

Spatial Experiences and Housing Satisfaction of Living in Old Public Housing Projects: Insights from Georgetown, Malaysia

Wan Nur Rukiah Mohd Arshad & Ku Azhar Ku Hassan

School of Housing, Building and Planning, University Science Malaysia,
Penang, Malaysia

Wannurrukaiah@gmail.com; arshad2098@usm.my

| Received | Accepted | Published |
|------------|------------|------------|
| 02.10.2024 | 18.02.2025 | 28.02.2025 |

Abstract

The Penang government provides housing for the lower income group from two government agencies and the private sector. The first public housing in Malaysia was in Kuala Lumpur and Penang in the early 1970s where people migrated to the city and many people built their own houses or became squatters. The quality of housing that has been there for 45 years is different; thus there is a dire need for them to be upgraded. This paper examines the experiences of the people living in these old flats built in the 1970s.

This research uses a case study approach. It employs a literature review, a field survey, and observations, for data collection. The primary data comes from the previous studies.

The findings show the level of satisfaction among the people living in Range Riffle flats using two variables: satisfaction of housing and quality of life. Due to various ethnic groups living in one housing area, many people view that in order to be satisfied with housing, they must cooperate and live together. However, the state and the Federal governments have to improve the standards and guidelines, especially within the low-income groups in urban areas to ensure that people can afford to buy or rent houses suitable with the size of the families. Moreover, they should also provide better facilities to them to ensure community well-being and harmony. Findings also show that public housing enable people to live in comforts, satisfied with the environmental social, cultural, and economic aspects. Indeed, they have a good quality of life in the public housing in Malaysia.

Keywords:

Introduction

Public housing is a common issue in every community and it is the case also in Malaysia. Majority of the people there live in the city; especially in Georgetown. The government has come up with a new plan for the low-income group and the middle income group so that they can afford to purchase a house according to their level of income. Thus, they will not be a burden for the people living in the city.

According to the Economic Report by the Ministry of Finance 2010/2011, population of the city has increased. Similarly, construction activities have also increased. In fact, the construction sector is expected to supply 4.9% of the total Gross Domestic Product (GDP) in 2025.

According to Hong (2010), Pulau Pinang, or popularly known as Penang is one of the states in Northern Peninsular Malaysia which has been rapidly developing in terms of urbanization and industrialization. Since 1900, Penang has prospered economically especially in the Island. It has seen many people migrating from the nearby states such as Perlis, Kedah and Perak to work and build settlements in Penang. The increasing population in Penang has contributed to the nation's economy between 1971 to 1980. Therefore, the government has concentrated on providing housing for the lower income groups, settlers and the public servants.

During the years from 1986 to 1991, Penang has experienced a net migration of 1 800, increasing to 13,600 for the period of 1995-2000 (Department of Statistics, 2000). In 2001-2002, the net migration was 8,400 declining further to 4,300 in 2002-2003. Since 1990, Penang net migration has always been positive, indicating that Penang has attracted migrants from the other states in Malaysia. All the developments in Penang have been managed by MBPP and the Penang Heritage Trust.

Since the integration of the erstwhile City Council of Georgetown and the Rural District Council to form the Board of Management of the Local Government of Penang Island in 1974, the Department has undergone many changes in terms of the organization. Figure 1 shows the location of the Penang Island in western Peninsular Malaysia. It's state capital, Georgetown, is the largest city in Penang with a population of 207,743 people.



Fig. 1: Location of the Penang Island in Peninsular Malaysia.

Sources: <http://www.malaysia-maps.com/>

This is in line with the National Housing Policy, which aims to provide accessible, adequate, affordable and quality housing for all the Malaysians, particularly the low-income group. It provides directions for housing development in the country where they should emphasize more on human settlements of better quality, and the national integration and unity. (Seventh Malaysia Plan and Eighth Malaysia Plan). During the Ninth Malaysia Plan (2006-2010), efforts have been made to ensure that Malaysians of all income levels should have access to adequate, quality and affordable houses, particularly the low-income group (MacDonald, 2011).

The rapid urbanization process in the developing countries coupled with high population growth rates has pressured the city development, especially the housing problems. Satisfaction of the housing area is one of the important components that influence quality of life (Stewart, 1985; Nurizan, 1987; Lawrence, 1995). The increasing number in urban population is related to economic, social and quality of life in urban areas, notably in the city

like Kuala Lumpur, Penang, Ipoh and Johor Bahru. Thus, people migrate from rural areas to the city; mostly from the low-income group. One of the basic needs of a person is a house to stay with his/her family and to have a good social life. In this context, the aim of this research is to explore the multi-faceted housing issues from the points of view of the experiences of the people.

Its objective are as follows.

1. To identify the quality of life of the public housing occupants in Penang.
2. To ascertain if the quality of housing affects the quality of life of the occupants living in public housing in Penang.

Background: Public Housing in Penang

Public housing schemes in Penang are administered by the City Council and the State Government. The City Council administers about 1,000 units and the State Government, 5,784 units. In so far as houses are concerned, they have been sold on hire-purchase terms and both the City Council and the State Government are responsible for the collection of monthly installments. In Penang, the history of public housing has been influenced by the political complexity of the three government bodies (City Council, State Government and the Federal Government) which were under the control of different political parties at different times.

The largest public housing scheme in Penang, namely the Rifle Range Flats, was undertaken between 1986 and 1970 as a result of a request by the State Government to the Federal Government in 1965 (Colin, 1979). All the public housing in Georgetown is now undertaken by Penang State Government. Penang City Council (now MBPP) is controlling and managing the collection of rents and providing the services.

According to data supplied by the Penang State Housing Department, there are at least four projects in Penang with a total of 2,374 units. As for at least two of the projects, the land has been provided by the two local authorities. Since 1957, Penang state government had built 14, 583 housing units (Table 1). Almost half of these housing units have been located in the Northeast District of Penang Island where Georgetown, the state capital, is located (Housing the Nation, 2013).

Table 2 shows the number of public housing units in Penang by district. However, according to the public housing records in the State Housing Department, Penang state government under PR has not built any public housing since it came to power in March 2008. Lim (2013) says “this dispels baseless attacks by certain irresponsible parties that the state government does not build a single low-cost house”. Undeniably, the state records must be updated to be accurate.

Table 1: Number of public housing units in Penang by district
Source: Penang State Housing Department

| | |
|----------------------------------|---------------|
| Penang Island Northeast District | 7,904 |
| Penang Island Southwest District | 569 |
| Seberang Perai North | 3,917 |
| Seberang Perai Central | 1,445 |
| Seberang Perai South | 748 |
| Total | 14,583 |

This demonstrates that there is a need for the state government to be engaged in the provision of houses to its people. In terms of the low-income groups, the approach to be taken is low-cost affordable and flexible support systems s advocated by Hamdi (1992), and Habraken (1982). Nevertheless, there does not seem to exist a fruitful and productive approach to making houses that can be turned into homes by people themselves.

Table 2: Number of public housing units in Penang by district
Source: Penang State Housing Department

| Year | No. of houses | % |
|--------------|---------------|------------|
| 1957–1969 | 4,555 | 31.2 |
| 1970–1990 | 6,100 | 41.9 |
| 1991–2007 | 3,920 | 26.9 |
| Total | 14,575 | 100 |

Review of Literature

According to Aliran (1981), the Government of Malaysia is well informed about the comprehension of housing policies. However, the guidelines in the government documents mention that the main objective is to make sure that low-income people would be able to acquire adequate housing facilities and afford to buy low cost houses at prices below RM25, 000. The function of housing sector is to fulfil the needs of the people. In order to ensure that the people of Malaysia can afford housing facilities, the federal government and the state government need to increase the construction of suitable and affordable houses to buy or for rent.

Housing programs continue to be implemented based on the concepts of human settlements whereby housing estates are provided with communal and recreational facilities. The implementation of other social services programs, like services in the local authorities, fire and rescue services, library services, information and broadcasting, sports and culture as well as family and community development contribute towards improving the general welfare of the people and creating a well informed and caring society (Ezeanya, 2004.).

Housing Projects, in the context of Malaysia, do not just take into account the building of housing units but also incorporate the provision of various prescribed facilities and amenities, and the safeguarding of the environment Salleh, (1989). Public housing was not originally built to house the ‘poorest of the poor,’ but was intended for select segments of the working class (United States, 1937; Bauman, 1987; Atlas and Dreier, 1992; Marcuse, 1995). According to Zakiyah, (2005) after independence (1957), there has been a shift in the concept of housing for the senior government servants and the government had started to pay more attention to the poor by providing them with public houses.

Nevertheless, Mukhija (2004) points out that public housing programs have often failed to provide quality, affordable and adequate housing units for the target low-income populations in most developing countries. On the contrary, the Malaysian government embarked on public housing program through its five years ‘Malaysia Plans’ and the emphasis was on low cost housing. According to Ghani & Lee (1997), there are four categories in the implementation of public sector housing.

- Public low cost housing program consisting public low cost housing, site and services schemes and the housing loan schemes.
- Housing in Land Regional Development Authority areas.
- Government and institutional quarters.
- State economic development corporation.

The 2010 population and housing census of Malaysia shows that there are 385,658 households and 468,278 housing units in Penang, an excess of 82,620 housing units. The average annual growth rate of housing units in Malaysia for the period of 2000-2010 was 3.2 per cent.

The rate was lower compared to 4.1 per cent during 1991-2000 (Department of Statistics Malaysia, 2010). In 1991-2000 Penang had produced many housing units which is second in the ranking after Selangor.

Quality of Life

The main problem for people who are living in a city is about quality of life. Therefore, it is important to identify the major components that form quality housing for people living in public housing. Azahan (2007) proposes two components to analyze the quality of life status in a city. However, they are insufficient as they do not reflect the real issues of the urban dwellers who live in the environment of the city and use the infrastructures. The national policy on environment has the objective to ensure that the country's prosperity is sustainable and is translated into improved quality of life. Indeed, the government accords equal prominence to the well-being of the 'individuals' and 'societies' in pursuing economic growth.

The concept of "quality of life" represents more than the private "living standards" and refers to all the elements of the conditions in which people live; that is, all their needs and requirements (Dasimah, 2009). However, Giulietta and Paola (1999) offer different perspectives on the concept of "quality of life" that can be a useful tool in studying and evaluating the degree of well-being and equity of living in specific circumstances. As for the people who are living in a city, talking to people can help us to understand more about the quality of life in the city as the answers given are normally honest, sincere, open and genuine (Azahan et al. 2006; Azahan et al. 2008).

Research on the quality of life in Malaysia has shown that residential neighbourhood satisfaction is an important indicator of housing quality and condition which affects individuals' quality of life. Abdul Ghani (2008) points out that it determines the way they respond to their residential neighbourhoods and the environments. Lee and Guest (1983) say that quality of life indicates that there are many factors in a neighbourhood that contributes to the quality of life of the residents through neighborhood satisfaction. These factors are environment, safety, public facilities and housing satisfaction.

Research Methodology

This research uses both qualitative and quantitative methods in the case study of Riffle Range flats. The first step of data collection involved the observation of participants in the study areas. Observations were carried out in the selected areas for a prolonged period of time: three months. This method also collected data from personal interviews, meetings and informally interviewing a cross-section of representatives of the residence in the study area. These interviews provided useful information with respect to past experiences and future acts as well as policy directions for public housing to rehousing for more than 30 years.

Observations were conducted at different places and times of the day to observe the environment, situation, activities, and behavior of the neighbors as well as the level of interaction of the residents with the public. A questionnaire was administered.

1. The first part of the questionnaire is part A with 9 questions about the respondents' socio-economic and personal profile, which includes the background the household public housing such as gender, age, religion, ethnicity, marital status, household income, education level, household size and transportation.
2. Part B is divided to 5 questions on satisfaction of housing. The variables are the type of houses design, physical design of the houses, the condition of the surrounding environment, public amenities and facilities, comfort of the design of houses and design of community facilities. Examples of public amenities are schools existing on site that are far from the houses. Therefore, a safe path is needed for children. There is also a need for transport facilities.
3. Part C determines quality of life in detail regarding matters related to the tenants facing problems, health status, safety, security and social activities. This study is supported by the research by Hafazah (2012) who found that the respondents like this view problems that exist in their housing area as trivial and they feel that the problems will exist no matter where they go especially regarding neighbors' attitudes, public services, facilities and others. The housing satisfaction and quality of life is a method of analysis which were analyzed using descriptive statistics variables.

Mixed-method approaches have been used to enrich and populate the data, to find a way to triangulate the findings and to conduct a pilot study in order to inform a large-scale quantitatively orientated project (Todd et al., 2004). Five critical components were included in the case study research design. According to Yin (2003), the components comprised of the following:

1. Research question(s);
2. The research proposition(s);
3. The unit(s) of analysis,
4. The logic of linking data to the proposition(s) and;
5. The criteria for interpreting the findings

The Case Study: Rifle Range Flats

The largest public low-cost housing scheme in Penang is the Rifle Range Flats with a total of 3,669 units in nine blocks of flats, each one of them having 17 storeys. There are 3,081 two-room units and 588 one-room units. A two-room unit consists of a hall, a bedroom, a kitchen and a bathroom cum-toilet. Besides the residential units, there are 60 large shops and 12 small shops on the ground of each block. The first blocks were occupied in early 1969 and the scheme was completed by the beginning of 1971 (Figure 2). The layout plan of Rifle Range flats shows the surrounding area in the study area. The total number of flat units, including shops, is 3,735 with a population of 25,024 people in 20 acres. Internal accommodation and its layout are similar to the flats built in early 1970 in Penang and Kuala Lumpur.

The layout plan for one unit house has 1 or 2 rooms with no living room and dining area, the planning and design of the house is for transferring the squatter people with low income into this public housing. People have to walk to access daily facilities. There are sufficient such facilities to support their needs, and places and spaces where a variety of activities can take place.

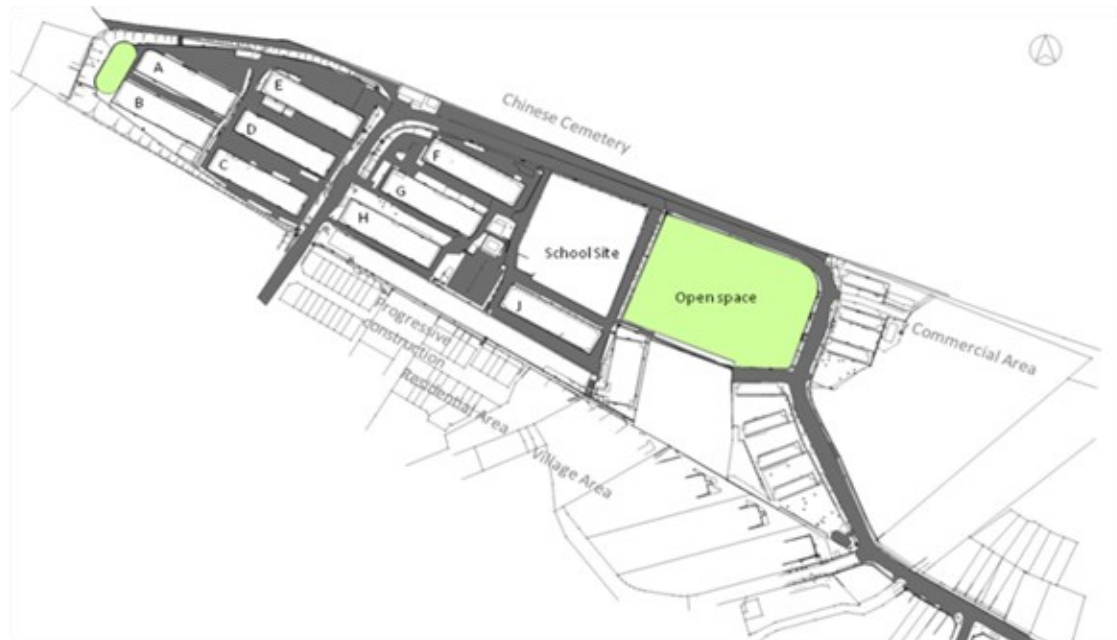


Fig 2: Layout Plan of the Rifle Range Flats, Penang, 2011

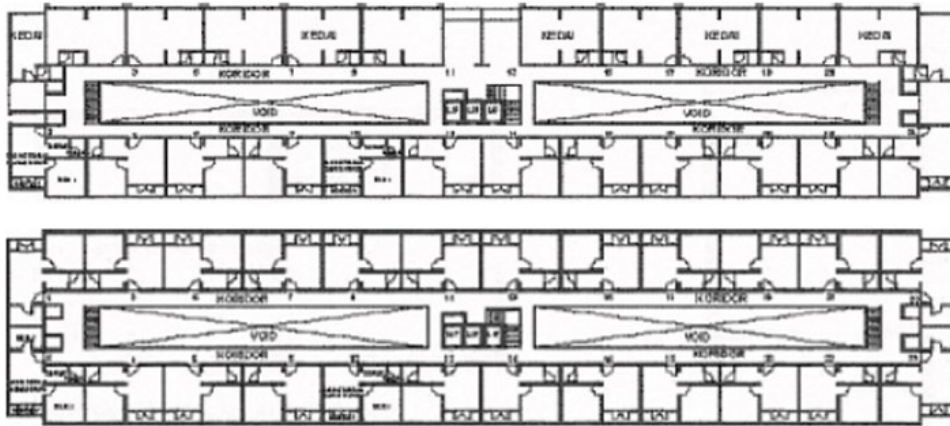


Fig 3: Floor Plan of Rifle Range Flats, Penang
Source: Leong,1979

Findings

Data in this paper came from primary sources such as personal interviews and surveys conducted with the residents at random locations such as open spaces, lift lobbies and the market. The targeted group, which is the low income groups, appeared to be the majority living in the Rifle Range flats. They have encouraged the authority to provide good quality open spaces for their children to play. The level of safety and maintenance has been found near to the ground in both aspects. Table 3 shows that recreation and shops are the aspects that the residents are not satisfied with in Penang. As for health and education, there are no issues because the area is near a school and a clinic; thus, the people can walk to access the facilities. (Morshidi et al., 1999)

It was observed that, only a few services are provided such as water tank, bus stop, cemetery house, generator, garbage disposal and etc. A few illegal services also have been provided among the community such as a convenient store and car parking.

The questionnaire survey revealed that in the estate of Rifle Range Flats, most people are living with a lower quality of life. Their health and hygiene are at a very poor level, with people living upstairs throwing rubbish from their balconies and air-wells (Table 4). The level of neighbourhood interaction is moderate, since most of the residents know well about each other. Rifle Range flats is led by a committee which helps the residents who have problems. In fact, the case study of Rifle Range Flats: the first public housing in Penang built around 1970, is for the people living in this public housing for more than 30 years. They express their satisfaction in living in public housing with less facilities, less spatial privacy, less security and less hygiene. The findings show that the quality of life for Rifle Range Flats is not satisfactory.

Table 3: Satisfaction of owner/renters with community facilities and services
Source: Morshidi et.al, 1999

| Region | Provision of facilities/Services | | | | | | | | | | | | | |
|---------------|----------------------------------|------|--------|------|-------|------|------------------|------|-------|------|--------|------|-------------|------|
| | Recreation | | Health | | | | Place of worship | | Shops | | School | | Com. Centre | |
| | Freq. | (%) | Freq. | (%) | Freq. | (%) | Freq. | (%) | Freq. | (%) | Freq. | (%) | Freq. | (%) |
| Penang | | | | | | | | | | | | | | |
| Satisfied | 105 | 42.2 | 119 | 52.0 | 244 | 84.8 | 161 | 67.1 | 25.4 | 86.7 | 222 | 83.8 | 178 | 61.8 |
| Not satisfied | 140 | 56.5 | 94 | 41.0 | 43 | 14.9 | 77 | 32.1 | 38 | 13.0 | 41 | 15.5 | 103 | 35.8 |
| Poor | 4 | 1.3 | 16 | 7.0 | 1 | 0.3 | 2 | 0.8 | 1 | 0.3 | 2 | 0.8 | 7 | 2.4 |
| Missing | 51 | - | 71 | - | - | - | - | - | 9 | - | 35 | - | 12 | - |
| Total | 300 | 100 | 300 | 100 | 300 | 100 | 300 | 100 | 300 | 100 | 300 | 100 | 300 | 100 |

Researchers found that generally, the centers surveyed are adequately provided with schools, shops, community facilities and places of worship. More importantly, these facilities are highly rated at this state level results (Table 3). In comparison with the table 3 & 4, education facilities and infrastructure is important for low income group to be comfortable with all the amenities provided by the government. In fact, hygiene depends on the behavior of people living in the public housing; they need to cooperate to ensure the cleanliness of the place they are living in. The fact that they are living in small houses with narrow corridors and poor lighting is certainly not ideal.

The problems these multi-racial and multi-religious people living in one building face, include having poor safety and security in their lives. The situation is controlled by setting up a special committee to increase the safety level in the Raffle Range flats. This study echoes the finding by Mohit et al. (2010) that indicated that most respondents in their study were not satisfied with the security and crime prevention features in their neighborhoods. There are two different governmental standards for public houses and low-cost housing that comply with the CIDB standards, which are CIS1 and CIS2. Sufian and Rahman's (2008) showed that these two standards use the same bases, which are safety, complete infrastructure, and development of community. They argued that (Bakhtyar, 2012) most developing countries, such as Malaysia, are facing the lack of public facilities and amenities, with a sprawl of development that contributes to the loss of support for public facilities and amenities. This happens in certain areas in Penang where there is a lack of public facilities and amenities while some places are so far to get facilities. The private sector in Malaysia has projects with low quality in neighborhoods, facilities and environment where profits are prioritized (Ghani, 2008).

Table 4: Satisfaction of owner/renter Raffle Ranges Flats

Source: Wan, 2011

| | Satisfaction | Neutral | Dissatisfaction |
|----------------------|--------------|---------|-----------------|
| Comfort | 12% | 40% | 48% |
| Safety & Security | 1% | 30% | 69% |
| Hygiene | 2% | 30% | 68% |
| Health | 25% | 41% | 34% |
| Education Facilities | 23% | 29% | 48% |
| Community Facilities | 34% | 49% | 17% |
| Infrastructure | 20% | 36% | 40% |

Discussion

According to Hafazah (2012), the physical environment domain has shown that quality and safety affect the sense of well-being. Raffle Range flats follow the regulations like minimum design standards for low-cost houses, which include minimum built-up areas of 550 to 600 square feet with two bedrooms, a living room, a kitchen and a bathroom. Raffle Range flats provide small units for 5 household members living inside the house. They are overcrowded together with furniture. Therefore, family activities are limited. Husna and Nurizan (1987) found that a large number of their respondents were dissatisfied with the characteristics of their dwelling units.

However, Idrus and Siong (2008) show that some states in Malaysia have a rule to include three-bedroom apartments for improving the quality in low-cost housing programs. This is supported by Goh (2013), who said that housing developers should not be forced to do a job that rightfully belongs to the Government, and it is wrong to believe that the Government is not good at ensuring adequate housing for the poor.

Conclusions

This paper has presented the spatial experience of living in Penang old public housing for low income families. The scope of understanding for satisfaction of people and quality of life has been identified in the households of Raffle Range flats for the low income groups.

The paper concludes that the quality of life in Malaysian housing have to be improved so that the people live in comfort, health and safety, which are three important aspects to ensure the well-being of people. The findings show the level of household satisfaction on comfort, safety and security, hygiene, health, education facilities, community facilities and infrastructure that they have now at Raffle Range Flats. On the whole, this study has found the satisfaction level related to the housing characteristics and satisfaction on housing and quality of housing related to the basic needs of people to be reasonable.

The research provides a comprehensive view on the basic needs of low income groups living in Penang public housing, where they stay in small houses, and so the government should improve the standard living space for the low income groups. The government should also take action to make sure that old buildings have good maintenance. The Tenth Malaysia Plan, (2011-2015) describes that the program was designed with sufficient and quality public amenities that contributed to a safe, healthy and harmonious living environment regardless of the income groups.

Future research can be conducted on the structure of the building to get more spaces for living, study on opening houses, corridors and balconies. This building can be renovated to make units combined together to get more living space.

Research on the spatial experiences of living in housing is somewhat rare and this paper makes a significant contribution to this area of knowledge. However, it has its weaknesses and limitations. The limitations of this study include being pre-determined and that the respondents were conveniently sampled depending on availability or members of household's willingness to be interviewed. However, the distribution of the sample by the students from block to block housing might not be biased to find results on satisfaction by ethnic groups such as those living in Raffle Range Flats.

References

- Abdul Ghani Salleh. (2008) Neighbourhood factors in private low-cost housing in Malaysia. *Habitat International*, 32(4): 485–497.
- Abraham. Colin E. R, (1979) *Impact of Low Cost Housing on the Employment and Social Structure of Urban Communities: Case Study of Penang, Public and Private Housing in Malaysia*. Kuala Lumpur. Heinemann Educational Books (Asia) LTD.
- Andrew C. Ezeanya. (2004) "Malaysian housing policy: Prospects and obstacles of National Vision 2020" *Proceedings of 2006 International Conference on Adequate & Affordable Housing for All*.
http://www.urbancentre.utoronto.ca/pdfs/housingconference/Ezeanya_Malaysian_Housing_P.pdf.
- Azahan Awang, Abdul Samad Hadi, Jamaluddin Md. Jahi, Asmah Ahmad and Abdul Hadi Harman Shah, (2006) 'Mendefinisi semula makna kualiti hidup dalam konteks ilmu sosial', *Malaysian Journal of Environmental Management*, 7, 19-32.
- Azahan Awang, Abdul Hadi Harman Shah and Kadaruddin Aiyub, (2008) *Penilaian makna kualiti hidup dan aplikasinya dalam bidang pengurusan persekitaran di Malaysia*'. *Akademika* 72, 45-68.
- Azahan Awang, (2007) 'Kualiti hidup dalam konteks persekitaran, akses dan kesediaan diri masyarakat bandar di Malaysia'. *Bangi: Pusat Pengajian Siswazah. Universiti Kebangsaan Malaysia*.
- B Bakhtyar, A Zaharim, K Sopian, S Moghimi. (2013) *Housing for Poor People: A Review on Low Cost Housing Process in Malaysia*', *Wseas Transactions on Environment and Development*, 9(2), 126-136.
- Dasimah Bt Omar. (2009) 'Assessing Residents' Quality of Life in Malaysian New Towns', *Asian Social Science*, Canadian Centre of Science and Education, 5(6)
- Department of Statistics Malaysia (2010). Retrieved December 20, 2010 online www.statistics.gov.my. (Accessed 31 August 2013)

- Ghani, S. & L.M. Lee. (1997a) *Low-cost Housing in Malaysia*. Kuala Lumpur: Utusan Publications. 1997b. *Private sector low cost housing: Lessons from Malaysia*, *International Journal for Housing Science and Its Applications*, 21(1): 35-44.
- Giulietta Fadda and Paola Jirón. (1999) *Quality of life and gender: a methodology for urban research*, *Environment & Urbanization* 11(2) 14-28.
- Goh Ban Lee.(2013) *Case Studies in Public Housing II. Penang*, *Housing the Nation: Policies, Issues and Prospects*. Cagamas, 15, 239-248.
- Hafazah Abdul Karim. (2012) *'Low Cost Housing Environment:Compromising Quality of Life?'*, *Procedia-Social and behavioral Sciences*, 5(2012), 44-53.
- Husna, S. & Nurizan, Y. (1987) *'Housing Provision And Satisfaction Of Low-Income Households In Kuala Lumpur'*, *Habitat International*, 11(4), 27 - 38.
- Idrus, N. and Siong, C.H. (2008) *'Affordable and Quality Housingthrough the Low Cost Housing Provision in Malaysia'*. Seminar of Sustainable development and Governance. University Technology Malaysia.
- K.C. Leong. (1979). Chapter 6 *Low Cost Housing Design* (ed) Tan, S. H. & Sendut H. 1st ed. Kuala Lumpur: Heineemann Educational Book (Ltd) K.L.
- Lee, B. and Guest, A. (1983) *'Determinants of neighborhood satisfaction: A metropolitan-level analysis'*, *Sociological Quarterly*, 24: 287–303.
- Lim, Guan Eng. (2013) *Speech at the Official Launch of the Registration of Affordable Housing, Komtar, Georgetown, 7 February*.
- Malaysian Government (1996) *Seventh Malaysia Plan*. Kuala Lumpur: Government Printer.
- Malaysian Government (2001) *Eighth Malaysia Plan*. Kuala Lumpur: Government Printer.
- Marcuse, P. (1995) *'Interpreting Public Housing History.'* *Journal of Architectural and Planning Research*, 1(3): 240-258.
- McDonald, R.I., Green, P., Balk, D., Fekete, B.M., Balazs, M., Revenga, C., Todd, M. and Montgomery M. (2011) *'Urban growth, climate change, and freshwater availability'*, *Proceedings of the National Academy of Sciences*, 108(15), 6312-6317.
- Mukhija, V. (2004) *'The Contradictions in Enabling Private Developer of Affordable Housing: a Cautionary Case from India'*, *Urban Studies*. 4(11), 2231-2244.
- Morshidi Sirat, Abdul Fatah Che Mamat, Abdul Rashid Abd Aziz, Alip Rahim, Halim Saleh, Usman Hj. Yaakub. (1999) *'Low-cost housing in Urban Industrial Centres of Malaysia: Issue and Challengers'*, Penerbit Universiti Sains Malaysia.
- Peck, C., dan Stewart, K.K., (1985) *'Satisfaction with Housing and Quality of Life'*, *Home Economic Research Journal*, 13 (4): 363 - 372.
- Salleh, B. (1989) *'Malaysian Torrens System. Kuala Lumpur'*, Dewan Bahasa dan Pustaka.
- Sufian, A. and Rahman, R. (2008) *'Quality Housing: Regulatory and Administrative'*, *Framework in Malaysia*. *Int. Journal of Economics and Management*, 2(1), 141 – 156.
- Zakiah.J. (2005) *'Privatisation of Squatters Resettlement. Department Publication and Media Technology'*, Universiti Utara Malaysia. 11,1-14.