

## Demystifying The Low Cost Housing Issues In Malaysia

Wan Sumayyah Syahidah Wan Mohamad<sup>1</sup>, Mohd Rozaimy Bin Ridzuan<sup>2</sup>, Noor Amira Syazwani Abd Rahman<sup>3</sup>

<sup>1</sup>*Faculty of Administrative Science & Policy Studies, Universiti Teknologi MARA (UiTM), Malaysia*  
wansumayyah@uitm.edu.my

<sup>2</sup>*Faculty of Administrative Science & Policy Studies, Universiti Teknologi MARA (UiTM), Malaysia*  
rozaimy@uitm.edu.my

<sup>3</sup>*Faculty of Administrative Science & Policy Studies, Universiti Teknologi MARA (UiTM), Malaysia*  
amirarahman@uitm.edu.my

**Abstract:** A sound housing policy is always becoming a major priority for all governments around the world, especially in the endeavor to provide low cost housing for the low income group people. There is an urgent need for the government to build low cost housing as it offers affordable housing to the low income group. However, low cost housing is always associated with problems. Hence, the main objective of this concept paper is to identify issues that hampered the quality of low cost housing in Malaysia. A thorough review of literatures has been carried out and the findings are spelled out by classifying them into four categories: Maintenance and Management, Structural and Building Materials, Provision of Public Facilities, and External Environment. These are among the areas of concern that need to be rectified to ensure that low income earners are able to own a conducive house. This study concludes that exploring low cost housing residents' feedback on the issues is effective in order to design a quality low cost housing. Without adequate, affordable and quality housing, even the right to live and definitely the quality of life can be seriously jeopardized.

Keyword: Low Cost Housing, Housing Policy, Maintenance Problems, Low Income Group

### Introduction

In Malaysia, housing development is one of the prominent sectors in the construction industry. Since the quality of housing plays a significant effect on the environmental, economic and social dimensions, serious attention needs to be highlighted (Said et al., 2009). Hence, a proper housing strategy that focus on the quality aspect of the housing need to be delineated by the government. This housing strategy supposedly encompasses of all income levels, especially low income group in getting adequate and quality housing (Idrus & Siong, 2008; Sufian & Mohamad, 2009; Ubale, Martin & Wee, 2012).

However, a dominant challenge to the housing industry is the low construction quality of housing (National Housing Department, 2011). Many low cost housing developers still have not met the minimum standard requirement (Economic Planning Unit, 2010). Hence, the primary objective of this concept paper is to identify issues that hampered the quality of low cost housing in Malaysia. A thorough review of literatures has been carried out and the findings are spelled out by classifying them into four categories: Maintenance and Management, Structural and Building Materials, Provision of Public Facilities, and External Environment. These are among the areas of concern that need to be rectified to ensure that low income earners are able to own a conducive house.

## **Maintenance and Management**

Maintenance can be defined as activities required to keep a facility in as built condition and therefore, continuing to have its original productive capacity (Hashim, Samikon, Nasir and Ismail, 2012). Maintenance of the building must be performed regularly to ensure the buildings are kept in good condition (Lateef, 2010). However, Hashim et al. (2012) and Mohammed and Hassanain (2010) in their studies found that several low cost housing experienced problems due to insufficient inspection and maintenance, material limitations, limitations of design, and lack of knowledge in construction. Besides that, studies carried out by Zainal et al. (2012) found that many low cost housing buildings located in Kuala Lumpur, Petaling Jaya, Shah Alam and Klang faced maintenance problems and serious attention need to be done to protect the buildings from further deterioration and decay.

According to Siti Aida Samikon et al., (2013), government in most countries is often labeled as having poor management in maintaining public housing projects. In Malaysia, it is claimed that the maintenance management are having an improper procedure in maintaining the buildings and it may cause bad impacts to the buildings and facilities. Most of the maintenance management is not giving priority for maintenance works and later can cause over budget expenses. In addition, one of the factors that contribute to the high maintenance cost is vandalism practices (Azlan-Shah Ali et al., 2010) and the problem become worst when buildings get older. According to the Housing Management Division of KLCH, RM 51, 274, 161 has been spent for maintenance works on the public houses (PHP housing and KLCH rental houses) in 2005. Meanwhile, the remaining RM 1,450,616. 61 were spent on the repair works due to vandalism in the public houses (KLCH, 2006).

Higher maintenance costs happen when the maintenance management is often reacting to the problem rather than preventive in nature. This problem worsens as costs increased when buildings get older. Besides that, the maintenance cost will be high when the developer of the public housing uses the cheap and low quality materials (Kuala Lumpur Structure Plan 2020, 2004). According to Siti Aida Samikon et al. (2013), this problem is inevitable as housing developer faced lack of fund to use high quality of materials to construct the house.

Residents of low-cost housing are always experience with many problems related to substandard housing quality such as problems with maintenance, comfort levels, health, safety, and security services (Bajunid & Ghazali, 2012). Moreover, a study done by (Omar, 2008; Isnin et al., 2012; Latfi, Karim, & Zahari, 2012) found that low-cost housing projects still lack poor facility-management services such as repair and maintenance, cleanliness, aesthetic value, safety, privacy, and basic amenities. A study conducted by Karim (2012) on low-cost housing quality in Shah Alam, Malaysia found that the performance of low-cost housing was affected by various issues such as quality of construction materials and sanitary systems, provision of facilities and maintenance, location, and social problems. Goh et al. (2012) stated that maintenance is the most vital factor in ensuring the quality of low cost PHP flats. The frequent breakdown of the lift has caused residents have low confidence to use the facility. Since the maintenance cost for lifts are too expensive, it is difficult to manage by the residents.

The study conducted by Isa et al. (2011) argued that there is a swift increase in the cost of maintenance work in various countries, including Hong Kong, Singapore, the United Kingdom, and Malaysia. The Malaysian Government has also increased the budget maintenance for schools other facilities (Government of Malaysia, 2013). Thus, Isa et al. (2011) proposed building best maintenance criteria in order for future sustainable building maintenance management works as follows: 1) clear maintenance policy; 2) systematic maintenance programmers and priority; 3) producing accurate building assessment and condition; and 4) updated information and data integration system. Moreover, Lai and Yik (2004) suggested that maintenance practitioners should be continuously updated their knowledge and keep abreast with any amendments in regulatory controls. They identify that damages could arise due to negligence from legal responsibilities and liabilities. To ensure compliance with relevant acts, maintenance work shall be referred by a competent person, a competent worker, a competent examiner, a registered specialist engineer, and a registered specialist contractor. The integration of design on facilities operation and maintenance is also pronounced by Mohammed and Hassanain (2010) as the communications between facility manager and design professionals is important to ensure a successful project outcome.

A study conducted by Karim (2012) on low-cost housing quality in Shah Alam, Malaysia found that the performance of low-cost housing is affected by various issues such as quality of construction materials and sanitary system, provision of facilities and maintenance, location, and social problems. Similarly, Omar (2008) identified that the root causes leading to poor housing quality is related to housing layout and design, the surrounding environment, the level of maintenance, location, provision of amenities and the quality of building materials. Poor housing conditions cause structural deterioration, falling building fragments, fire and other safety hazards and various health problems (Keall et al., 2010; Wong et al., 2006).

According to Hashim et al. (2012), it is pertinent to monitor the physical condition of public housing buildings regularly so that efforts such as repairs or upgrades can be taken to sustain the performance of public housing. Basically, most of developers or property manager has their own procedures in handling any issues of the residents, however, due to inefficient and ineffective procedures has been resulted in more complaints from residents and the solution of defects in their unit is not properly resolved. According to Siegert (2004), the repair and maintenance of public housing are a long-term task that must be performed consistently over time to ensure that buildings remain in good condition and to avoid the risk of accidents caused by deteriorated infrastructure to preserve the capital value of the structure.

### **Structural and Building Materials**

People are becoming increasingly aware of the quality and adequacy issues in the housing environment. According to Auchterlounie (2009), one of the various defects of construction is caused by the bad building materials. In Malaysia, low cost housing has always been associated with the use of low quality materials as compared to other types of housing (Hanafi, 1999). It can be supported by Karim (2012) who mentioned that the low quality of building materials are the causes of poor housing quality, although the housing layout, the provision of amenities and surrounding environments contributed to the poor housing quality. A study by Isnin et al. (2012) depicts that the majority of the residents of low cost terrace housing in Shah Alam are less satisfied with the use of low quality of materials in constructing the houses. They claimed that the finishing materials used in the building not only threat the social health, but it also affects the environment.

Ramly, Ahmad and Ishak (2006) in their empirical study found that is about 17% architectural defects are due to low quality materials used in constructing the building. Other than that, the issues such as deign defects, vandalism and poor maintenance are among the contributing factors to the defects. The study is similar to the study carried out by Chohan et al. (2011) and Zainal et al. (2012) whereby the material used, the location and the availability of public amenities are among the issues experienced by the residents in low cost housing in Klang Valley. The hazardous and inappropriate building materials such as asbestos roof, ceiling and lead from paint caused bad impact on both the people's health and the environment. Although both materials are less expensive, but they can cause serious health problems such as mesothelioma, lung cancer and asbestosis if the fibers are inhaled (Health and Safety Executive, 2010). The health risks from asbestos exposure increase with heavier exposure and longer exposure time. Occupants are exposed to asbestos at some time during life. Even if most occupants do not become ill from their exposure, many workers who are exposed to it on a regular basis and work directly with the material or through contact were found to become ill. Asbestos has also been shown to cause cancer not only to the workers, but also to the worker's family as they come into contact with fibers from the worker's clothes or shoes.

### **Provision of Public Facilities**

Isnin et al. (2012) highlighted that most low cost housing has scarce space to locate public halls, educational facilities and playground. Bajunid and Ghazali (2012) have categorized three public facilities such as geographical location, physical environment, and social environment. They believed that a house is in good quality if it is well connected with the neighborhood and community. According to Williams et al., (2007), among the basic standard of living, working and playing and urban communities include affordable housing, access to other services such as healthcare, education, and public amenities. A study carried out by Hashim et al. (2012) on housing satisfaction of the residents in Selangor revealed that the residents are not satisfied with the building services and

facilities in their housing area. They pointed out that besides facilities in the house, common facilities such as public transport, education and health facilities, markets, mailing system, community hall, playground, and parking lots are important to support the daily life of the dwellers and to enhance the residents' quality of life.

Isnin et al. (2012) found that the facilities got high criticism from the residents, especially the facilities for the handicapped. This is where it becomes the fourth highest frequency of the dissatisfaction answered by the respondents in the study of (Noraziah Wahi et al., 2018). The problem comes after the third highest frequency in term of the problem faced by the residents which is also regarding of the facility issues that is insufficient numbers of lift.

Goh and Ahmad (2011) revealed that residents are not satisfied with the size of the kitchen. Qualitatively the type of low cost housing in Malaysia has not been satisfactory to the family housing needs, comfort, social, cultural and religious needs. Therefore, local engagement between policy makers and residents is increasingly necessary to make environmental elements and services available, make those neighborhoods liveable and improve the quality of urban life. Besides facilities in the house, basic facilities such as shops, markets, schools, clinic, mailing system, community hall, playground, and others are important to support the daily life of the dwellers, and enhance residents' quality of life (Nurizan, 2001).

The satisfaction factor is an important indicator of housing quality and condition, which affects individuals' quality of life and essential inputs in monitoring the success of housing policies. Salleh (2008), identified the satisfaction levels are generally higher with dwelling units and services provided by the developers than neighborhood facilities and environment. The contributing factors are poor public transportation, lack of children's playgrounds, community halls, car parks, security and disability facilities (Salleh, 2008).

### **External Environment**

The most complex issues faced by the low cost housing residents are related to air and noise pollution resulted from traffic congestion and industry (Zain, 2012; Zainal et al., 2012). Bajunid and Ghazali (2012) mentioned that the surrounding environment plays a dominant role in fulfilling aesthetic needs as well as promoting physical health. However, the executed renovation works could spark health problems among residents. Other than that, environmental problems happened due to poor air quality, less supervision on the environment, inappropriate materials used in construction and so on. Besides that, studies found that some developers used the improper materials in the construction such as ceiling tile and floor coverings (Isnin, 2010). Many owners and house occupants still stay in the house during the construction activities.

Mohd Farid et al. (2014) believed that the outdoor environment is vital when the indoor space is very limited which induced the residents especially the children to spend more time outside. The outdoor environment is very important to the development of children. Hence, a good outdoor environmental quality is very crucial for the health and child development in low cost flat. Zarina et al. (2011) had carried out study in three low cost terrace houses in Shah Alam and found that about 57% respondents express less satisfaction especially in terms of noise and parking space. Interview sessions were also carried out to find out the reasons for their satisfaction levels. These findings were then analyzed and divided into several possible effects. Harmful materials which are hazardous, such as asbestos roof sheets, tins of paints were found illegally dumped at the back lanes and in the grassing area while some even blocked the drainage. Some drains have become stagnant. This is unsanitary and poses a health hazard and pose risks to children who play with the water. Children were also found to be loitering near the debris container looking for objects that they might use for playing.

Besides that, the construction activities in the housing area caused the roadways become narrower and less space for parking. The aesthetic value of the housing areas also have been affected most extension works have been done in non-uniformity. For instance, different colours of roofs, different materials used as well as the shape. Defects were also found at the neighbour's house due to different height and ignored repair works due to the extension works. Hamsa, Masao, Shuhei and Yosuke (2010) highlighted the several inadequacies of living environment houses at Taman Melati residential

area in Kuala Lumpur. The study addressed the problems of physical, environmental parameters such as noise level, air pollution, and level and traffic volume. Zainal, Kaur, Ahmad, and Khalili (2012), highlighted that quality of surrounding environment was measured by air quality and peaceful environments. They found that surrounding environment has significant positive correlation with health status and the overall quality of life.

## Conclusion

It is vital to examine the adequacy and quality of low cost housing. The outcomes of this research a significant feedback to the Malaysian Government to formulate a sound housing policy. The importance of evaluating low-cost housing quality will benefit the relevant authorities such as Kuala Lumpur City Hall (KLCH) and the federal government in Malaysia. Thus, in response to the growing awareness of quality and adequacy, more studies on this topic need to be conducted, as housing quality and adequacy are crucial factors that determine the housing provided meet the needs and expectations of existing and potential house owners. For these reasons, this study intends to fill the gap by evaluating the adequacy and quality of low-cost flats. It is hoped that the developer will be able to tackle the issues of Maintenance and Management, Structural and Building Materials, Provision of Public Facilities, and External Environment in constructing low cost housing in the future.

## References

- Ahmad Ezanee Hashim, Siti Aida Samikon, Nasyairi Mat Nasir & Normazwin Ismail (2012). Assessing factors influencing Performance of Malaysian Low-Cost Public Housing in Sustainable Environment. *Social and Behavioral Sciences*, 50, 921-926.
- Auchterlounie, T. (2009). "Recurring quality issue in the UK private house building industry", 27(3), 241-251.
- Azlan-Shah Ali, Syahrul-Nizam Kamaruzzaman, Raha Sulaiman, Yong Cheong Peng, (2010). Factors affecting housing maintenance cost in Malaysia. *Journal of Facilities Management*, 8(4), 285-298.
- Bajunid, A. F. I., & Ghazali, M. (2012). Affordable Mosaic Housing: Rethinking Low-Cost Housing. *Procedia - Social and Behavioral Sciences*, 49, 245–256
- Chohan, A. H., Tahir, M. M., Abdullah, N. A. G., & Tawil, N. M. (2011). Housing and analysis of design defects : A post occupational evaluation of private housing in Malaysia, 6(2), 193–203.
- Hanafi, Z. (1999). *Rekabentuk Bangunan Dalam Iklim Panas dan Lembap di Malaysia*, Dewan Bahasa dan Pustaka, Kuala Lumpur.
- Hashim, A. E., Samikon, S. A., Nasir, N. M., & Ismail, N. (2012). Assessing Factors Influencing Performance of Malaysian Low-Cost Public Housing in Sustainable Environment. *Procedia -Social and Behavioral Sciences*, 50, 920–927. doi:10.1016/j.sbspro.2012.08.093
- Health and Safety Executive (2010). Asbestos Related Disease Statistics; Retrieved from <http://www.hse.gov.uk/statistics/causdis/asbfaq.htm>.
- Husin, H. N., Nawawi, A. H., Ismail, F., & Khalil, N. (2012). Preliminary Survey of Integrated Safety Elements into Post Occupancy Evaluation for Malaysia's Low Cost Housing. *Procedia-Social and Behavioral Sciences*, 36, 583–590.
- Government of Malaysia, National Budget 2013. Economic Planning Unit Minister's Department.
- Isnin, Z. (2010). Public Awareness Program For Asbestos, Bitumen And Lead Exposure (Pap-Able): A Global Construction And Environmental Risk Problem; Unpublished Research, Universiti Teknologi MARA.
- Isa, A.F.M., Zainal, A.Z. & Hashim, A.E. (2011). Built Heritage Maintenance: A Malaysian Perspectives. *Science Direct*. 20, 213-221
- Karim, H. A. (2012). Low Cost Housing Environment: Compromising Quality of Life? *Procedia - Social and Behavioral Sciences*, 35, 44–5
- Lateef, O. A. (2010). Case for alternative approach to building maintenance management of public universities. *Journal of Building Appraisal*, 5(3), 201–212.
- Lai, J.H.K. and Yik, F.W.H. (2011). An analytical method to evaluate facility management services for residential buildings. *Building and Environment*, 46, 165-175
- Mohammed, M. A., and Hassanain, M. A. (2010). Towards improvement in facilities operation and maintenance through feedback to the design team. *The Built & Human Environment Review*, 3, 72-87.
- Mohd Farid Mohamed, Sudharshan N. Raman, Tito Maulana Iman Pratama, Wardah Fatimah

- Mohammad Yusoff (2014). Outdoor Environment of Low-cost Housing: A case study of Flat Taman Desa Sentosa. Web Conference 3, 01005.
- Noraziah Wahi, Rosli Mohamad Zin, Vikneswaran Munikanan, Ismail Mohamad, Syahrizan Junaini (2018). *Problems and Issues of High Rise Low Cost Housing in Malaysia. Material Science and Engineering*, 341, 5-9.
- Nurizan, Y., & Hashim, A. H. Malaysia. (2001). Perumahan dan Kediaman. Malaysia: Universiti Putra Malaysia.
- Oh, L. S. (2000). Housing satisfaction of middle income households in Bandar Baru Bangi, Selangor. Dissertation, Universiti Pertanian Malaysia.
- Ramly, A., Ahmad, N. A. & Ishak, N.H. (2006). The effects of design on the maintenance of public housing buildings in Malaysia-Part two. *Building Engineer*. 34-36.
- Siti Aida Samikon, Zulhabri Ismail, Ahmad Ezanee Hashim and Nasyairi Mat Nasir (2013). Managing Adaptation in Low-Cost Public Housing: A Conceptual Framework. *Recent Advances in Energy and Environment Integrated Systems*. 17-24.
- Zarina Isnin, Rohaslinda Ramli, Ahmad Ezanee, H., and Irwan M. A. (2012). Are House Alterations Sustainable? *Journal of asian Behavioural Studies*, 2(5), 1-14.
- Zarina Isnin, Rohaslinda Ramli, Ahmad Ezanee, H., and Irwan M. A. (2011). Sustainable Issues in Low Cost Housing Alteration Projects. *Social and Behavioral Sciences* 36 ( 2012 ) 393 – 401.
- Zainal, N. R., Kaur, G., Ahmad, N. 'Aisah, & Khalili, J. M. (2012). Housing Conditions and Quality of Life of the Urban Poor in Malaysia. *Procedia - Social and Behavioral Sciences*, 50, 827–838.