

# Sustainability, Quality of Life and Challenges in an Emerging City Region of George Town, Malaysia

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## Abstract

High urbanization in Asia has given rise to the necessity to revisit its planning strategies towards the notion of livability and sustainability. This has called upon a need to accommodate the living capacity and ability of cities to provide welfare to their populations. Cities become complex and contradictory spaces if problems with accessibility towards basic necessities, inefficient transportation systems, environmental degradation, urban poverty, social exclusion and collapsing community values are not tackled with scrutiny of the standards needed for the urban quality of life (QoL). This paper aims to describe the urbanisation processes that challenge the livability and sustainability of George Town, the world heritage site of Penang, Malaysia. Using questionnaires and in-depth interviews with respondents, data were collected to explore the quality of life indicators and to assess the extent of urban sustainability and the challenges faced by the local communities. With the notion of an emerging mega urban region, the success of George Town in planning and projecting a sustainable urban development model is a step towards eliminating contemporary urban challenges and to promoting its cultural heritage. In this way forward, the role of the local authorities is crucial to propel George Town towards a livable city status that is culturally preserved.

**Keywords:** challenges, city region, George Town, quality of life, sustainability

## 1. Introduction

Urban areas have now become the living places for almost half the world population. In this sense, mega urban regions have also emerged as new engines of global economic growth, which is characterized by the intense movement of global and local capital, thus producing new economic landscapes in many places in Asia (Ortega et al., 2015; Yoon, 2017; Ye & Bjomer, 2018). Particularly of all the regions in the world, Asia has increased its urbanization level by 7 percentage points in 2000-2010, as compared to only a 3.6 percentage point increase for Africa, and for the period 2010-2050, Asia is projected to increase its urbanization level by 20.4 percentage points, whereas the projection for Africa is only 18.5 percentage points (Wan & Kahn, 2014). However, the rate and scale of this growth, coupled with other issues such as climate change and resource depletion, pose serious problems in cities and require specific intervention. Cities are indeed habitat for human settlement and for that requires holistic planning and management, so that the quality of life (QoL) for the community can be upgraded and sustained. Therefore, the effort to attain sustainable development for a city needs scrutiny with an examination of the physical environment, as well as the economy and cultural elements that have long been formed by the urban communities. In relation to this, the urban environment has to be assessed through indicators that are set for measuring the quality of life.

Large urban networks are highly multifunctional in the use of its space and that affects their ecological and cultural values but they can become fragmented and eventually has the chance to lose their identities. Most of the new changes to the urban landscape are accepted and integrated through time, as part of the local landscape development. However, on the other hand is the traditional cultural landscape in need of efforts to conserve it from disappearing. This gives rise to the question of how policy makers plan and manage the emerging new landscapes of cities and how an assessment of the character or identity of a changing landscape can be determined and valued for the future, and potentially become traditional or heritage? It is within this notion in mind that this paper aims to discuss the challenges faced by island cities like George Town, Penang to compete for its economic prosperity while sustaining its QoL standard. Wang et al. (2016) noted that the human factor

plays an important role in affecting and charting the urban environment and its livability, and in that respect, the same environment then affects the QoL of the urbanites. The QoL in the city thus needs to be justified with in terms of the intense and robust development that certainly will have a high toll on the environment and the urban communities. This paper focuses on exploring the QoL in George Town, Penang by closely looking at the indicators and the urban problems that are currently being faced, and charting strategies towards achieving a sustainable development with a focus on maintaining the cultural heritage for the future. The mechanisms that have become important characteristic of the city, as well as the spatial processes that have appeared as an important element of the urbanization process are discussed and how the city is responding towards the issues of sustainability and QoL will be illustrated with some empirical findings.

## **2. Material Studied**

### *2.1 Sustainability and Competitiveness in an Emerging City Region*

The United Nations projection of six billion people residing in urban placed by the year 2050 forcefully suggests the importance of comprehending urbanization in discussions of sustainability. In recent years it has become very complex and challenging to manage cities that are growing especially at the speed and scale that is occurring in Asian countries. The situation becomes doubly challenging when cities begin to expand and encroach into their peripheries thus forming mega-cities or even larger mega urban regions. Although scholars have purported that the massive sizes of such urban regions are the ultimate spaces and places of production in the twenty first century where they serve as the ‘only economic unit that matters’ (Florida 2008: 38), and the unprecedented and irreversible urbanization process is accompanied by a whole range of urban issues and challenges. With the blurring of metropolitan boundaries and the complexity of the urban patterns, mega city regions in Asia create new scales of geography that will have implications for planning and governance (Ross, 2012; see also Yeung, 2011). Meanwhile, in monitoring the sustainable development of World Heritage cities, Guzman et. al (2018) proposed a database to link urban development factors and the management of cultural heritage in those cities. They pointed out to the importance of understanding such dynamics and monitoring the methodology that will constitute a good practice for development and conservation. Rogerson (1999) and Todd et. al (2015) have also highlighted that, besides the current capacity to engage with global capital, the important function of a city’s heritage has a significant impact on the spatially differentiated pattern of competitiveness. What that can be revealed, as Rogerson (1999) claimed, is a “rhetoric of the local embedded within the processes of global accumulation”, in what has been described as a “fragmented mosaic of uneven development in which competitive places try to secure a lucrative development niche”. In this respect the focus on the urban QoL will be such a crucial factor in determining the level of satisfaction among urban dwellers within the changing role of spatiality in the contemporary city and environment. This will in turn challenge the city in terms of sustainability and pose measures for planning policies to retain and develop a niche areas and the attraction of capital to the city. Furthermore, it has been argued that urbanization has become a major contributor to unsustainable development (see Elliot, 1994; Simmons, 1991; Zhang, 2015) due to the increasing use of resources, energy consumption and the production of wastes. Most urban development strategies are focused on urban based economic growth; thus, as Drakakis-Smith (1990, 1995, 1996, 1990) stressed, there is a need to address the sustainability of urbanization per se and how to manage it for the benefit of all. Crucially important is to know how the process of urbanization is linked to the process of development and sustainability. Urban sustainability is indeed an integral part of sustainability, which implies examining the process of urbanization within the context of dynamic and complex social, economic, political, and ecological processes that produce sustainable or unsustainable urban landscapes.

### *2.2 Quality of Life, Urban Livability and the Malaysian Case*

Over the years, the planning systems in the developing nations have changed slowly, and many approaches and systems reflecting planning ideas taken from the developed nations have been absorbed through the complex processes of colonialism and globalization (Watson, 2009; Goh 2014). This is particularly true for Malaysia generally, and George Town specifically. The island city of George Town has witnessed a long-standing relationship with colonial settlements and globalization effects, as can be seen from every angle of its current economic, social, heritage and environmental landscape that is present now. Looking at the national level, the QoL status gained attention in the Eight Malaysia Plan (2001- 2005), when the concept of QoL was added. Thus, development assessment is not only focused on physical and economic development, per se, but also on human development (Malaysia, 2001; Awang 2009). For the urban community’s QoL, the extent to which this has been a success can be seen judged from the urban development processes, and whether these have fulfilled the needs of the communities. QoL is also concerns good and comfortable living, with all the necessities attained relating to psychological and sociological needs (Raphael et al. 1996). A city is said to need to provide all aspects of the

basic necessities, including economic and social aspects, to increase the QoL. However, more problems are faced by cities nowadays, thus, a model of sustainable development must be introduced. The principal of this sustainable development is based on three foundations: economic, environmental and social. Amongst the concepts used for the sustainable development of cities are ‘sustainable cities’, ‘livable cities’, ‘safety cities’, ‘intelligent cities’ and ‘healthy cities’. For this paper, the concept of livable cities will be used.

At the local level, the Malaysian Quality of Life Index is used as a basic level indicator. As noted by Rustam (2008), a city must have fulfilled several criteria: political stability; economic balance and equal opportunity; a conducive business environment; affordable housing; efficient public transportation system; a clean environment; accessibility to health services; education; and safety. Thus, the life of urban communities is closely related to the environment, due to the fact that the city is more exposed to risks from the development effect and urbanization compared to the suburbs. Cities are also a center for human civilization that needs monitoring to sustain the QoL because the impact of development in cities changes with time (Mohd Yusof & Lokman 2002). Thus, according to the concept discussed by Raphael et al. (1996) above, to achieve comfortable living in the city, the component of QoL is presented based on the community’s perception towards their environment, which involves the physical environment, the economy, transportation, and the social environment. Therefore, several indicators are used and improvised to suit with the objectives of the present research. Table 1 shows the factors affecting community livability, and the associated QoL benefits that could be expected to accrue.

Table 1. Examples of community livability factors and their associated QoL benefits

	Livability Factors	QOL Benefits
Economic Development	Availability of jobs, services, and retail	Disposable income, recreation and leisure time
Housing	Affordability, location, diversity of housing types	Shelter, safety, and security
Environmental Quality	Air quality, aesthetics, noise, water quality, greenhouse gases, parks and open space	Physical and mental health, protection from certain natural hazards
Community Development	Community cohesion, historic and cultural resources, educational opportunities	Sense of belonging, sense of place, community resiliency, social capital, upward mobility
Transportation	Availability of multi-modal connected networks, mobility, safety, accessibility of jobs, housing, and services, streetscape attractiveness	Independence of movement, reasonable and reliable travel times, physical and mental health
Equity	Equitable distribution of amenities	Sense of social justice, exposure to diverse ideas

Source: VanZerr, M. & Seskin, S. (2011)

Recommendation Memo #2 Livability and QOL Indicators

The following Figure 1 shows the location of Penang in Malaysia. The urban agglomeration is mainly concentrated in the northeast of Penang island, as shown here; however outward urban expansion has gradually formed the George Town conurbation that stretches through to the east coast of the island.



Figure 1. Location of George Town in Penang, Malaysia

Source: PDC (2016)

### 2.3 Penang: An Overview of Urbanization in George Town

The city of George Town was founded 200 years ago. It had an estimated population of 520,000 in 2010 (Penang State Government, 2010) and the East Coast District itself recorded the highest population density compared to other districts. The rate of urbanization in Penang as compared to other states in Malaysia is shown in Table 2. Urban expansion and the dynamics of the urbanization process have been heightened up with the changes in the economic policies, industrialization and modernization. At present, the city of George Town is going through an extensive development in terms of economic, demographic, cultural, transportation network and environmental changes. Besides being an electrical and electronic manufacturing hub in this region, Penang has also been recognized for its rich heritage and on 7<sup>th</sup> of July 2008, George Town became a UNESCO World Heritage site (Invest Penang, 2010; Tan, 2010).

Table 2. Urbanization rate by state of Malaysia 1970 - 2010

<b>YEAR</b>	<b>1970</b>	<b>1995</b>	<b>2000</b>	<b>2005</b>	<b>2010</b>
<b>STATE</b>					
<b>Core Region</b>					
Penang	<b>51.0</b>	<b>77.0</b>	<b>79.7</b>	<b>79.8</b>	<b>80.0</b>
Selangor	9.5	80.8	87.7	88.4	89.1
Johor	26.3	54.4	64.8	66.5	67.7
<b>Transitional Region</b>					
Kedah	12.6	35.1	39.1	39.8	40.3
Negeri Sembilan	21.6	47.3	54.9	56.3	57.4
Melaka	25.1	49.5	67.5	70.6	73.4
Sarawak	15.5	41.8	48.1	49.5	50.6
<b>Remote Region</b>					
Perak	27.5	56.2	59.1	59.3	59.3
Kelantan	15.1	33.5	33.5	33.4	33.3
Perlis	-	29.6	34.0	35.1	35.9
Terengganu	27.0	46.6	49.4	49.8	50.3
Pahang	19.0	35.0	42.0	43.5	44.6
Sabah	16.9	*39.8	48.1	49.8	51.6
<b>Non-Industrial Region</b>					
Federal Territory of Kuala Lumpur	100.0	100.0	100.0	100.0	100.0
Federal Territory of Labuan	-	-	76.3	77.6	78.6

Source: Ninth Malaysia Plan (2006-2010)

### 3. Methods

This research considers urban QoL to be a subjective assessment of one's satisfaction with life. This is also approximates to the social indicators research that looks into how to improve measurements of the level of living by identifying components of welfare and by constructing respective indicators. It is parallel to viewing QoL assessment as resulting from the interaction of multiple causal dimensions. The objective of this research was to measure the local perceptions of QoL in George Town, which is one of the important tourist destinations and a manufacturing hub in Southeast Asia. The social indicators used include socio-economic aspects, education and training, safety, housing, environment and cultural heritage, and public transportation. The study draws upon both primary and secondary sources of data. The primary data were generated from field surveys and in-depth interviews carried out between August and October 2015 in George Town. Using questionnaires and in-depth interviews, a total of 40 respondents were surveyed to explore the QoL indicators and assess the extent of urban sustainability and the challenges faced by the local communities. Although the number of respondents for the questionnaire was quite small, in terms of the total number of population in the city area of George Town, the

data were supported and complemented by the collection of qualitative data through in-depth interviews with 10 communities. It is justified that with these interviews, the paucity of the questionnaire data would be overcome by the addition of qualitative details from the informants. Meanwhile, the secondary data were mostly derived from planning documents, reports and government publications, and documented materials from related government institutions. The primary data were collected by questionnaire surveys and informal interviews with the local respondents living in a selected location of the city. Information from the questionnaire surveys were processed using Statistical Packages for Social Scientist (SPSS), whereas information from in-depth interviews were recorded in the form of field notes, and analyzed qualitatively using interpretation and reflection techniques as well as content analysis. In the discussion of the research findings, some data were presented in the form of tables while information from the interviewees was written in textual form to allow the individuals to speak for themselves. The level of satisfaction amongst the respondents provides an early generalization of satisfaction level, allowing an assessment of the livable city criteria and sustainability for the future. Some data are presented in figures to simplify the discussion and findings. The aim of this research is thus to examine the QoL indicators in George Town and the extent to which urban problems have become critical from the local perspective. However, it should be noted that a better understanding of QoL calls for a more intense theoretical and methodological work rather than merely relying on the amount of social and environmental statistics.

#### 4. Results and Discussion

The fieldwork analysis revealed that 57% of the respondents lived in the city area of Penang. They were from various age groups, thus reflecting a variable perception in the findings. This is because the need and willingness to attain a better QoL differs by group and current situation. About 37.5% of the respondents were from the age group of 21-30 years old category and most of them were students and government officials who lived near the city of George Town. Meanwhile about 22.5% were in the age category of 41-50 and 51 years old and above categories, with the rest being respondents from the age of 31-40 years old. In total, all the respondents had a basic school education and the majority of them (about 42.5%) also have tertiary education at the university level. The education aspect is very significant and considered to be a necessity that places an important role in the communities. Accessibility to education is thus seen as an important element for providing opportunity to raise the living standard and income level. The respondent's perception towards quality of the environment where they lived was revealed by the level of agreement among them towards the urban QoL components: housing, facilities and services, safety, environment, neighborhood, public transportation, and cultural heritage (Table 3).

Table 3. QoL components surveyed for George Town

Component	Characteristic
Housing	-Comfortable to live
	-Meet the expectation and affordable
	-Close to city center
Facilities and Services	-Health Services
	-School, mosque/temple/church, entertainment
	-Recreation area and green space
	-Pedestrian Walk
Safety	-Secured social safety, property and family
Environment	-Frequency of Flooding
	-Level of air pollution
	-Plastic bag usage
Neighborhood	-Good communication and support
Public Transportation	-Traffic network and efficient public transportation
	-Preference for public transportation over own transport
Cultural Heritage	-Old buildings, traditional villages sustained and conserved.

Source: Author's Field Survey (QoL components adapted from Burc et al. 2001)

In terms of occupation, 35% of the respondents were professionals and technical group workers, 30% were from other categories (student, pensioner, and house wife), 15% were temporary workers and 7.5% were in management, administration and sales, and 5% were production workers. Most of the Malays, which is about 40% lived in the city and in mid low cost flat houses with three rooms and there are also some who lived in the urban villages of George Town such as in *Kampung Dodol*. For those living near the city, the mid low cost flat houses are the most available and affordable choice that are very convenient for commuting to work. Therefore, it is not surprising to see so many flats and condominiums in George Town built because of rising land prices and limited space especially in places near to George Town city center. The development of these flat houses is advantageous in solving the land scarcity problem near the urban area although in some cases it confronts with a dilemma whether to retain or demolish the urban villages. Nevertheless, the surrounding environment is urged to be accommodating towards the demands of the urban dwellers, and this is due to the fact that satisfaction and comfort are able to raise the living standards of the community. The infrastructure and basic amenities must be in proper condition, and be constantly monitored by the local authorities in order to sustain the usage of facilities.

The findings from the survey are shown in Table 4. A total of seven attributes were identified for the QoL components. These attributes were identified as important criteria, and the respondents were requested to choose their attributes according to their respective preferences.

Table 4. Respondent perception towards QoL in George Town

Perception towards location	N	Perception Difference (%)				
		Strongly Disagree	Disagree	Agree	Strongly Agree	Total
Area is comfortable to live	40	0	5.0	<b>65.0</b>	7.5	100
Good Health Services Facilities	40	0	2.5	<b>72.5</b>	10.0	100
Secured social property & family safety	40	0	0	<b>55.0</b>	2.5	100
Heightened Frequency of Flood	40	10.0	45.0	7.5	0	100
Intense air pollution	40	5.0	0	<b>65.0</b>	10.0	100
'Greener Cleaner Cities' Campaign	40	0	0	<b>70.0</b>	25.0	100
Affordable & satisfying housing	40	0	17.5	<b>60.0</b>	0	100
<b>Adequate basic amenities</b>	40	0	5.0	<b>75.0</b>	10.0	100
Adequate products & services	40	2.5	12.5	<b>65.0</b>	0	100
Great neighbor-hood	40	2.5	10.0	<b>65.0</b>	0	100
Efficient public transport & network	40	0	10.0	<b>57.5</b>	0	100
Prefer using own transport to public transport	40	5.0	5.0	<b>62.5</b>	20.0	100
<b>Distance to city center is not far</b>	40	0	0	<b>82.5</b>	12.5	100
Good sewage	40	2.5	2.5	<b>70.0</b>	5.0	100
<b>Adequate recreational facilities/ green space</b>	40	0	12.5	27.5	5.0	100
Adequate pedestrian walk	40	2.5	20.0	20.0	2.5	100
Preserved heritage & cultural elements	40	2.5	32.5	7.5	5.0	100

Source: Author's Field Survey

The Table 4 above shows the 'distance to city center is not far' to be the most significant component and achieving a positive perception of agreement with a rate of 82.5%. Meanwhile the second attribute, 'adequate basic amenities' had 75% agreement among the respondents. This is due to the fact that most respondents lived close to the city area within a distance of only 4-15km only. There are many housing areas close to the city and the existing road network facilitates the commuting process and encourages the usage of public transportation. Most respondents agreed that the basic amenities in the city were adequate, including schools, hospitals/clinics, religious buildings, shopping complexes and entertainment centers. About 60% of the respondents agree that the housing areas where they lived now were comfortable. This is because of the proximity to the city center, which is not far, where the satisfaction level of the facilities provided has been increased. As a center for multiple

activities and diversity, George Town is well equipped with facilities to cater for the dynamic economy and the well being of the communities. In addition, infrastructure spending on cities appropriates the accounts for the greatest share in most Asian cities (Giok Ling Ooi, 2009). The provision of basic needs such as houses, a clean drinking water supply, modern sanitation, sewerage treatment, and public transportation are meant and developed not merely for the local people but also to serve international businesses and investors including the facilities from modern airports to hotels and telecommunication services. This is in line with the city's function and role as a manufacturing hub, top tourist destination and a world heritage site. Most respondents agreed that in George Town, various activities are easily available, and this provided the opportunities for raising the quality of living among the urban communities.

The research findings also revealed that people living in the city area strongly agreed with the importance of clean and healthy environment as it occurs in George Town. A livable city is a city that is aspired by its community due to the element of 'live, work and play' within it (Malaysia Quality of Life Index, 2009). Nevertheless, the attribute 'adequate recreational facilities/green space' in the city such as recreational areas and pedestrian walks did not achieve the anticipated perception score because almost half of the respondents (55%) were not sure that those types of facilities were actually provided and could be used. In fact, the city is facing a problem in terms of land scarcity especially of green space. In most cases, the open space such as pedestrian walks that existed have been taken away by street hawkers and manipulated by some premises for business purpose. As noted by one of the respondent (Male respondent A, 45years old) who is also a government official:

'We once had an open space along Free School Road but it is a hawker centre now. Some spaces are even taken over for car park...if you see at Gurney Drive, the hawker centre near the roundabout was originally a children's play-ground' (male respondent A, aged 45)

In relation to this, strategies are needed in helping the poor hawkers to have proper hawker complexes, and this can be done by the local councils, with the help of the federal and the state government. The Penang hawkers are one of the important icons of Penang as a tourist destination since street food consumption has proliferated throughout the years. At the same time more efforts are being taken upon to develop more green spaces and green initiatives from the state government. There are various green initiatives in the works but how far they will be successful and effective is another question. The state government for instance has launched the 'Cleaner Greener Penang Initiative' which is part of the vision of turning Penang into an 'international city' that is investor friendly and a good choice for tourists (Goh Ban Lee, 30 December, 2010). However, the initiative had a lot of criticism for being merely a misunderstood political slogan despite its popularity. It has been realized that for George Town to be on the livable city indexes, having green open spaces and parks is crucially essential. The local authority's efforts to make Penang as 'Cleaner Greener City' is a indeed a crucial measure into forming an environmentally friendly city and a livable city for the future. However, it should be noted that these slogans are much harder to materialize in reality and a more concerted efforts that are practical and effective needs to be critically planned and put forward by the stakeholders in the city. With industries and manufacturing still as the major backbone for the region and urbanization progressing so rapidly with a concentration of urban population and other further developments coming in, it seems a difficult measure to reach for a cleaner and greener vision. Thus, many areas still needs further improvement, and plans are still lagging especially with respect to issues of urban air pollution and environmental degradation, as well as the provision of good quality urban services and amenities such as efficient public transportation and affordable housing. As noted by one of the respondents (Female, aged 48):

I agree with the restriction on using less plastic bags in many shopping complexes and hypermarkets that can actually help a lot to save the environment. But I think some serious measures need also to be taken to curb the problems arising from heavy emissions of old buses (especially factory buses), trucks and other vehicles. I think we need to have more choices for an improved public transportation and strict laws in place (Female, aged 48)

As a heritage city, George Town is also striving to conserve its old buildings as tourist product attractions. However, there are some cultural heritage sites such as the traditional villages in the middle of the city being affected due to development pressure. The findings from an interview with several respondents who live in some of the villages (*kampung*) revealed that they were disappointed with an arrangement for them to relocate to a different part of the city. In regard to this, one of the respondents (Male respondent, age 65 years old) commented:

'I am sad thinking of why I should leave my own village, the place where I was born and raised. I am so attached to this place and the people here, I can never erase the memory of my old house and the

backyard, and the people whom I know and most of them are my own relatives....but everything that is used to be in this village is gone now.’ (Author’s Field Survey)

Although development has not been opposed, the cultural heritage and the traditional architecture such as the *kampong* houses need to be sustained as a legacy of the past Malay history and community origins. Besides the traditional *kampong*, George Town is also home to the largest numbers of pre-war buildings in Southeast Asia. Many efforts have been taken for restoration of the buildings, including the nineteenth century Straits Chinese building that has been restored, also the Cheong Fatt Tze Mansion, and the Xi Zhou Dynasty-style house, also known as the Blue Mansion. Commenting on the conservation efforts, one of the non-governmental organizations (NGOs) for Penang cultural issues, development and planning observed that, ‘Conservation is the management of change...if you know that change is coming, put parameters in place to make it beneficial rather than allowing wholesale gentrification’ (cited fr Dawn Delvecchio, Discovery Magazine, October, 2014).

Table 5 below shows the importance of factors chosen to determine the quality of life among the urban communities. The broad areas that provide an integrative framework to urban sustainability, including the economic, political, social and environmental consideration have been addressed in the analysis here. The demographic element is not discussed as it has been explained in the earlier paragraphs.

Table 5. Criteria preference to determine the QoL in the urban community

CRITERIA	PERCENTAGE OF CHOICE (ACCORDING TO NUMBER OF RESPONDENT)							
	P1	P2	P3	P4	P5	P6	P7	TOTAL
Political Stability	10	0	15	20	25	2.5	27.5	100
Balance and equal economic opportunity	5	17.5	20	17.5	22.5	15	2.5	100
Effectiveness of public transportation system	0	2.5	7.5	2.5	15	35	37.5	100
Clean and healthy environment	5	30	25	22.5	7.5	5	5	100
Quality Housing for all	30	25	12.5	20	2.5	10	0	100
Accessibility to basic amenities	50	20	20	2.5	7.5	0	0	100
Neighborhood spirit and supportive community	0	5	0	15	20	32.5	27.5	100

Source: Author’s Field Survey

Note: P<sub>1</sub> = Most Priority; P<sub>2</sub> = Second Priority; P<sub>3</sub> = Third Priority; P<sub>4</sub> = Fourth Priority; P<sub>5</sub> = Fifth Priority; P<sub>6</sub> = Sixth Priority; P<sub>7</sub> = Seventh Priority

The Table 5 above is based on the criteria affecting the QoL of the urban communities. It is revealed that the factor that most determines the QoL is ‘accessibility to basic amenities’ which was the most important for most respondents whereby 50% chose this as an aspect of priority aspect. Basic amenities is the first philosophy that needs to be fulfilled, as defined by WHO and highlighted by the City Welfare Project, and therefore, every individual should have their needs met in terms of the aspect of food, clean water, shelter, income, safety and job. When these focus on basic amenities are not made available, problems are created such as social exclusion in the community as can be seen in many city areas. This is also similar to the concept of the ‘marginalized community’ whereby priority is given to one group in the community living in the city, while some others are isolated in the development.

Apart from that, 30% of the respondents identified the component of ‘quality housing for all’ as important. This aspect can be viewed from the house size relative to the number of household occupants in the house, the price that afford ownership and every person have right to own a comfortable house. With programs such as low cost housing including the Community Housing Project (PPR) and housing mortgage scheme provided by local government, the problems of homelessness and urban poverty can be controlled and gradually eradicated. The research findings also revealed that people living in the city area stressed the importance of clean and healthy environment. A livable city is a city that is aspired by its community due to the element of ‘live, work and play’ within it (Malaysia Quality of Life Index, 2009). In addition, the respondents (47.5%) were also concerned about the high crime rates that risk the safety of the urban dwellers and thus decreasing the QoL in the city. It is without doubt that safety in the city is an important challenge in achieving the harmony in urban communities because crime activities make a city as a high-risk area to live. As a city that is thriving with rapid urbanization,



George Town is juggling to solve problems such as environmental pollution, land scarcity and to some extent a concerning level of crime rates, which is also partly related to the influx of migrant workers. This crime problem becomes very complicated with the increase of drug addicts, lack of knowledge about crime rates among the communities, added with other urban poverty problems. In relation to this, the respondents have suggested measures to be taken into consideration as set out in Table 6.

Table 6. Measures to solve the problems in the city

Factors chosen	N	Perception (%)
a) Community & local authorities involvement	40	7.5
b) To increase accessibility to basic amenities	40	10.0
c) Quality housing for all	40	12.5
d) Law Enforcement	40	32.5
e) Efficient public transportation system	40	17.5
f) Others	40	20.0

Source: Author's Field Survey

Based on the concern about high crime rates as mentioned above, 32.5% of the respondents suggested that there is a need to strictly enforce the law by the local authority. As pointed out by one of the respondents (Male respondent, aged 55):

'I have been living here for so long and what I can see is that crime is not such a serious issue...but at the same time we need to get more critical with people coming in from various countries. Nowadays you can see immigrants from Indonesia, Africa, Bangladesh, Nepal, Myanmar and so on everywhere and the number of population is getting bigger and more concentrated in the city area like George Town. I think more enforcement is needed especially in terms of reducing and controlling the number of crimes happening. I am not blaming the non-citizens but it is just a matter of precaution and awareness that should be within us especially the government to provide a safe place for people to live.' (Author's field survey).

Although the increase in population in the city is a by product of the process of urbanization, this will also create problems in the city in terms of accommodating the needs of the urban community in terms of preparing better infrastructure, public facilities and so on. This issue can also affect people who live in part of the city that is environmentally unhealthy, which potentially invites more crime activities. Increasing crime and social problems will therefore affect urban sustainability and livability. Although it has been reported by the state police that crime rates in Penang has dropped by 26% in the first six months of 2015 (The Star, July 28, 2015), measures are required from the state government to further intensify efforts in order to safeguard the communities from crime attacks and thus ensuring the welfare and safety of the urban communities to sustaining the city's livable status.

## 5. Conclusion

This research paper illustrated a unique contribution to the development of urban sustainability assessment and QoL frameworks by highlighting the need to consider locally relevant sustainability dimensions and constituent factors. The key contributions include the identification of context-relevant urban indicators, ranking their importance based on local priorities. In the robust urbanization process that leads to the emergence of city regions, various changes occur covering the economy, demography, political, cultural, technological, social and environmental factors, where with all these changes are being important indicators for intense urbanization. Intense urbanization not only show increase in the number of the population, creating dynamic cities, but also in the creation of urban problems that affects the harmony and welfare of the urban community when appropriate planning is not taking place. In developing country like Malaysia and for a dynamic city like George Town, the pace of industrialization and urban growth has put a toll onto the environmental welfare and its social wellbeing. Thus, creative solutions should be put in place and actions should be taken to address these issues and the problem. In other words, urban development policy framework will have to link the efforts towards more sustainable development in a variety of sectors including housing, energy, waste disposal, economic, and cultural heritage. Changes in measures taken should also facilitate and promote a change of mentality among urban dwellers and key stakeholders. The sustainable development agenda that is prominent now is able to construct a development that is justifiable for the city of George Town to make it a better place to live in the future, provided

that measures and strategies are taken wisely and proactively in a holistic way. With efficient urban governance at the local level to manage, plan and strategize measures for urban development, long term urban sustainability and livability status is possible to achieve long term. In the case of George Town, this should be a great priority for the state and local and local government especially with the heightened role and unique position given to George Town as a world heritage site.

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