

Implementation of affordable housing programmes in Johor, Malaysia for sustainable housing

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Abstract. Sustainability in housing includes the concept of housing affordability that revolves around the elements of sustainable housing affordability. Affordable housing provision could be discussed under the context of social equity where it demonstrates the ability of all segments of the population to have access to housing. Housing production in Malaysia is mostly dominated by private sector developers and is generally based on supply and demand in the open market. Government intervention in the form of policies and programmes that include affordable housing programmes were introduced to assist all segment of population to have access to housing. This study looks at the implementation of these programmes in the state of Johor, Malaysia. The objectives of this paper are to define housing sustainability through implementation of affordable housing programmes; to determine if these programmes comply with the concept of sustainable housing affordability. Finally, general issues on its implementation will be identified. Findings indicates that the concept of the housing programmes introduced fulfils the criteria for sustainable housing affordability, such as in terms of its price, quality of house, specifications, proximity to facilities and to work place. Some of the main issues identified on its implementation at state and local government can be summarised as the existence of separation of jurisdictions and authorities between the federal and state governments; conflicting requirement for policies between state and federal government and lack of specific Standard Operating Procedure (SOP), which contributes towards delays in the overall development process.

1. Introduction

The most common concept of sustainable housing usually encompasses various aspects that include sustainability with reference to the housing elements. However, sustainability in housing also includes the concept of housing affordability that revolves around the elements of sustainable housing affordability. In general, planning for housing provision is one of the major concerns of states regardless of their socio-economic background and development stage. According to the latest available official figures, Malaysia has a home ownership rate of 72.5% [1]. Housing ownership is more favoured for its positive economic effects at national and individual levels [2]. As a bigger part of the population is concerned about home ownership this has given the rise for the need to ensure that housing is accessible



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and affordable to all level of society. Housing provision for medium-cost housing is significant, as it constitutes towards the biggest bulk in the projected housing needs 1996 – 2020 where it forms 90.1% from the overall projected housing needs in 2011-2015 Malaysia Plan. In Malaysia, both private and public sector play an important role in the provision of housing. Both private and public sector share the responsibility to provide for housing. Traditionally, housing for the lower income population are provided for by the public sector while, the private sector will mostly provide for high and medium cost housing. According to Agus [3], housing production in Malaysia is mostly dominated by private sector developers. However, due to developers' profit making priority, they tend to provide for higher end housing for bigger profit margin and to offset loss that they bear to fulfil government's requirement for low cost housing. Therefore, intervention by government through the implementation of housing policies is potential to achieve sustainable housing affordability by providing equal access to housing for all segments of the population. The policy of getting private sector's participation in various affordable housing programmes that offers housing at mid-range pricing for middle income population has begun since 2012 to date [4]. The implementation of these programmes should be studied to see its significance in achieving sustainability in housing provision. This paper aims to establish an argument on the significance of the implementation of affordable housing programmes as part of the housing policy to achieve sustainable housing provision particularly in the aspect of housing affordability. The definition of housing sustainability in the context of this paper will first be discussed in relation to intervention by government through implementation of affordable housing programmes. This will be followed by discussion on the concept of the affordable housing programmes to determine if it complies with the concept of sustainable housing affordability. Finally, general issues on its implementation will be identified.

2. Methodology

The state of Johor (1°27'20"N 103°45'40"E) is chosen as the case study as land and in particular matters on housing provision in Malaysia falls under state government's jurisdiction. Therefore, housing policy implementation is under the state's jurisdiction. Institutional framework differs between states within Malaysia, hence the decision to carry out the study in Johor Bahru (the capital for the state of Johor) as it is facing a very competitive and rapid development with development of Iskandar region and is categorised as a state with "seriously unaffordable" housing [1]. According to the Department of Statistics Malaysia (2014), Malaysian population are categorised into 3 groups, namely the B40 or bottom 40% with house monthly household income of below \$US 924 (at 31 Oct, 2019, RM3,860), M40 or middle 40% with monthly household income of between (monthly income between \$US 924 - \$US 1992 (RM3,860 – RM8,319) and T20 or top 20% with monthly household income of \$US 1992 (or RM8,319) and above. M40 group is chosen, as currently there is an issue in the provision of affordable housing for this segment of the population. This paper uses a combination of literature and qualitative study to achieve the said objectives. To identify issues in the implementation of these programmes and scheme throughout the development process, an in-depth interview 5 with five (5) respondents who represented the main stakeholders involved with the implementation of the programmes at state and local government is carried out. These respondents were chosen as they are the main players involved with the development of affordable housing programmes in Johor. They are from UPEN HOUSING TASK FORCE who is responsible for the monitoring of the implementation of affordable and subsidized housing by developer; SUKJ (Perumahan) who oversees the housing policy implementation and allocation of subsidised housing units; 2 prominent developers who are involved with major housing development in Johor Bahru and one PRIMA developer in Johor Bahru as one of the main federal affordable housing programmes implemented in Johor Bahru. A qualitative approach is carried out with a content analysis of the existing affordable housing programmes particularly for the M40 group and an in depth interview with main players in affordable housing programme in Johor Bahru who are involved with affordable housing programmes/schemes to identify current affordable housing scenario.

3. Housing and development

3.1 Housing sustainability

The basic definition of sustainability is “development that meets the needs of the present without compromising the ability of future generations to meet their own needs”. However, this is more geared towards the environmental aspect. In a broader aspect, sustainability would also include social (health and equity), human values (freedom, tolerance and respect for nature) and ecological (climate, air quality and land-use efficiency) attributes [5,6,7]. However, the more recent definition of sustainability refers to the observation of balancing between the three concepts namely economic development, social equity and environmental protection. [5, 8]. Housing provision could be discussed under the social equity concept that is much related with the context of affordability. Among other things, social equity demonstrates the ability of all segments of the population to have access to housing. At the very core of the issue is income inequality – which has resulted to inaccessibility to affordable housing. Housing equity especially in prime urban areas can be attributed to the absence or the low rate of homelessness, housing insecurity and social exclusion. Equity also relates to equal opportunity in access to housing and this will be reflected as sustainable housing affordability and how the implementation of housing policy such as the affordable housing programmes could assist the poorer segment of the society to have access to housing thus increasing the housing sustainability. Whether a nation’s domestic policies support principles of social equity and social welfare depends greatly on its economic stage and political environment.

In developing a discussion on housing sustainability, a framework for determining the criteria for housing sustainability has been developed by Pullen S et al in [9]. The sustainability criteria set consist of nine essential elements and sub-elements. The essential elements are efficiency (energy, water), construction (materials, methods), procurement (government, private, and public-private partnership), affordability (purchase or rent), desirability, dwelling sizes, appropriate density (low, medium, high), adaptability and social acceptability. This indicates that, sustainable housing affordability should not only be about the pricing or just about cheap homes but must incorporate other factors [10]. Affordability is mentioned as one of the essential elements - this demonstrate the importance of affordability in determining the sustainability of housing and this further correspond with the context of this study that looks at housing affordability. Said R et al [8] identified these criteria to measure sustainable housing affordability; they are house price, house type, house finishes, house design, position of the house in layout plan, size of land area, age of the unit, topography, property interest, near to commercial area, near to hospitals, near to post office, near to recreation area & public space, near to transportation, near to education, near to workplace, Environment Quality, Security, Traffic Congestion, Density, View, Exterior Condition, Availability of Waste Management, Safety Level and Theme or Concept. Findings indicated that house price as the most significant criteria and followed by social aspect e.g. safety, proximity to work place and public facilities/amenities and lastly the built environment aspect, such as the specifications etc.

3.2 Affordable housing

According to demographic international housing affordability survey (2015) the median multiple is a common metric, suggested by the World Bank and the United Nations which rates affordability of housing by dividing the median house price by aggregate annual median household income. Median multiple is used as the common metric to measure affordability to purchase houses. This is done by dividing the median house price by aggregate annual median household income [1,11]. Housing affordability is rated on a scale of 0 to 5. The 3.0x median multiple signs that the market delivers a distribution of housing that are subjected to minimal distortions [12]. Basically, the main indicator for affordable housing is the price, in relation to the income level. According to Milligan, the idea of affordable housing recognizes the needs of households whose incomes are not sufficient to allow them to access appropriate housing in the market without assistance [13]. Therefore, assistance or government

intervention is significant in assisting these segments of the population. Thus, the term 'affordable housing' describes housing that assists lower income households in obtaining and paying for appropriate housing without experiencing undue financial hardship [13]. A house is considered affordable if it costs less than 30 percent of gross household income [14]. However, this is not often the case in Malaysia if referring to the median multiple that demonstrate that most prime urban areas in Malaysia like Kuala Lumpur, Penang and Johor Bahru is facing “seriously unaffordable” scenario for housing affordability [1].

3.3 Government intervention

Government intervention in the development process within the domain of planning is significant in addressing housing equity issues. In the context of housing provision, many scholars stressed the importance to balance housing market situation. Barker (2004) emphasised the need to “strike a balance” to achieve among others in the context of housing an adequate and affordable housing for a growing population; and meeting the aspirations of individuals as to the amount of space, the location and nature of housing to be provided [15]. Housing market works within the supply and demand concept and when the supply of lower cost housing falls short, the government has to intervene to ensure equity in access to housing. State intervention usually takes varied forms. It may come in the form of taxation or subsidies, direct ownership and/or participation in investment and provision of goods and services, or it may take the form of administrative/regulatory controls [16]. Housing policy in terms of proposed affordable housing programs/schemes that include private sector’s participation is a form of intervention that has been introduced in Malaysian housing scenario.

4. Malaysian housing scenario

4.1 Housing system

Malaysia practiced a mixed economic system that sees government intervention in certain areas in housing provision in which the main provider for housing is private developer. The system of land use planning in Malaysia consists of a framework of development plans, which form the basis on which applications for development are determined. The development plans, which consist of structure and local plans are prepared by local planning authorities to identify types and locations of land use for housing development [17]. Housing provision in Malaysia sees the involvement of a three tier government – the federal (central), the state and the local government. The inter relation of these governments in the current housing development mechanism are outlined with each government bearing specific authority. Besides the federal/central government; the state and local government also have statutory power to formulate certain housing policy and regulations. Although Malaysia has a very structured housing policy at federal level, implementation of housing is done at state and local government level which is subject to state government’s policies.

4.2 Housing policy

The evolution of the housing industry in Malaysia is significant since 1971, divided into four phases namely Housing the Poor (1971-1985), Market reform (1986-1997), Slums Clearance (1998-2011) and State Affordable Housing (2012-to date) [4]. Among the main highlights in the current National Housing Policy are to enhance the role of state government agencies, besides federal government agencies and the private sector to provide affordable houses for the nation. Therefore, the state’s role is crucial as the delivery of affordable housing mostly materialised at the state level. Within this policy framework, various agencies have responsibilities and authorities in dealing with housing provision. Among the recent approaches to address issues on affordable housing is through the introduction of various affordable housing programme targeted at specific segment of the population (middle-income population - the M40 group) in prime urban areas [18]. The introduction of these affordable housing programmes with involvement of private sectors as the main provider is aimed at giving assistance to this group to get access to housing.

4.3 Types of affordable housing programme

There are four (4) types of housing programmes/schemes that are going to be discussed in this paper with the selling price ranging from \$US35,895 to \$US95,721 (RM150,000 to RM400,000) per unit. This price range is affordable for M40 group that is facing difficulties to have access to housing. Three (3) of the programmes are federal initiatives (PRIMA, MyHome and PPAM) [18] and one (1) programme/scheme is under Johor state housing policy (RMMJ)

4.3.1. Rumah Mampu Milik Johor (RMMJ). Implementation of this housing scheme is embedded in the Johor housing policy and the allocation is specifically for Johorian and those who reside in Johor for a certain period of time (at least 5 years) through the requirement imposed to developers. Developers are to provide affordable housing within area of development that must be sold at stipulated prices, determined by state government, \$US10,050 - \$US35,895 (RM42,000 – RM150,000) per unit. The development of these units is by developers who are developing housing projects. This is considered as allocation for the low cost housing with a specific percentage requirement for units at price range for low medium cost \$US10,050 (42,000/unit) and \$US19,150 (RM80,000/unit) and medium cost at \$US35,895 (RM150,000/unit). This policy is only implemented in Johor and allocation is under Setiausaha Kerajaan Negeri Johor (Perumahan) – SUKJ (Perumahan).

4.3.2 PRIMA. PRIMA (Perumahan Rakyat 1 Malaysia) is an affordable housing initiative introduced by Dato' Seri Najib Tun Abd Razak, Malaysia (the then Prime Minister) in the 2012 budget. It was established under the PRIMA Act 2012, which was passed by parliament on 29 November 2011. The establishment is to plan, develop, construct and maintain affordable housing for middle-income households in key urban centres. It is a strategic initiative to provide for affordable housing for households with a combined income bracket under \$US1490 (RM10 500). PRIMA has various development models that sees public private partnership as the main thrust in developing affordable housing.

4.3.3 MYHOME SCHEME. This scheme was launched in April 2014 and is to be carried out by private sector. This scheme requires private developers to apply to the federal government for the scheme to enable the developer to get incentive of \$US7181 (RM30,000) from the government to offset the units' selling price. Projects should already acquire an approved planning permission. Selection of projects would depends on whether they adhere to the requirements such as the location (at strategic, prime city area) as there is no specific specification but the project should have followed the minimum requirement by local authority as planning permission has already been obtained. However, the approving unit that is under Unit MyHome Schemes, Ministry of Housing and Local Government have certain minimum requirement to ensure the quality of the housing units.

4.3.4 PPAM. PPAM (Perumahan Penjawat Awam Malaysia) scheme is established to assist young civil servant with medium income level to own quality house that is lower than the market price within a strategic location (prime urban areas) . These locations should be near their workplace and is within their affordability level. Civil servants include those working under federal, state, local authority and federal and state statutory bodies. This is a private sector initiative where houses are provided by developer (build, financed and sold). Houses are sold to civil servants from the list of buyers provided by the implementing agency and the coordinating body, which is the unit PPAM, Ministry of Housing and Local Government.

5. Findings

5.1 Attributes for sustainable housing affordability

To further discuss the significance of the sustainable housing affordability, a matrix to analyse the ability of the housing system through the medium of physical development plans and various affordable housing schemes to plan or control these attributes is formulated (Table 1). Said identified and established the attributes to measure sustainable housing affordability [8], used here – see Table 1 and Table 2.

Table 1. Literature on criteria for sustainable housing affordability

CRITERIAS/ATTRIBUTES	REFERENCE	ABILITY TO PLAN/CONTROL	
<u>ECONOMIC</u>			
- Pricing	Said R et al(2017)	√	
- Affordability (purchase or rent)	Pullen S et al., (2010)	√	
- Procurement (government, private, public-private partnership)	Pullen S et al., (2010)	√	
<u>BUILT ENVIRONMENT</u>			
- SPECIFICATION	- House Finishes - House Design - Position of the House in Layout Plan - Age of the Unit	Said R et al(2017)	√
- TYPES OF HOUSE		Said R et al(2017)	-
- SIZE OF BUILT UP AREA	- dwelling size	Pullen S et al., (2010) Said R et al(2017)	√
- SIZE OF LAND AREA		Said R et al(2017)	-
- TOPOGRPHY		Said R et al(2017)	-
- DENSITY	- appropriate density (low, medium, high)	Pullen S et al., (2010)	Under rqmnt In devt control
- ENVIRONMENT QUALITY	- Efficiency (energy, water),	Pullen S et al., (2010)	Under rqmnt In devt control
- CONSTRUCTION	- Materials - Methods	Pullen S et al., (2010)	Under rqmnt In devt control
- EXTERIOR CONDITION		Said R et al(2017)	-
<u>SOCIAL</u>			
- LOCATION (IN PRIME URBAN AREAS)	- Near to commercial areas - Near to Hospitals - Near to Post Office - Near to Recreation Area & Public Space - Near to Transportation, Near to Education - Near to Workplace	Said R et al(2017)	√
- LOCATION (NEAR TO WORK PLACE)		Said R et al(2017)	√
- AVAILABILITY OF WASTE MANAGEMENT		Said R et al(2017)	Under rqmnt In devt control
- SECURITY	- Traffic congestion - Safety level	Said R et al(2017)	Under rqmnt In devt control
- LOCATION (NEAR TO PUBLIC FACILITIES/AMENITIES)	- Near to Hospitals - Near to Post Office - Near to Recreation Area & Public Space - Near to Transportation, Near to Education,	Said R et al(2017)	√
- SOCIAL ACCEPTABILITY	- Traffic congestion - Theme or Concept.	Pullen S et al., (2010)	-

According to the above matrix, it can be concluded that in the context of housing provision in Malaysia there are various medium that could control and ensure that sustainable housing affordability could be achieved. These are through the requirements in the development control procedures; and the requirements in the specific affordable housing programmes.

5.2 Concept of housing sustainability

The affordable housing programmes discussed earlier is further evaluated against the attributes in Table 2 to determine if it could achieve the sustainable housing affordability. Said identified and established the attributes to measure sustainable housing affordability which is used in this study [8] (Refer to attributes in Table 1 and Table 2).

Overall, these programmes are planned to better fulfil the demand for affordable housing among various segment of population within the M40 groups. These programmes demand involvement from private sectors (developers). It can be concluded that the main objective of these affordable housing programmes is to provide affordable housing within prime urban areas. Pricing is controlled within range slightly lower than current market price through subsidies from federal government. The state affordable housing programme (RMMJ) is more flexible in terms of its location, as it is developed as a portion from the total housing development project by the prospective developer.

5.3 Affordable housing programs in Johor

Generally, in terms of providing for the middle income group; the affordable housing programmes seem to be an ideal solution to bridge the gap between the low income housing and the higher cost. The housing programmes offer houses within the price range of \$US35,895 to \$US95,721 (RM150,000 – RM400,000). In the case of Johor, state affordable housing policy requires developers venturing in housing development to allocate some percentage for houses within the price range of \$US10,050 - \$US35,895 (RM42,000 – RM150,000). The allocation of these units is put under the Setiausaha Kerajaan Negeri Johor (Perumahan) – SUKJ(Perumahan) jurisdiction to ensure houses are allocated to the intended segment. All four (4) programmes emphasised on location of the housing, which indicate that the housing projects should be developed in prime city area. As for the pricing; which is the most significant criteria in sustainable housing affordability [8]. All four (4) programmes/schemes has their price range that has been determined to cater for various income segment. These house price is considered as affordable in prime urban areas especially for the M40 groups.

Table 2 . Evaluation of sustainable housing affordability in housing programmes

HOUSING PROGRAM	RRMJ	MY HOME SCHEME	PRIMA	PPA1M	DISCUSSION
ATTRIBUTES/ CRITERIAS					
<u>ECONOMIC</u>	<\$US35,895	\$US35,895	\$US35,895 - \$US95,721	\$US35,895	
- PRICING	<\$US35,895 RM 150,000	\$US42,584 RM150,000 – RM300.00	RM150,000 – RM400,000	\$US42,584 RM150,000 – RM300,000	Pricing depends on target group
- PROCUREMENT	Private (allocation by government)	Public private partnership	Public private partnership	Public private partnership	
- AFFORDABILITY (eligibility – household income)	<\$US994 (RM7,000) (for units selling at \$US35,895 RM150,000)	MYHOME 1 : \$US426 - \$US568 RM3000 – RM4000 and MYHOME 2 : \$US568 - \$US852 RM4001 – RM6000	Combined household income \$US1490 <RM10,000	Not clearly stated – priority given to first time home buyer (government civil servant)	Each programme have different target group (from various income bracket)
<u>PHYSICAL</u>					
- SPECIFICATION	According to local authorities rqmnt	According to MyHome Unit, Ministry of Housing & Local Govt	According to PRIMA Bhd rqmnt	According to PPAM Unit, Ministry of Housing & Local Govt	Specifications may differ among MyHome/PRIMA/PPAM – objective to have quality housing
- SIZE OF BUILT UP AREA	According to RMMJ (state’s policy rqmnt	minimum square foot of the units ; MyHome 1 – Minimum 74.32 sq m and MyHome2 – Minimum 78.97 sq m			Specifications may differ among MyHome/PRIMA/PPAM – objective to have quality housing
<u>SOCIAL</u>					
- LOCATION (IN PRIME URBAN AREAS)	Is developed based on state’s requirement (at certain percentage for any proposed development)	√	√	√	Main principle for MyHome/PRIMA/PPAM programmes/schemes
- LOCATION (NEAR TO WORK PLACE)	Depends on proposed devt			√	Main principle for MyHome/PRIMA/PPAM programmes/schemes
- LOCATION (NEAR TO PUBLIC FACILITIES/AMENITIES)	According to local authorities rqmnt	√	√	√	Being in prime urban areas; MyHome/PRIMA/PPAM programmes/schemes is mostly near to public facilities /amenities

5.4 Implementation of housing programmes/schemes

An in-depth interview to get some perspective on the current affordable housing scenario from several main players involved with the provision of affordable housing in Johor Bahru, namely ; UPEN,

HOUSING TASK FORCE, SUK(Perumahan), 2 prominent developers and a PRIMA developer in Johor Bahru. Various issues were highlighted :

- a) Inconsistency in the policy for affordable housing – definition, requirements and implementation:
This is further aggravated by the existence of separate federal and state policy. PRIMA developer emphasise the issue about inconsistency - quote “There are various definitions and requirements of affordable housing (according to differing implementing agencies); and we still have to adhere to state’s requirement although we are doing the federal affordable programmes/schemes” unquote.
- b) Coordination – Bureaucracy and overlapping of jurisdiction
Issues in coordination; especially one that involved discrepancy of federal and state government policies. Various studies identified coordination among the vertical and horizontal government agencies as the most crucial area for improvement towards better government delivery services [19]. One of the challenge claimed by housing developers is the lack of coordination between local authorities during the stage in getting approval for housing planning permission. [17].
- c) Transparency and Clarity in the whole process
UPEN officer clarify that there is no specific procedure or guideline in dealing with implementation of federal programme at state – quote “We don’t have a specific guideline to process application (for waiver etc) from developer – especially those implementing federal affordable housing programmes/schemes (like PRIMA) “ unquote.
- d) Developers Ethic – Profit Making Objective
According to a representative from a prominent developer in Johor : Quote “RMMJ is a state requirement (policy). And we (as developer) is required to provide for a certain percentage of these houses. Therefore, we will sell other units (in other phases) according to demand and supply (of the market)” unquote.

Findings from the in depth interview carried out among the main players in Johor affordable housing provision can be summarised as to what is the main concern of the developers. This proved to be on cost and issues highlighted reflect delay in the overall development process that leads to increase in cost. Delay occurs either on the requirement to build state’s affordable housing (RMMJ) and overlapping of jurisdiction between federal and state government that indicates issues in terms of coordination, clarity of the development process and bureaucracy. These have affected the efficiency of the development process that increased either the production cost or period of time taken in the overall development process. These become a deterrent for private sector’s involvement in carrying out affordable housing programmes.

6. Conclusion

Affordable housing can be regarded as one of important aspect of sustainability. The ability of all segments of the population to have access to housing is significant to ensure sustainability within the social domain – which can be termed as sustainable housing affordability This could either be in the form of ownership or rental units. In Malaysia, where there exists a prevailing issues in the provision of affordable housing for medium income population; various efforts have been carried out to address this issue. Implementation of affordable housing programmes/schemes by private sector is significant in the context of Malaysia, and the state of Johor in particular as it practices mixed economy system where housing is very much affected by supply and demand in the housing market. In conclusion, the criterias of housing programmes and schemes discussed are consistent with previous literature on sustainable housing affordability. Among the factors emphasised are in terms of location – which requires these programmes and schemes to be developed in prime city area. This ensures proximity to various public facilities and infrastructure. Therefore, in terms of the implementing principles and the main criteria of the discussed, these affordable housing programmes do adhere to the sustainable housing affordability. However, the nature of Malaysian legislative structure where there are three level of governments – federal, state and local government posed some conflicts in terms of housing policy implementation as there is a discrepancy in the requirement for policies between state and federal government and there is lack of specific Standard Operating Procedure (SOP) for federal programmes implemented at state. These contributes towards delays in the overall development process. Therefore, these factors need to

be addressed as these affordable housing programmes/scheme has the potential to encourage equal access to all segment of the population and eventually achieving sustainable housing affordability.

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