

## Study of Preferences and Economic Aspects of Low-Income Housing Development (LIC) in Batangkuis Sub-District

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### ABSTRACT

The rapid growth and development of major cities in Indonesia has resulted in regional growth and the formation of a class of Low-Income Communities (LIC) and the problem of providing housing for them. This study was conducted to identify the preferences of low-income housing ownership as well as to examine the development of low-income housing in terms of economic aspects. A quantitative approach was taken for LIC home ownership preferences and qualitative for LIC housing development prospects from an economic aspect. The results showed that home ownership preferences and the willingness of LIC to pay for housing units were influenced by variables of residential typology in the form of a single detached house, affordable prices with the ability to pay for LIC, convenient location, provision of basic housing facilities and infrastructure, good quality with attractive designs without affecting the price and supported by the availability of financing institutions that provide installment scheme facilities. LIC housing development in Batangkuis District in terms of economic aspects shows promising prospects in terms of supply by developers where land prices and financing along with construction costs as well as licensing and other legalities are still below the selling price set by the government. The availability of banking financing institutions that help facilitate financing also supports developers in marketing and sales. Meanwhile, from the side of LIC consumers in Batangkuis Sub-district, the availability of financing institutions has no effect because of the gap between the concept of financing and their economic capacity. The amount of monthly installments and initial financing is quite large, making them unable to access subsidized LIC housing developed in Batangkuis District.

**Keywords:** home ownership; LIC; economic aspects; Batangkuis.

### INTRODUCTION

House is one of the basic human needs in addition to food and clothing, which functions as a place to live or shelter from climate disturbances and other living things as well as the initial place of life development and family development (Yudohusodo, S, 1991). In addition, the house is a place for survival and as a standard indicator of a person in the community environment (Omolola & Ayoride, 2016). Therefore the United Nations (UN) encourages to campaign for the establishment of houses or housing as a physical environment of residence by providing a number of facilities, services, and utilities to connect individuals and their families with the surrounding community for good social development (United Nations, 1976). The State of Republic of Indonesia also makes decent housing as a basic right of citizens and is explained in the 1945 Constitution Article 28 H which mandates that: "everyone has the right to live a prosperous life outwardly and mentally, to reside, and to get a good and healthy living environment and the right to health services."

The rapid growth and development of major cities in Indonesia resulted in regional growth and the emergence of satellite cities around it (Yudohusodo, 1988). The development of the surrounding area is caused because the city center is no longer able to accommodate the increase in activity and the need for space. As a result, periphery urban areas that were previously rural areas developed significantly as buffer cities for large cities as their core (Ministry of PUPR, 2020). The phenomenon of land use change is part of the transformation of the social economic structure where economic and population growth

centered on urban areas will later require wider space towards the suburbs both for various economic activities and settlements (Nugroho & Dahuri, 2012).

One of the impacts of this growth is the creation of the Low Income Community (LIC) class. LIC is a group of people who do not have many choices in getting housing due to limited income. Access to decent housing for LIC is as important as for other community groups, especially for those who already have families, housing is very important to shelter and protect the sustainability of family relationships (Farraz & Barus, 2019). The limited purchasing power of LIC makes them prefer to be or live in temporary dwellings even tend to be uninhabitable and some of them prefer to rent a house (Hutapea & Suwandono, 2014). The provision of subsidized housing for LIC is important considering that one of the main problems in the housing and settlement sector in Indonesia is the limited provision of housing or backlog that is closely related to the LIC community (Ministry of National Development Planning / Bappenas 2015).

The need for housing for the LIC group is the main problem in terms of procurement. In addition to the government's limited and fixed capabilities (Pakpahan, 2015 in Indradjati, 2020), the problem of providing LIC housing in urban areas is generally related to land prices that are too high. Therefore, a greater role of the state is needed in ensuring the fulfillment of housing for this group (Lisnawati, 2015). This is also the case in some other Asian countries, such as China and India, where the role of governments in providing livable and affordable housing for the poor requires specific policies such as policies related to land provision and appropriate financing systems (Cai & Lu, 2015; Ram & Needham, 2016; Shi, Chen, & Wang, 2016). While the supply of houses in the housing market is very dependent on private developers, who tend not to be interested in building houses for LIC because they are considered less profitable (Tunas, D & Peresthu, A, 2010).

Medan City as one of the major cities in Indonesia is experiencing rapid growth and development, therefore the government has designated it as a National Strategic Area (KSN) polar center of economic growth for the surrounding area (Perpres Mebidangro No. 62 of 2011). The determination of Medan City as a growth pole also has an impact on surrounding areas such as Sunggal District, Percut Sei Tuan, Old Deli, Tanjung Morawa, Batang Kuis etc. The area grew as a satellite city supporting the growth of the core city (dominatory town).

Batangkuis is one of the sub-districts in Deliserdang Regency. In addition to being an expansion of the function of the activity center, it also functions for housing and settlement development, where part of the area functions as a residential area (Perda RTRW Kab Deliserdang No. 1 of Year 2021). The distance that is not far from Medan City as the center of activity is the main attraction for LIC to settle, while land prices in the sub-district tend to increase due to its location close to Kulanamu Airport and access to the airport (Sharfina, S, 2015). Most families in Batangkuis District are underprivileged families based on data from the Central Statistics Agency (Deli Serdang in Numbers, 2023). In addition, there are also category 1 and category 2 prosperous families which are still classified as LIC. In Batangkuis alone, there are only seven planned housing estates with a total area of 0.858241 km<sup>2</sup>, about 0.02% of the total district area of 40.34 km<sup>2</sup> (Deli Serdang in Figures, 2023). This figure shows the small number of planned housing developments in the sub-district. A study is needed on the development of LIC housing in Batangkuis District so that access to planned livable housing with good facilities and utilities can be reached by low-income communities.

## **RESEARCH METHODS**

This study used both of quantitative and qualitative research methods. Data collection techniques in this study are by distributing questionnaires, in-depth interviews, and literature studies. In terms of housing ownership preferences for Low Income Communities (LIC), the population of this study is all LIC families in Batangkuis District, totaling 16,405 people with income below UMK Deli Serdang Regency Rp.3,400,015.23 according to BPS Deli Serdang data (Deli Serdang Regency In Numbers, 2023) and work in the informal sector.

A simple random sampling technique is used to obtain samples that are directly carried out on the sampling unit. Each sampling unit as an element of a remote population has an equal opportunity to be sampled or to represent the population. This is done when members of the population are considered homogeneous (Margono, 2004). To determine the sample size needed in the simple random sampling method of a population of X used the Slovin formula, as follows Umar (2000).

$$n = \frac{N}{1 + Ne^2}$$

Which are :

n = sample size

N = population size

e = 10% spree allowance due to sampling error

$$n = \frac{16405}{1 + 16.405 (0,1)^2}$$

$$n = 99,39$$

The results of the answers are described by the average value calculated using RII (Relative Important Index) Analysis (Marisa, A & Talarosha, B, 2020) of the respondent's answers for each variable

$$RII = \frac{5(n5) + 4(n4) + 3(n3) + 2(n2) + n1}{5(n1 + n2 + n3 + n4 + n5)} \times 100 \quad (1)$$

Which are :

- RII = Relative Important Index
- n5 = Number of respondents who answered strongly agree
- n4 = Number of respondents who answered agree
- n3 = Number of respondents who answered that they slightly disagree
- n2 = Number of respondents who answered disagree
- n1 = Number of respondents who answered strongly disagree

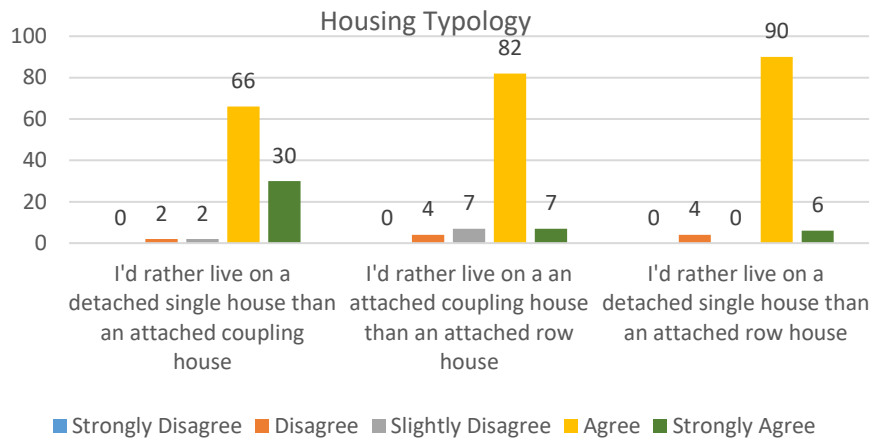
To find out the economic aspects of housing development for Low Income Communities (MBR), researchers used in-depth interview techniques with competent sources. The collected data is then analyzed in a qualitative descriptive manner. Qualitative descriptive analysis is a way of analysis, description and summary of various situation conditions and data collected from interviews or field observations about problems that occur (Winarta, IM, 2006).

## RESULT AND DISCUSSION

### LIC's Preference for Residential Selection

#### Housing Typology

The results of respondents' survey answers related to housing typology are calculated and displayed through bar graphs in the figure below:



**Figure 1.** Housing Typology Preferences Source: Questionnaire Results, Processed by Researchers, 2023

Based on figure 1 above, we can see that the majority of respondents prefer a single detached dwelling typology rather than a site dwelling with coupling and row types. However, when faced with a choice between a type of coupling or a row series the majority still prefer the type of coupling to the row series, although a small percentage of 11 people expressed disagreement because they thought it was the same thing.

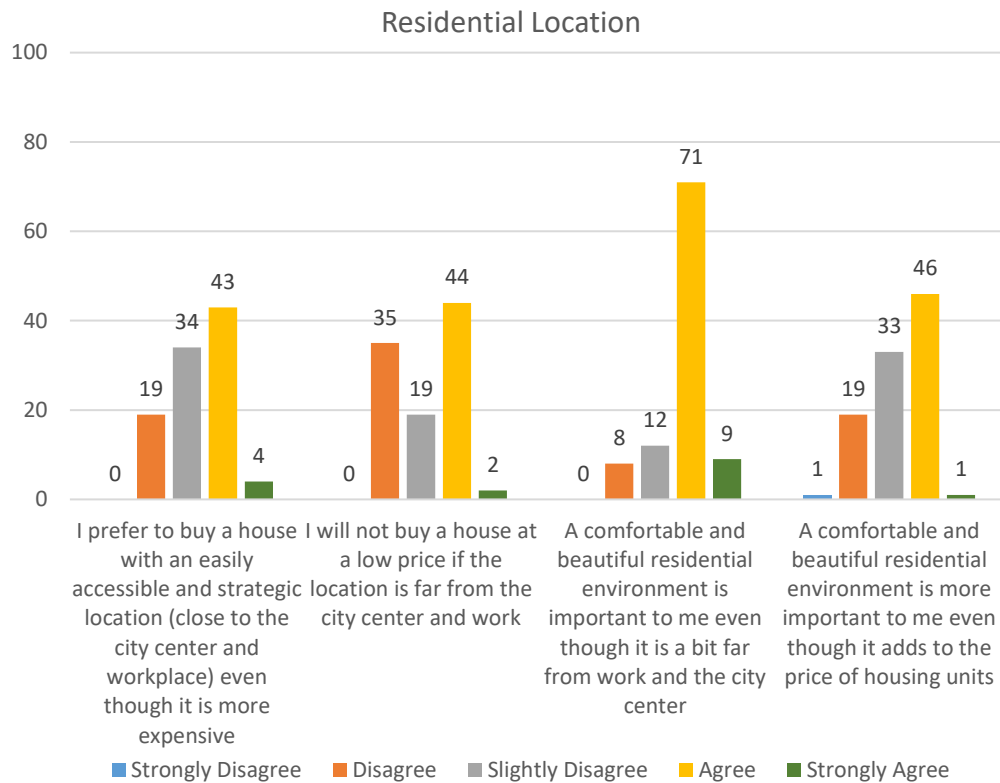
**Table 1.** RII Value of Housing Typology Statement Item

No	Residential Typology	RII Value (%)
1	I'd rather live on a detached single house than an attached coupling house	84,8
2	I'd rather live on a an attached coupling house than an attached row house	78,4
3	I'd rather live on a detached single house than an attached row house	79,6

Table 1 shows the average value of housing typology statement items with the RII (Relative Important Index) calculation method.

**Residential Location**

The results of respondents' survey answers related to residential location show respondents' opinions regarding location versus price factors. A total of 47 respondents chose a location close to the center of activity even though they had to be willing to increase prices, while 53 respondents did not agree if the close location caused price increases. Consistent with the first statement, 46 respondents said they would still choose a location close even if it increased prices. While regarding a comfortable environment, the majority of respondents as many as 80 people prefer a comfortable environment rather than a location close to the center of activity, but if faced with a choice between comfortable environments and prices, there is a change in attitude where only 47 respondents still choose a comfortable environment while 53 respondents again choose the opposite if it has implications for increasing housing unit prices.



**Figure 2.** Residential Location Preferences. Source: Questionnaire Results, Processed by Researchers, 2023

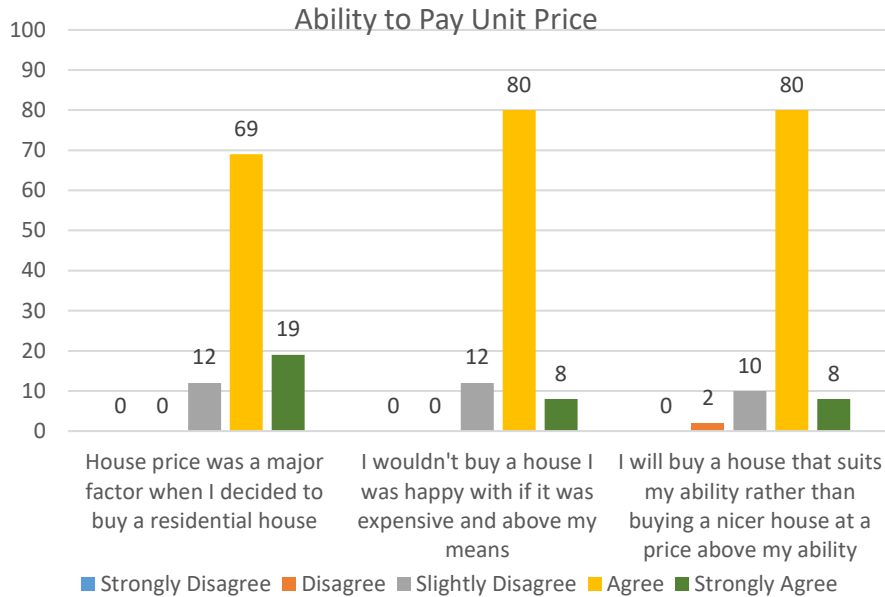
The average value of respondents' answers to statement items related to residential location presented (Table 3) with the RII method shows respondents prioritize the comfort of living rather than price factors and the distance of occupancy to the center of activity. The location factor is the second bigger consideration than price because more than 60% of respondents prefer housing close to the center of activity even though it has implications for price increases.

**Table 2.** RII Value of Residential Location Statement Item

No	Residential Location	RII value (%)
1	I prefer to buy a house with an easily accessible and strategic location (close to the city center and workplace) even though it is more expensive	66.4
2	I will not buy a house at a low price if the location is far from the city center and work	62.6
3	A comfortable and beautiful residential environment is important to me even though it is a bit far from work and the city center	76.2
4	A comfortable and beautiful residential environment is more important to me even though it adds to the price of housing units	65.4

**Ability to pay the unit price**

The results of respondents' survey answers related to the ability to pay unit prices are calculated and displayed through the figure below:



**Figure 3.** Ability to Pay Unit Price. Source: Questionnaire Results, Processed by Researchers, 2023

The results in figure 3 above show that the majority of respondents stated that price is the main factor in residential purchase decisions and the ability to pay for housing prices is a concern in considering the purchase of residential homes. The average value of respondents' answers (Table 4) confirms that the majority of respondents strongly consider price factors according to ability in the decision to buy or choose a housing unit.

**Table 3.** RII Value Item Statement of Ability to Pay Unit Price

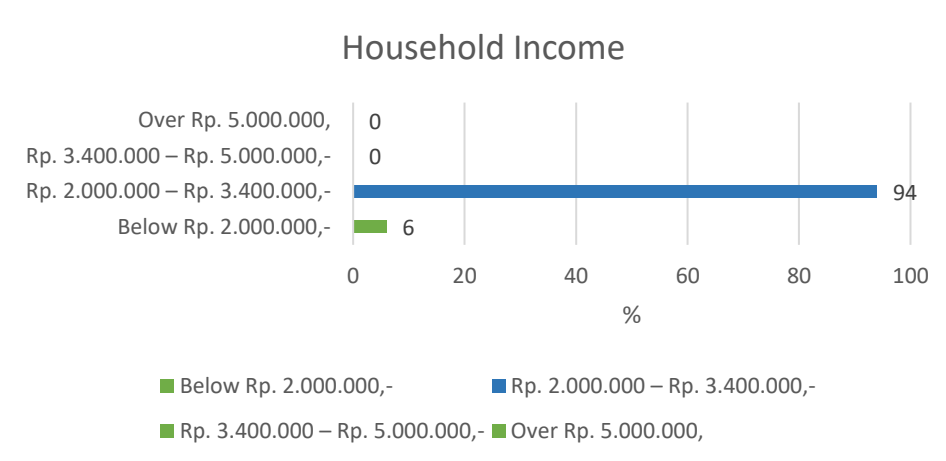
No	Ability to pay the unit price	RII value (%)
1	House price was a major factor when I decided to buy a residential house	81.4
2	I wouldn't buy a house I was happy with if it was expensive and above my means	79.2
3	I will buy a house that suits my ability rather than buying a nicer house at a price above my ability	78.8

**Economic Aspects of LIC Housing Development in Kec. Batang Kuis**

**Household Income and Expenses**

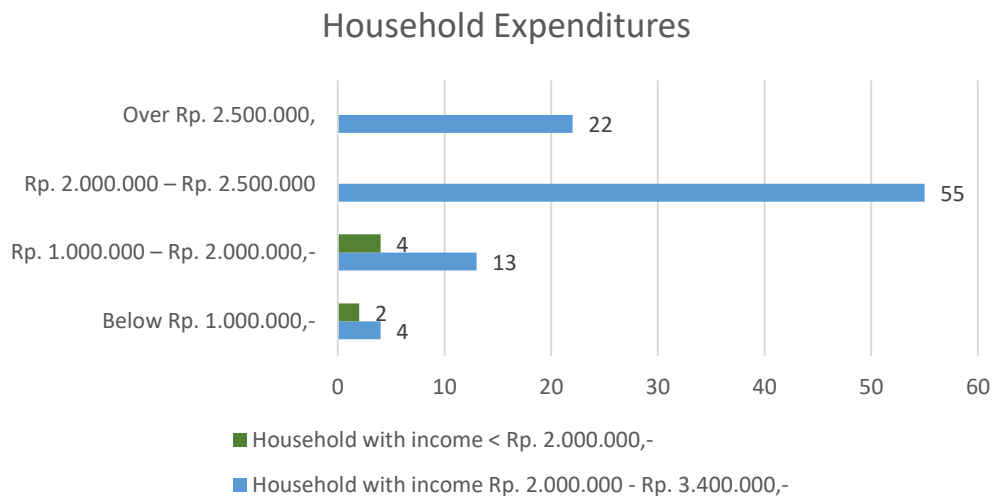
Household income is the income received by the household concerned both from the income of the head of the household and the income of household members. Household income can come from remuneration for factors of labor production (wages and salaries, profits, bonuses, etc.), remuneration of capital services (interest, profit sharing, etc.), and income derived from the provision of other parties (transfers). The results of data processing of the questionnaire answers given can be seen in figure 5.12

below. The graph shows the composition of 94% of respondents earning between Rp. 2,000,000 – Rp. 3,400,000, - and 6% earning below Rp. 2,000,000,-.



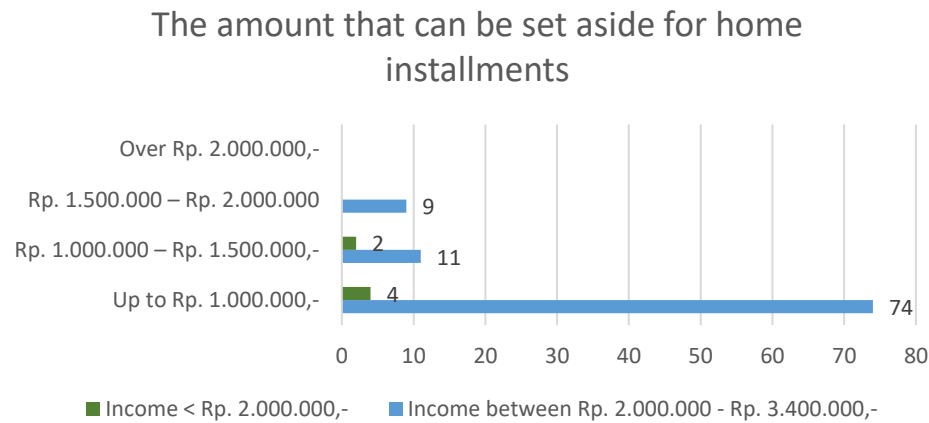
**Figure 4.** Household Income Composition. Source: Questionnaire Results, Processed by Researchers, 2023

While household expenses can be considered as expenditure on goods and services by households for consumption purposes. In this case, households function as end users (final demand) of various types of goods and services available in an economy. The results of data processing of the questionnaire answers given can be seen in figure 5.13 below. The graph shows the composition of 94% of respondents earning between Rp. 2,000,000 – Rp. 3,400,000, - has varied expenses where 22% spend above Rp. 2,500,000,-, 55% spend between Rp. 2,000,000 – Rp. 2,500,000,-, 13% spend between Rp. 1,000,000 – Rp. 2,000,000, - and 4% have expenses below Rp. 1,000,000,-. While 6% who earn below Rp. 2,000,000, - consist of a composition of 4% spending Rp. 1,000,000 – Rp. 2,000,000, and 2% having expenses below Rp. 1,000,000,-.



**Figure 5.** Household Cost Composition. Source: Questionnaire Results, Processed by Researchers, 2023

From the results of the questionnaire answers, it was found that respondents' willingness to allocate costs for house installments was quite diverse. The results of data processing of the questionnaire answers given can be seen in figure 5.14 below. The graph shows that 94% of respondents earn between Rp. 2,000,000 – Rp. 3,400,000, - the majority of respondents (74%) are willing to allocate only up to Rp. 1,000,000,- , 11% allocate between Rp. 1,000,000 – Rp. 1,500,000, - and 9% are willing to allocate between Rp. 1,500,000 – Rp. 2,000,000,-.



**Figure 6.** The Composition of Value That Can Be Set Aside for House Installments. Source: Questionnaire Results, Processed by Researchers, 2023

**Land prices and land financing**

The actual price of land in Batang Kuis sub-district according to information from land appraisal consultants based on several projects they carry out varies considerably, depending on location, accessibility to location, topography and land coverage. Generally, the greater the area owned by a parcel of land, the average value of land prices tends to decrease. For land that is right on the edge of the sub-district access road that is paved and has good accessibility, the price ranges from Rp. 1,000,000 – Rp. 2,000,000,-/m2, with the form of legality of the Subdistrict Certificate (SK Camat), SHGB and SHM. The higher the degree of legality of ownership, the higher the price offered. For land locations that are not directly adjacent to major roads, it is offered at Rp. 700,000 – Rp. 800,000,-/m2. As for the larger land unit located indirectly on the roadside and still in raw condition is in the price range of Rp. 250,000 – Rp. 350,000,-/m2. For more details, the classification of land prices can be seen in table 5.11 below.

**Table 4.** Land Price Classification in Batangkuis Sub-districts

No	Land	Land Price (m2)	Accessibility	Land Coverage Conditions	Legality
1	Small, residential lot units or shops	IDR 1.000.000 to IDR 2.000.000,-	Well, laid off the paved road, sub-district road access	Built Up/Vacant Land/Ready to Build	SKC, SHGB and SHM
2	Small, residential lot units	IDR 700,000 to 800,000,- /m2	Good enough, on the side of the road alley or	Built Up/Vacant Land/Ready to Build	SHM



**Table 4.** Land Price Classification in Batangkuis Sub-districts

No	Land	Land Price (m2)	Accessibility	Land Coverage Conditions	Legality
			neighborhood's paved road		
3	Small, residential lot units	IDR 300,000 to 400,000,- /m2	Good enough, on the side of the road alley or neighborhood's paved road	Built Up/Vacant Land/Ready to Build	SKC
4	Large Area, Settlement Units	IDR 50,000 to 100,000,- /m2	Not good, have to open access road	Raw Land, need for land development	HGU, ex HGU
5	Large Area, Settlement Units	IDR 250.000 to 350.000,-	Not good, have to open access road	Raw Land, need for land development	SKC

Source: Interview results, processed by researchers

For the development of LIC residential areas, developers look for land prices in the range of Rp. 250,000 – Rp. 350,000/m<sup>2</sup> so that it is still feasible to do economically where there is still a margin applied by the developer.

#### Land financing

For housing land financing consists of land purchase costs and land development costs. Land development is in the form of land maturation process (clearing and hoarding) and preparation of land site plan into KSB (Ready to Build Plot). In site plan planning, developers must provide at least 40% of the land area for public facilities and social facilities. Public facilities usually consist of road networks, drainage, electricity, clean water and complex fences, while social facilities usually consist of houses of worship or sometimes added with community meeting halls. From the results of interviews with developers, the cost of land development per m<sup>2</sup> can be seen in the table below:

**Table 5.** Land Development Financing in Batang Kuis sub-district

No	Description	Financing (Rp/m2)	Information
1	Land Purchase	IDR 300.000,-	Base price Rp. 300.000/m <sup>2</sup>
2	Land Maturation (Cleaning, Landfilling, etc)	IDR 100.000,-	
3	Increase in Plot unit prices due to a 40% reduction in public and social facilities	1,67 x (Buy Price+Land Maturation)	Only 60% of Area can be used as Plot Units
4	Increased Legality from SKC to SHGB	IDR 10,000	Official fees + handling services

Source: Interview Results, Processed by Researchers

Financing for land can be calculated at 1.67 x (Rp. 300,000 + Rp. 100,000 + Rp. 10,000) = Rp. 684,700/m<sup>2</sup>. The minimum plot size according to the regulations is 72 m<sup>2</sup> assuming plot width of 6 meters, front set back line (GSB) 4 meters, rear set back 2 meters. So that the price per unit of house plots is Rp. 684,700 x 72 m<sup>2</sup> = Rp. 49,298,400,-.

### **Availability of Financing Institution Facilities**

The availability of financing institutions for LIC housing, especially for Batang Kuis District, is quite good. The entire entities of National Banks incorporated in Himbara (Association of State-Owned Banks) plus private banks, both conventional and sharia, participated in financing the development of LIC housing through the FLPP scheme both because of assignments and business considerations because Batangkuis District is an area that has a high demand for housing because of its location close to Medan City as a regional growth center.

For installment schemes through FLPP scheme facilities provided by the government for subsidized low-cost home financing, the cheapest installment tenor is in 20 years with 5% annuity interest with the provision of Down Payment of 1% of the house price and additional SBUM (Down Payment Assistance Subsidy) of Rp. 4,000,000,-. For a tenor of 20 years, monthly installments are IDR. 1,032,039,-. This figure is still above the ability of the LIC Batangkuis community who want monthly installments below IDR. 1,000,000,-. Around 74% of respondents stated that they were only willing and able to pay installments of up to IDR. 1,000,000,-. The requirements to get an installment facility must also be met regarding the maximum age limit of the debtor, where the maximum installment must be paid off at the age of 65 years. In addition, the debtor himself must have income where at least one-third of the income meets the amount of monthly installments after deducting monthly obligations or debts in other parties. According to the interview results, the bank will consider through a credit risk analysis if the prospective debtor's income is above Rp. 3,500,000 per month in order to avoid the risk of bad debts.

The results of the questionnaire survey obtained by all respondents have a maximum income of up to Rp. 3,400,000, - so they do not pass the above criteria to be considered as prospective debtors. This problem causes access to cheap houses subsidized by LIC in Batangkuis District to be carried out more by people outside Batang Kuis.

### **Housing Prices and LIC Housing Construction Costs**

#### **LIC Housing Price**

The Ministry of Public Works and Public Housing (PUPR) has officially set a limit on the selling price of subsidized houses for landed houses in 2023-2024. This regulation is contained in PUPR Ministerial Decree Number 689/KPTS/M/2023 concerning Limits on Land Area, Floor Area, and Limits on Selling Prices of Public House Sites in the Implementation of Housing Loans/Financing, Housing Financing Liquidity Facilities, and the Amount of Housing Down Payment Assistance Subsidies signed by PUPR Minister Basuki Hadimuljono dated June 23, 2022. The selling price in 2023 is IDR 162 million for Java and Sumatra except (Riau Islands, Bangka Belitung, and Mentawai Islands). This PUPR Decree is a follow-up to the Regulation of the Minister of Finance (PMK) of the Republic of Indonesia Number 60 of Year 2023 concerning Restrictions on Public Houses, Boro Lodges, Student and Student Dormitories, and Workers' Houses Exempt from the Imposition of Value Added Tax. The increase in the selling price of public housing sites has taken into account the increase in the price of building materials and land, as well as the affordability of low-income people. This decision is the maximum price for the sale of subsidized houses with a maximum area of 36 m<sup>2</sup>, and is binding on all financing institutions and subsidized house developers (Resource: Rizal, Head of Consumer Loan BTN KC. Medan)

#### **LIC House Construction Cost**

The cost of LIC housing construction itself consists of the physical cost of construction of housing tread units equipped with other public facilities and infrastructure such as roads, draenase, electricity networks, clean water, green open spaces, and social facilities such as houses of worship, as well as non-construction costs required so that the housing can be sold in collaboration with banks with the FLPP scheme. The cost of non-construction costs consists of permits and taxes related to the legality of land and buildings as well as service fees for notaries as service providers. From the results of interviews

with the developer, it can be described the financing per hectare of residential environment units in table 6 below:

**Table 6.** LIC House Unit Construction Financing  
in Batangkuis sub-district

No	Financing Description	Financing (Rp/unit)	Information	Charging Fees To
1	House Building Construction	IDR 62.000.000 to IDR 65.000.000,-		Developer
2	Public Facilities (Roads, Drainage, Electric Networks, clean water network, Green Open Space) and social facilities (Houses of Worship, meeting places, complex fences)	IDR 15,000,000		Developer
3	Cost/ Legal Administration Fees			
	• Down Payment	IDR 1.620.000,-	1% x Selling Price	User/Consumen
	• Down Payment Assistance (SBUM) Subsidy	IDR 4.000.000,-	Government Policy	Government
	• Appaisal	IDR 150.000,-	Consultant	User/Consumen
	• BN Duty (Balik Nama), AJB, PNBPN, check fee, validation	IDR 3.500.000,-	Notary	User/Consumen
	• BPHTB	IDR 5.100.000,-	5% x (Sell Price- IDR 60.000.000,-)	User/Consumen
	• PPH	IDR 1.620.000,	1% x Selling Price	Developer
	• Provision	Rp.781.900,-	0.5% x Loan Value	User/Consumen
	• Notary Fee	IDR 500.000,-	Notary	User/Consumen
	• Deed of Granting Rights (APHT)	IDR 2,650,000	Notary	User/Consumen
	• Increased SHGB rights to SHM	IDR 1,000,000		User/Consumen
	• PBG/ Building Permit	IDR 1.000.000,-	(Doc: KRK, PKKPR, Environmental Documents, Architectural and Construction Planning, Retribution and PBG)	Developer

Source : Interview Results, Processed by Researchers

From the table above, it can be seen that the components of housing construction costs borne by developers consist of physical construction costs (housing units and infrastructure) and non-physical costs (PPH and PBG). For per LIC housing unit, the developer spends around Rp. 79,620,000, - excluding the cost of land and development.

In general, the cost of building LIC housing units can be calculated from the sum of land development costs per lot unit plus house construction costs per unit = IDR 49,298,400 + IDR 79,620,000 = IDR 128,918,400. Of this amount, there is a margin difference of Rp. 162,000,000 – Rp. 128,918,400 = Rp. 33,081,600,-, or around 25.66% of the capital price. The profit is still gross, because it is still minus marketing costs and company management costs. However, economically this profit is still quite attractive for developers and potential for further development in Batang Kuis District. From the consumer side, the total cost incurred to be able to bind the house sale and purchase agreement is IDR. 12,651,900, - including Down Payment 1%. This is quite burdensome for LIC consumers because they must be paid upfront in cash in order to own a house. On the other hand, respondents stated that ease of financing is important in owning a residential house, this ease of financing is also included in terms of upfront payments which they think are burdensome.

## **CONCLUSION**

The preference of Low Income People (LIC) in Batangkuis District related to housing selection consists of single-site typology houses that are strongly influenced by price factors, where price demand is below two hundred million rupiah. The housing must also be strategically located, easy to reach and close to the center of activity, have a convenient environment, have an interesting design that is not an option if it affects price increases, have good building quality, and be equipped with good settlement facilities and infrastructure (roads, drainage, electricity, clean water, and others). In addition, the ease of financing factor, both monthly installment financing and initial financing with an affordable value.

The development of Low Income Community Housing (LIC) in Batangkuis District from an economic aspect can be seen from two sides, namely from the developer's point of view and from the LIC consumer's point of view. In terms of developers who provide supply, land prices and land financing along with construction costs as well as permits and other legalities are still promising, the potential for a fairly good profit is still obtained when compared to the selling price set by the government. Coupled with the availability of banking financing institutions that help facilitate in terms of financing making it easier for them to do marketing. On the other hand, from the review of LIC consumers in Batangkuis District, the availability of financing institutions does not affect them because of the gap between the concept of financing and their economic capabilities. Number of monthly installments and initial financing make them unable to access subsidized LIC housing developed in Batang Kuis District.

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