inner essence of humanity that can be easily changed as their surroundings change. The most significant effect of development that can be seen is in the changes of the nature that are leading towards the negative impacts such as cutting off trees which causes the loss of greenery, apart from environmental changes due to the 'global warming', the cloudy drainage and rivers, hills that are no longer able to bear the strength of holding the earth together, and many more (Samruhaizad et al., 2014).

In the Malaysian context, the process of urbanisation has led to other problems such as pollution, lack of resources, and social problems in the community. According to Azahan (2004), uncontrolled urbanisation will ultimately result in the deterioration of the quality of life and wellbeing of the society. Issues on the wellbeing of urban society are much discussed, but specific discussion in the context of the wellbeing of society living in the outskirts of metropolitan region is still lacking. There is not much focus given to the rural-urban fringe area which is the outskirts area and the settlements around the urban border that are experiencing the pressure of development. The fringe area is advantageous of a particular land use. The growing land use resulted from the urban sprawl has attracted people from the central area and more to that is the improved transport facilities which has made the area a centre of attraction.

According to Katiman (2006), the growing of population in the metropolitan fringe zone has promoted establishment of new urban settlements which further changed the employment patterns of the residents to become more modern. Urbanisation and industrial development on the outskirts area have caused more households to engage in urban economic activity, particularly industrial and services. Community participation in modern economic activities will be able to increase their income and in turn leads to better changes in the quality of life. Therefore, various basic amenities, social services, and infrastructures such as highways and roadnetworks connecting the metropolitan city and fringe area, the lives of people in this zone are not much different from the cities within the inner and central zones of Lembah Klang-Langat Extended Metropolitan Region. Households on the outskirts can enjoy facilities as the ones in the cities, within the rural-urban surrounding with low cost of living such as the low rental rate of properties.

Urban growth on the outskirts area does not only change the economic activity but also grants the local residents access to urban services and infrastructural facilities. However, at the same time, the urbanisation that is increasingly spreading to the outskirts area brings about socioeconomic and sociocultural issues such as increased pollution, social problems, crimes, and theft which are affecting the wellbeing of the residents in the outskirts metropolitan region as discussed by Anuar (2006), Azahan et al. (2009), and Samruhaizad et al. (2014).

### **The Background of the Study Area and Methodology**

This study was conducted in Hulu Selangor, one of the districts in Selangor Darul Ehsan. Hulu Selangor is the largest district that covers an area of 174,047 hectares with nine other districts in Selangor state. Hulu Selangor has 13 parishes, 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 in this district was 198,132 in 2010 (Department of Statistics, 2011). This study is particularly focused on the northern corridor of Selangor which covers an area of approximately 48 km length. In this corridor lie seven small towns in the district of Hulu Selangor (Figure 1). This area is called the Northern Corridor of Selangor because of its location at the north side of the state. It is an old road to get from Perak

to Kuala Lumpur before the North-South Highway was built. At this point, the northern corridor is more peri-urban and the majority of its land use consists of agricultural land use.

However, based on the justification that the development of Lembah Klang-Langat Metropolitan Region seems to have begun spreading to the 'external zone', it is assumed that transformation process is about to take place in the surrounding area of the corridor. The small towns located near the city of Rawang like Serendah, Batang Kali, and Bukit Beruntung are undergoing changes in terms of functions and role. While other small towns such as Rasa, Kuala Kubu Bharu, Kerling, Kalumpang, and Ulu Bernam are now being transformed slowly.

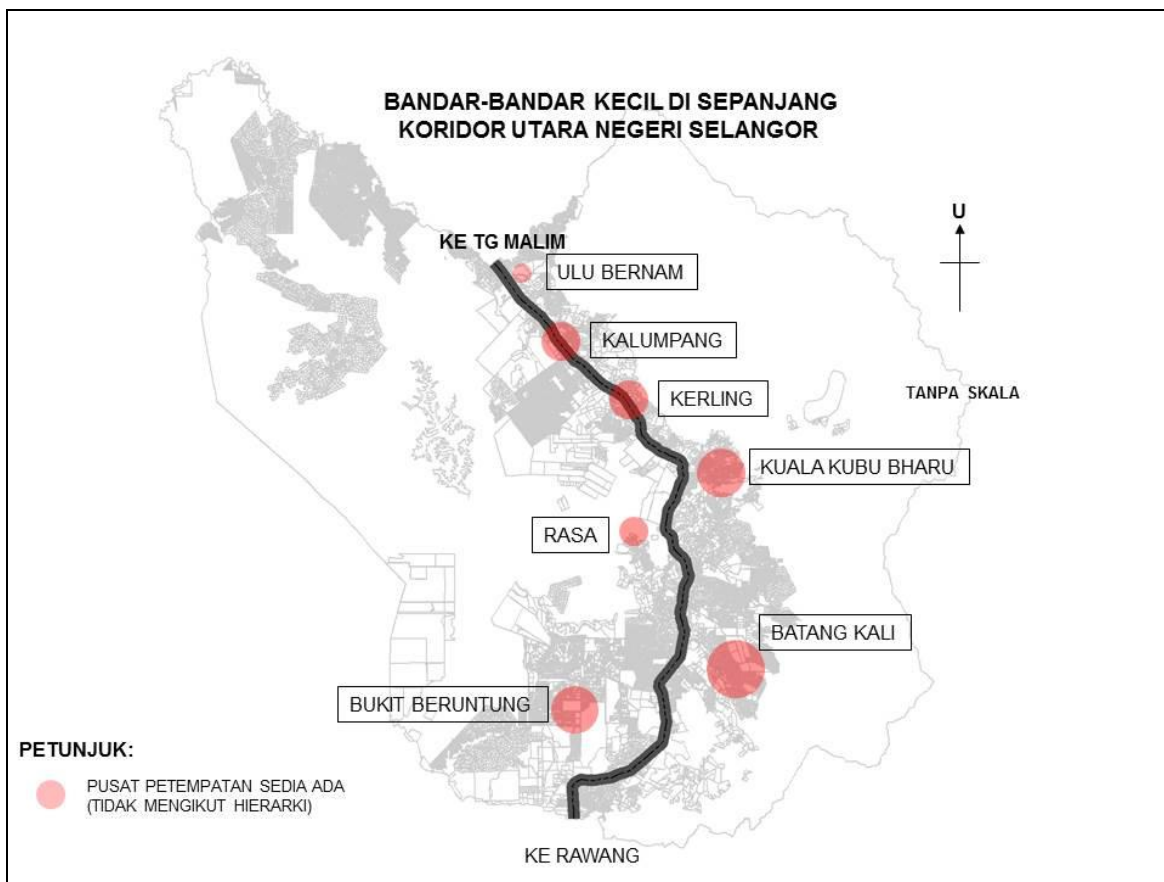


Figure 1: Small cities along the Selangor's Northern Corridor

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

## **Findings and Discussion**

The results of this study referred to three key findings related to the spatial transformation that occurred in the study area, namely, (i) social harmony of the population that has begun to get affected, (ii) occurrence of a change in lifestyle of people from traditional to more modern, and (iii) deterioration of the physical environment which is already taking place. These changes, though seemingly small, are significant in providing evidence that the spillover effects of urbanisation have affected the spatial transformation process and further changed the lives of people in the small towns of the study area.

### **(i) Social Harmony of Residents Has Begun to Get Affected**

The security of the neighbourhood area is part of the important aspects in the wellbeing of the residents. This is because a neighbourhood area that is safe, harmonious, peaceful or tranquil will provide a prosperous life for the people. Incidents of crime and mishaps such as cases of property theft, robbery and armed robbery, drug addiction as well as other social problems such as illegal immigrants, drug abuse are among the conditions that contribute to the existence of discomfort among residents in small urban areas within the study area.

In the case of the study area, the neighbourhood environment in small towns in the study area is a safe place to live in. Based on the households survey finds that the majority of the household heads responded that the neighbourhood area was currently safe. Almost all of the household heads participated in the survey responded 'agree' that their neighbourhood is safe to live in (Table 2). More than 60 percent of them live in the surrounding neighbourhood centres farther away from the central zone such as the area around Ulu Bernam, Kalumpang, Kerling, and Rasa. Because they feel that their homes are currently safe to live in, most of the residents agree to choose to keep living in the neighbourhood for the next 10 years.

Overall, it can be concluded that the neighbourhood of low-populated small towns, namely, Hulu Bernam, Kalumpang, and Kerling are among the small cities with safe neighbourhood area to live in for a long period of time compared to other small cities in the study area.



Table 2: Perceptions on the safety condition of neighbourhood area (N=355)

Indicator/Perception	Neighbourhood centre															
	Hulu Bernam		Kalumpang		Kerling		Kuala Kubu Baru		Rasa		Bukit Beruntu		Batang Kali		Serendah	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
<b>Neighbourhood condition is safe to live in</b>																
Agree	45	86.5	11	91.6	4	66.7	41	85.4	9	90	34	85	5	82.1	10	83.8
Disagree	7	13.5	1	8.3	2	33.3	7	14.6	1	10	6	15	1	17.8	20	16.2
<b>Total</b>	<b>52</b>	<b>100.0</b>	<b>12</b>	<b>100.0</b>	<b>6</b>	<b>100.0</b>	<b>48</b>	<b>100.0</b>	<b>10</b>	<b>100</b>	<b>40</b>	<b>100.0</b>	<b>6</b>	<b>100.2</b>	<b>12</b>	<b>100.4</b>
<b>Safe for the next 10 years</b>																
Agree	48	92.3	10	83.3	5	83.3	43	89.6	8	88.9	28	70.0	4	77.9	84	68.3
Disagree	4	7.7	2	16.7	1	16.7	5	10.4	1	11.1	12	30.0	1	22.4	39	31.7
<b>Total</b>	<b>52</b>	<b>100.0</b>	<b>12</b>	<b>100.0</b>	<b>6</b>	<b>100.0</b>	<b>48</b>	<b>100.0</b>	<b>9</b>	<b>100</b>	<b>40</b>	<b>100.0</b>	<b>6</b>	<b>100.3</b>	<b>12</b>	<b>100.3</b>

Source: Household Survey (2014)

**(ii) A Change in Lifestyle (Through Property Ownership)**

Modern home appliances as well as ownership of assets are two other elements surveyed to observe on the wellbeing of population lives in the suburbs. Modern basic home appliances are important feature in big city homes. The affordability to have modern appliances at home as well as other assets indicates that the households in small cities have the desire and affordability to have a modern lifestyle which to a certain extent describes the wellbeing of their lives in this modern era. Therefore, this can contribute to a comfortable home with efficient home living management to ensure a more prosperous quality of life. Property ownership such as house equipment and appliances is a good indicator of social status in a society.

In general, the average monthly income of the household heads surveyed is classified as middle income groups. It means that with this middle category income the household heads in the study area can afford to own assets and have good provision of appliances for their homes. Overall, majority of household heads in the study area possess good modern home appliances. The results of the survey find that among the appliances owned by the household heads at their homes were television (99.7%), fan (96.6%), computer (63.7%), and washing machine (87.3%). It was also found that 55.1 percent of the home samples had Internet access (Table 3).

From the ownership of home appliances, element of asset ownership was also surveyed to find out the status of valuable asset ownership among household heads. In general, the household heads in this district are those of medium and high income groups. A household with high socio-economic status commonly tend to own asset or property such as land lot, shop lot (business premises), rented house as well as own house. Based on surveys, it was found that ownership of shop lot among household heads in Bukit Beruntung showed high percentage (20 percent). In terms of house ownership whether it is rental or of their own, majority of household heads lived in houses that they owned (Table 3). This shows that most households on the urban fringe in this district have no housing problem.

Table3:Home appliances and assets ownership of the household heads in the study area

Ownership	Location of settlements /percentage							
	Hulu Bernam	Kalumpang	Kerling	Kuala Kubu Bharu	Rasa	Bukit Beruntung	Batang Kali	Serendah
<b>Home appliances</b>	<b>Percentage (%)</b>							
Television	14.7	3.4	1.7	13.5	2.8	11.3	17.7	34.9
Fan	13.5	2.8	1.7	13.2	2.0	11.0	17.5	34.1
Air conditioner	8.2	1.4	0.3	7.0	2.0	8.7	21.1	20.8
CD/DVD player	9.3	2.3	0.6	7.3	0.8	8.8	12.4	23.2
Computer	7.6	1.4	0.3	8.7	2.0	9.0	13.2	21.4
Internet access	7.6	0.8	0.3	7.1	1.7	7.9	11.3	18.4
Washing machine	11.0	3.1	1.4	10.7	2.3	10.4	17.5	31.0
<b>Property asset</b>	<b>Percentage (%)</b>							
Agricultural land lot	13.5	-	-	12.8	40.0	7.5	30.2	17.7
Shoplot	9.6	-	16.7	4.3	-	20.0	4.8	11.3
Rental house	21.2	25.0	33.3	19.1	20.0	32.5	27.0	24.2
Own house	94.2	91.7	100.0	81.2	100.0	82.5	93.7	91.9
<b>Vehicle ownership</b>	<b>Percentage (%)</b>							
Car	80.8	83.3	83.3	81.2	80.0	100.0	88.9	93.5
Motorcycle	63.5	75.0	83.3	75.0	90.0	90.0	73.0	83.9
Van/Lorry	17.3	8.3	16.7	16.7	30.0	20.0	7.9	17.7

Source: Household Survey (2014)



Vehicle ownership is a good indicator of the mobility/movement of households to certain places for any daily needs. Car as a mode of transportation shows the highest percentage of ownership. Majority of them owned a car in every area studied. However, the percentage of lorry and van ownership as a mode of transportation is low among them. In short, Table 3 shows several aspects of property ownership of the household heads in more details.

Based on these findings, it clearly shows that even the study area is currently located in the outskirts of the metropolitan region, but in terms of lifestyle most of them (through household survey) were living a modern lifestyle and character of the city through the ownership of home appliances as well as ownership of particular assets.

### **(iii) Deterioration of Physical Environment**

Spatial development such as constructions of commercial centre buildings, housing area, infrastructural facilities, and industrial area create significant changes of the physical landscape in line with the increase in population which leads to changes in spatial and environmental quality. Environmental conditions indirectly affect the human wellbeing within that surrounding area.

In general, the development of rural area will change the existing natural ecosystem to a different environment. Overall, majority of the household heads surveyed have a perception that environmental quality of the residential area has great influence on their health condition and wellbeing. Among the problems related to environmental quality are domestic water supply, noise pollution, deterioration of air quality, domestic water that are seen to have potential to affect the health and wellbeing of the residents, are among the elements that the respondents (household heads) were asked about.

In short, more than 70 percent of household heads agreed that deterioration of air quality contributes to health problems such as shortness of breath and pneumonia, caused by activities of industrial plants, combustion of fuel in motor vehicle engines, and open burning. Noise problem also has an impact on human psychological health condition. The majority of the household heads surveyed in the major settlement centres agreed that noise problem contributes to human psychological health condition.

Table 4: Perceptions of environmental quality towards health problems

Indicator/Perception	Neighbourhood centres															
	Ulu Bernam		Kalumpang		Kerling		Kuala Kubu Bharu		Rasa		Bukit Beruntung		Batang Kali		Serendah	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
<b>Air quality towards health</b>																
Agree	41	78.8	9	75.0	6	100.0	39	81.2	1	10.0	3	92.7	5	91.9	115	92.8
Disagree	11	21.1	3	25.0	-	-	9	18.8	-	-	3	7.5	5	8.1	9	7.2
<b>Total</b>	<b>52</b>	<b>100.0</b>	<b>12</b>	<b>100.0</b>	<b>6</b>	<b>100.0</b>	<b>48</b>	<b>100.0</b>	<b>1</b>	<b>10.0</b>	<b>4</b>	<b>100.0</b>	<b>6</b>	<b>100.0</b>	<b>124</b>	<b>100.0</b>
<b>Noise towards psychological disorder</b>																
Agree	34	65.4	7	58.3	4	66.7	34	70.8	7	70.0	3	84.4	4	77.5	89	71.8
Disagree	18	34.6	5	41.7	2	33.3	14	29.2	3	30.0	6	15.6	1	22.5	35	28.3
<b>Total</b>	<b>52</b>	<b>100.0</b>	<b>12</b>	<b>100.0</b>	<b>6</b>	<b>100.0</b>	<b>48</b>	<b>100.0</b>	<b>1</b>	<b>10.0</b>	<b>4</b>	<b>100.0</b>	<b>6</b>	<b>100.0</b>	<b>124</b>	<b>100.0</b>
<b>Noise towards the wellbeing</b>																
Agree	35	67.3	7	63.7	4	66.7	34	70.9	5	50.0	3	82.0	4	74.2	81	66.0
Disagree	17	32.6	4	36.3	2	33.3	14	29.2	5	50.0	1	18.0	1	25.8	42	34.1
<b>Total</b>	<b>52</b>	<b>100.0</b>	<b>12</b>	<b>100.0</b>	<b>6</b>	<b>100.0</b>	<b>48</b>	<b>100.0</b>	<b>1</b>	<b>10.0</b>	<b>4</b>	<b>100.0</b>	<b>6</b>	<b>100.0</b>	<b>123</b>	<b>100.0</b>

Source: Survey (2014)

**Conclusion**

The findings in this article are preliminary findings of a study that discussed on brief discovery of only three elements, namely, population, economic function, and social wellbeing. However, as the population increases, agricultural related function decreases, and the wellbeing of the residents is disrupted by criminal cases which should not be taken lightly. These findings are initial evidence that show spatial transformation process has an impact on the study area. The small cities in the study area that was once quiet are now beginning to get affected not only physically but also to the wellbeing of its inhabitants.

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### **References**

- Abdul Samad Hadi, Abdul Hadi Harman Shah, Ahmad FarizMohmed&ShaharudinIdrus.(2006). *Mencari kelestarian bandar kecil*.Bangi: Penerbit Universiti Kebangsaan Malaysia (In Malay).
- Azahan Awang, Jamaludin Md Jahi, Lukhman Z Mohamad &Kadaruddin Aiyub.(2009). The quality of life in Malaysia's intermediate city: Urban dwellers perspective. *European Journal of Social Sciences*, 9(1): 161-172
- Katiman Rostam. (2006). *Pembandaran dan perkembangan Wilayah Metropolitan Lanjutan Lembah Klang-Langat, Malaysia.E-Bangi*1(1): 1-27 (In Malay).
- Katiman Rostam. (2007). *Transformasi desa-bandar di pinggiran Wilayah Metropolitan: Beberapa bukti di sekitar Dengkil, Malaysia*.Kertas kerja Seminar PKPPM. Anjuran Universiti Sains Malaysia, Pulau Pinang 17-18 Januari (In Malay).
- Anuar Amir.(2006). *Impak limpahan pembandaran ke atas kampung pinggir bandar di wilayah metropolitan*.Tesis Ijazah Doktor Falsafah, Fakulti Alam Bina, Universiti Teknologi Malaysia Yang Tidak diterbitkan (In Malay).
- AzahanAwang (2006). *Kualiti hidup masyarakat bandar di kawasan Majlis Perbandaran Seremban, Negeri Sembilan*.Tesis Doktor Falsafah. Bangi: Universiti Kebangsaan Malaysia. Tidakditerbitkan.
- Hafazah Abdul Karim. (2012). *Urbanisasi dan kualiti hidup bandar*.In Hazlina Hamdan & Syed Mohd Hassan Syed Subhi (eds.), *Perancangan dan pembangunan bandar*. Shah Alam: UiTM, pp. 11-37 (In Malay).

Haryati Shafii.(2007). *Persepsi penduduk terhadap tempat tinggal dan kualiti hidup masyarakat bandar*.Bangi: Universiti Kebangsaan Malaysia.

JamaliahJaafar. (2004). Emerging trends of urbanisation in Malaysia. *Journal of the Department of Statistics, Malaysia*, 1: 43-54.

Lee, B., & Guest, A. (1983). Determination of neighbourhood satisfaction: A metropolitan-level analysis. *Sociological quarterly*, 24: 287-303.

Nurizan Yahaya.(1998). Kualiti perumahan dan kualiti hidup. *Jurnal Analisis*. 5(1&2): 133-149 (In Malay).

Samruhaizad Samian @ Samion & Jamaluddin Md Jahi (2012).Kualitihiduppendudukpinggirbandar.Prosiding Seminar Antarabangsa ke-5, 8-9 Oktober 2012, Pekanbaru, Riau, Indonesia (In Malay).

Wan Rozali Wan Hussin (2010).Kualiti hidup sosial dan proses perbandaran di Malaysia. dalam Yazid Saleh, Fauziah Che Leh & Mazdi Marzuki (eds.). *Isu-isu semasa alam sekitar manusia di Malaysia*.TanjongMalim: Penerbit Universiti Pendidikan Sultan Idris, pp. 19-40 (In Malay).

Wan Ibrahim Wan Ahmad. (2000). Gerontologi: Perkembangan disiplin dan masa depannya di Malaysia. In Rahimah Abd Aziz & Mohamed Yusoff Ismail (eds.). *Masyarakat budaya dan perubahan*.Bangi: Penerbit Universiti Kebangsaan Malaysia, pp. 221-237 (In Malay).