



The Contribution of Rental Flat in a Buffer Regency of a Metropolitan City for Occupants

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Abstract

A public rental flat has been built in a Kendal Regency near Semarang City to improve a kampong that seemingly has a deteriorated condition. This study analyzes the contribution of rental flats development to occupants. The research method uses a short longitudinal study. The surveys were in 2017 and January 2020. The research analysis through quantitative and qualitative data, with a questionnaire in nonprobability sampling technique to 120 occupants in 2017, surveyed all of the 120 occupants if they remain to live in the flat in 2020, which only 15 still live in the flat. Qualitative data of interviews with occupants also support the data. The results show that the occupants increased expenses, and the occupants tended to decrease income. However, the occupants benefit from living in the rental flat, including the flat's ability to support their economic activity in-home industry or home-based enterprises.

Disciplinary: Architectural Science, Poverty Study (Poverty Alleviation).

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1 Introduction

In recent years, the Indonesian government has carried out many development activities. This development aims to improve community welfare. Unfortunately, that development can still not meet the needs of all levels of society. It has led to development inequality which has increased population density. Increased population impacts the need for housing then related to the need for land. The need for land continues to increase, which causes land prices to be higher than before

(Tipple, 2015). High land prices force people with low-income to build slums as their homes. Thus, an increase in population causes problems in housing availability (Ong & Lenard, 2002), especially for low-income people.

Houses are one of the primary needs of human beings. In Indonesia, acknowledgment of human rights for a house is in the Constitution of the Republic of Indonesia (commonly called "UUD 1945") article 28 H clause (1). It states that "every person has a right to live properly physically and mentally, has a house, and has a good and healthy living environment and health services." This acclamation is strengthened by a Constitutional Act Number 1, 2011 about Housing Complex article 5 clause (1) that states, "The country is responsible for the existence of housing and settlement area for people, and the government does the construction." Thus, it is clear that the government has a responsibility to facilitate the procurement of houses for the benefit of the Indonesian people.

Poverty is a significant cause of housing problems (Mahmood and Hussain, 2020). Poverty alleviation is carried out through a program to improve housing conditions for low-income people (McDonald, 2015). In developing countries like Indonesia, this program can reduce the dependence of low-income people on informal housing. Through their 100% drinking water accessibility, 0% slum areas, 100% proper sanitation accessibility program, the government is building Public rental flats to increase housing quality and reduce and even diminish slum areas. One of them is Kebondalem Rental Flats, the first Public rental flat built in Kendal as a buffer regency for the metropolitan city of Semarang to provide decent housing for people with low income who previously lived in the slums of the Reyeng river bank.

Generally, Indonesian people prefer to live in landed houses (Swasto, 2018). However, the economic pressure does not allow them to live elsewhere legally apart from the flat. Ironically, life in flats changes their lives. Some of these effects are changes in the distance from home to work, rent payments, and the prohibition of using flats as workplaces or warehouses as stated in Minister of Housing Decree No. 12/PERMEN/M/2007 concerning the management of Public Rented Flat article 21. This condition can impact the socio-economic conditions of occupants, such as changes in household expenses, including food budget, transportation costs for work, health expenses and savings in emergencies, and other opportunities, such as opportunities to get higher education and opportunities to start small enterprises. These challenges are related to decreasing income and residents' overall quality of life (Drew, in Anacker, 2019). Part of micro and small enterprises are home-based enterprises that increase income (Sianturi et al., 2019; Tyas, 2009).

How the flat contribute to providing housing for occupants who live nearby, a metropolitan city is attractive. This study aims to identify how the socio-economic conditions of the occupants of Kebondalem Rental Flat before-after moving in, particularly income. Thus, it provides a basis for understanding how Kebondalem Rental Flat can affect the socio-economic conditions of occupants.

2 Literature Review

The problem of housing affordability is currently happening in many cities (Saidu & Yeom, 2020). Housing is a primary need for the community (Doxiadis, 1968; Turner, 1976). Income is one factor that determines housing affordability (Li et al., 2017). With the increasing demand for housing due to population growth, inadequate immigration, and government programs, housing affordability can be a big problem for some people, especially low-income people (Morduch & Schneider, 2017). That way, people with low incomes will have difficulty reaching formal housing. The inability to buy a formal house forces low-income people to live in a parent's house, rent a cheap house, or build a house of their capacity, with only capital loans without interest from friends or relatives. (Handayani, 2004; Sunarti et al., 2019).

Housing affordability is difficult to overcome because of several issues such as difficulties in reducing household expenditure, difficulty in increasing household income, and the alignment of household expenditure and income which continues to increase over time (Anacker, 2019). Therefore, the problem of housing affordability needs to be resolved immediately. Delays in resolving housing affordability problems can result in several cases (Anacker & Carr, 2011; Rajan, 2010). Including an increase in social problems such as eviction (Desmond, 2016), suicide (Fowler et al., 2015), crime (Ellen & Laco, 2015), health crises, and a poor living environment (Currie & Tekin, 2015).

Therefore, to solve housing affordability in Indonesia, a flat rental public is intended for low-income people. The provision of public rental flats required sustainable housing. According to Egmond & Mensah (2011), sustainable housing includes a housing that will sustainably provide economic prosperity, environmental quality, and social balance to improve the welfare of its inhabitants. In looking at the contribution of a rental flat in a buffer regency of a metropolitan city to increase income for occupants.

2.1 Public Rental Flat

In many other countries, the concept of a public rental flat is similar to social housing. Various studies on social housing have been carried out in various parts of the world (Bah et al., 2018; Gowan & Cooper, 2019; Scanlon et al., 2014; Whitehead & Tang, 2019). In the Netherlands, according to Priemus (2013), social housing is meant as a place to accommodate low-income households, physically and mentally disabled, ethnic minorities, immigrants, and asylum seekers. Scanlon et al. (2014) added that the criteria for social housing are marked by government subsidies and rental prices below market prices. Likewise, social housing in the UK and Italy is often referred to as affordable housing, allocated based on needs and managed by the Government (Czischke & van Bortel, 2018; Yates, 2013). In some countries, it can be seen that there is a strong relationship between the provision of housing to promote the economic and social community (Priemus et al., 1999).

In Indonesia, social housing is known as a public rental flat. The definition of a public rental flat from the Minister's Decree for Public Housing Number 14/PERMEN/M/2007 about Public Rental Flat Managerial is building many stories with divided parts vertically and horizontally structured based on functions used individually. Hence, the status of the property, renting, and the government manages building as a living space for people.

Generally, minimum housing requirements are set and explained in each country or region (Rowley et al., 2017) because the standard of housing needs in each country can be different, referring to conditions, suitability, or ability based on the income of occupants (Lawson et al., 2018). However, in providing public rental flats, it is also necessary to pay attention to the service needs of residents. These services include infrastructure, utilities, social facilities, and public facilities that suit the needs of the number of occupants (Kuswartojo, 2010). Therefore, the existence of services in this public rental flat plays a role in supporting the needs of its occupants in various aspects (Yuliasuti et al., 2018).

In essence, public rental flats can reduce social inequality in two ways (Santika et al., 2019). First, residents can utilize their income for other needs by providing redistributive effects resulting from rental costs that tend to be below. Second, it can improve the quality of life through its potential to improve efficiency in terms of job creation. One of them is integrating a home-based company with a public rental flat intended for low-income people (Aduwo et al., 2013). This effort is a survival innovation strategy for low-income people by creating a home-based company in the public rental flat area (Kellett & Tipple, 2000).

2.2 People with Low Income

According to the Act Number 1/2011 about Public Housing (article 1 clause 24) and Minister's Decree Number 20/PRT/2014 about the Facility of Housing Financial Liquidity in Owning a House through Instalments/Financing Proper Housing for People with Low Income, low-income people is limited expenditure. According to Kendal's Bupati Regulation Number, 34/2014 about Affordable Rented Flats' Managerial in Kendal Area, people who are entitled to these government's supports are those who have a maximum of three times the Minimum Regional Wage.

The building of public rental flats for people with low income can be successful if it can improve their quality of life without increasing expenses. According to Budihardjo (2009), building affordable housing needs a survey. The input factors can be cheap and efficient, not cheap because of subsidies, and the operational cost is expensive and not efficient. According to the Brief Summary for UNESCAP & UN-HABITAT (2008), which UNESCAP published, low-income families' priorities when looking for a house are location, workspace, supporting community system, and affordable costs. Yudohusodo (1991) added several aspects that need attention according to the economic sector in building affordable rented flats for low-income people: close to working space or market to buy their daily needs. So, their living costs and income after living in the flats are essential.

The human need for housing does not merely cover the need for buildings and their contents in the socio-cultural context (Walker, 2001). Moreover, Jaiyeoba & Aklanoglu (2012) explained that housing must improve the welfare of its inhabitants physically, psychologically, and socially. Socio-economic means relating to or concerned with the interaction of social and economic factors. According to Soekanto & Sulistyowati (2017), social layering can be put into three classes: economics, politics, and those categorized based on specific roles in society. Then Soekanto & Sulistyowati (2017) also stated that measurements to categorize people are wealth, power, honor, and knowledge. This economic differentiation is the beginning of different points of view toward someone's socio-economic. Syani (2007) defined someone's socio-economic status by economic activities, income, education, type of house, and roles in the organization.

2.3 Case Study

The location of Kendal Regency is close to Semarang City as the Capital of Central Java Province. Semarang is a service, trade, industrial, and tourism city. Adjacent to Semarang makes Kendal Regency a buffer city for the metropolitan city of Semarang, which has 1.8 million inhabitants. The location of Kebondalem Public Rental Flats is on Jalan Stadion Baru Kendal Regency (Figure 1). Kendal Regency consists of 20 districts, and Kota Kendal is the capital of Kendal Regency and the center of government and economy. Kebondalem is one of the densest districts in the Kendal Regency (Figure 2).

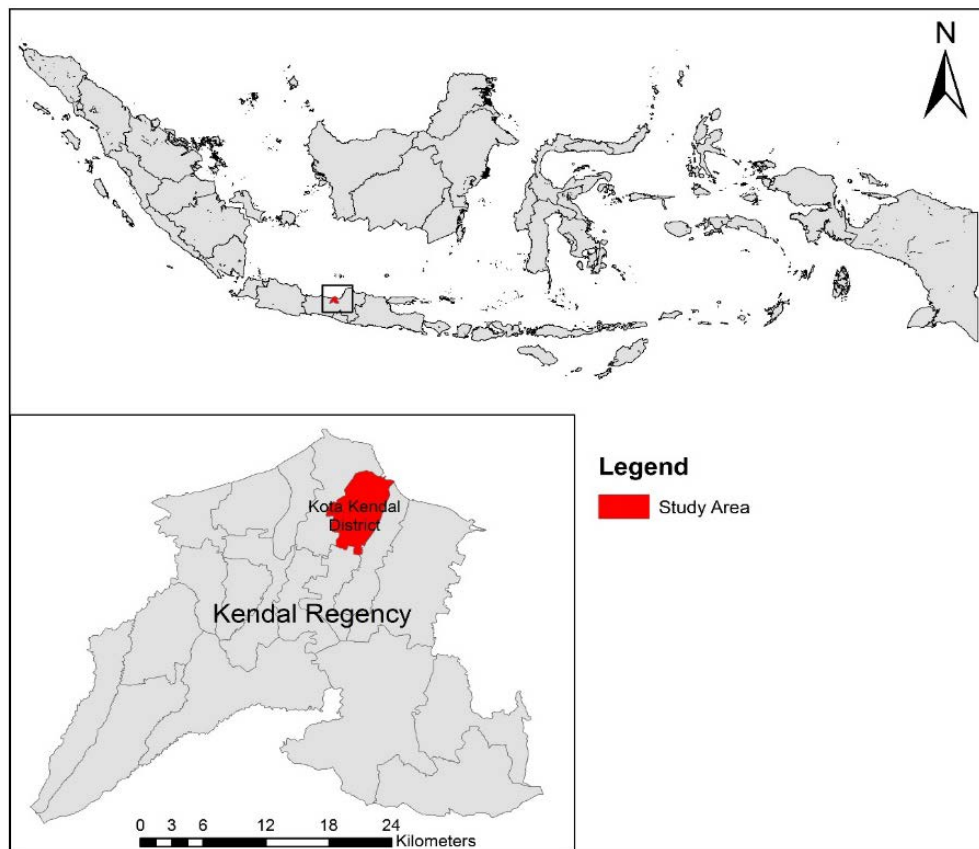


Figure 1: The Study Area

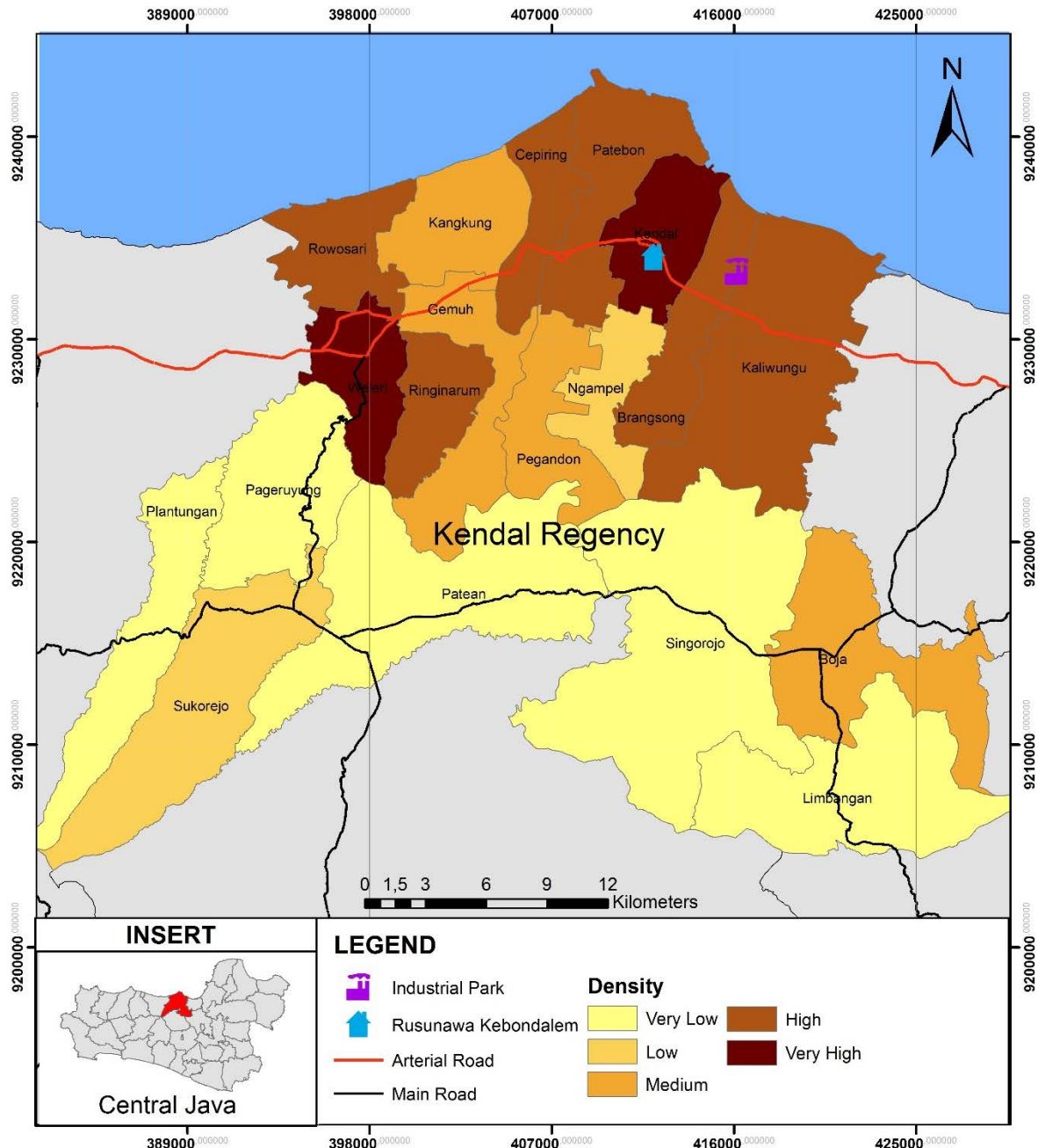


Figure 2: Kendal Population Density and the Kebondalem Rental Flat Location

A public rental flat has been built in a Kendal Regency near Semarang City to improve a kampong that seemingly has a deteriorated condition. It was the first flat built in Kendal to provide proper housing for low-income people who used it to live in the slump area of Reyeng riverside, close to the Kebondalem flat. However, their moving to the flats did not instantaneously change their life since the change of the housing characteristics from horizontal to vertical brought some effects.

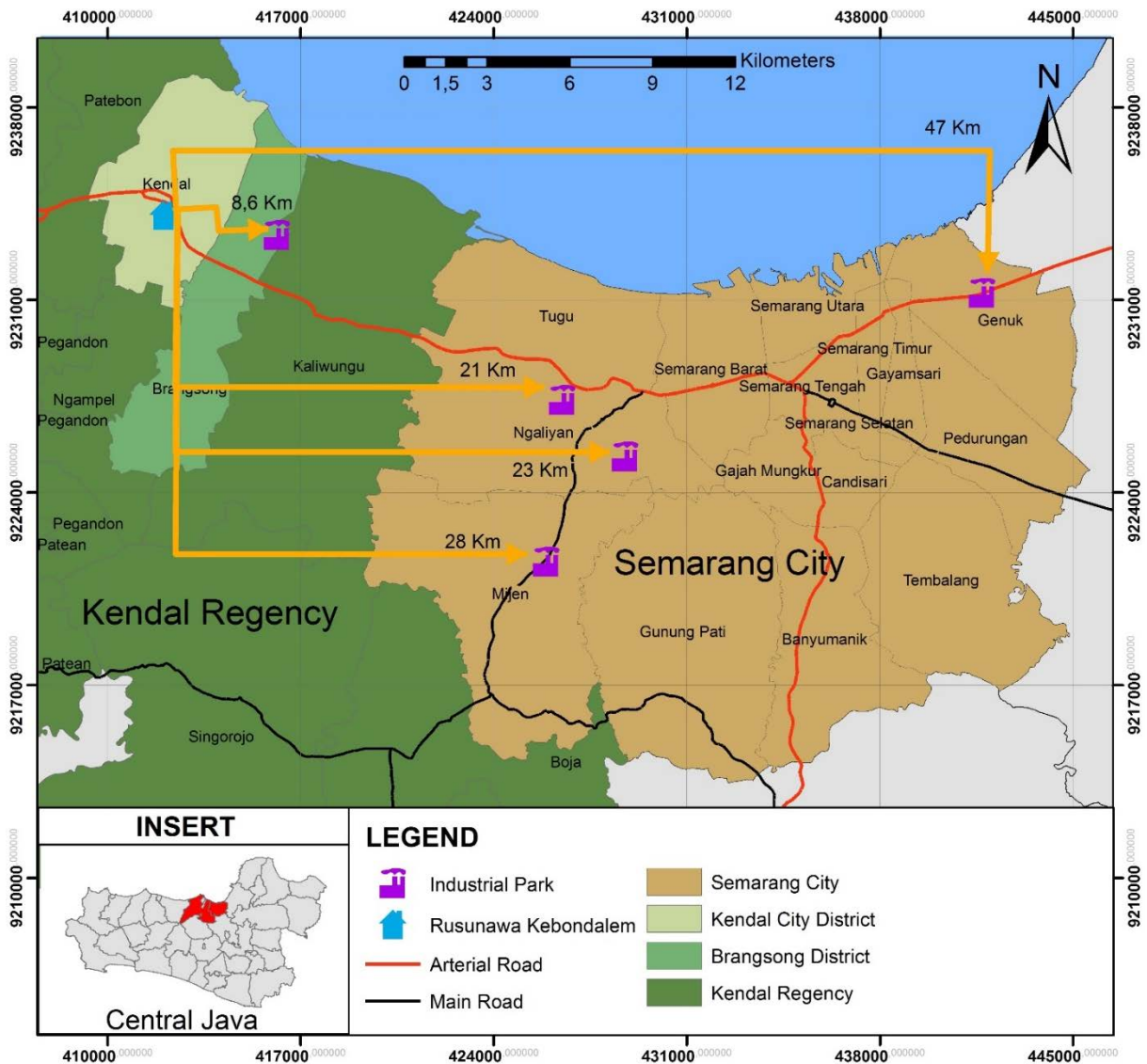


Figure 3: Location of Kebondalem Rental Flats Location to Semarang City

Figure 3 depicts the Kebondalem rental flat location relatively close to Industrial Park in Kendal Regency. Kendal Industrial Park is in development and has not started operating yet, so the rental flat is not used for industrial workers. On the other hand, the distance of the Kebondalem Rental Flat is far from the Industrial park in Semarang City, which is more than 20 kilometers, so the Kebondalem rental flat is not used by the industrial workers in Semarang City.

The flat building is on 8.800 m² area belongs to the Local Government of Kendal. District Kebondalem Rental Flats has 196 flat units (Figure 4). All flats are of the same type; Type 24 (24 m²). Flat units on the ground floor are for the disabled with limited mobility. The building has two units of twin blocks (Block A and B). Every unit consists of: the ground floor consists of the standard room, two security bedrooms, prayer room, recreation room, Genset room, panel room, parking area for motorcycles, commercial area, janitor room, garbage shaft room, and park area. The first to fourth room consists of 24 flat units type 24, janitor room, shaft panel, standard room, and roof floor for the water tank.



Courtesy of Ministry of Public Work and Public Housing, Indonesia

Figure 4: Kebondalem Rental Flat

3 Method

This research conducted two surveys in 2017 and at the beginning of 2020. In 2017 observations were made using quantitative methods and supported by qualitative data. The quantitative approach provides a general overview of the existing conditions by collecting, processing, and analyzing data in sequence (Sugiyono, 2012). The quantitative data is procured through questionnaires for 120 occupants from blocks A and B. This research sampling uses a 5% error degree, which means it has 95% accuracy towards the population.

Furthermore, it used a sampling technique called the non-probability sampling technique through random sampling. It is a sampling technique that does not give the same chances for every aspect or member of the population to be chosen. This technique is used to measure the change of socio-economic conditions of individuals. Moreover, the supporting qualitative data are taken from interviews with seven public rental flat managerial staff, using a purposive sampling technique. Thus, the qualitative method understands methodological traditions in examining specific problem cases (Creswell, 1998).

In 2020, the research was conducted again using the same approach to see the socio-economic changes of respondents in 2017. Only 15 out of 120 families still lived in Kebondalem rental flats in 2020. Then, these 15 resident families are subsequently determined as respondents and given more questionnaires about changes in socio-economic conditions. The cause of the change will be found through interviews. Later, information obtained through field observations and interviews will be reconstructed and synthesized in the results of this study (Yin, 2009).

4 Result and Discussion

In the rental flat social system, there is no community association. The cause is the frequent change of occupants. Communication between occupants and managers is done directly or individually, not through representatives of their citizens, and vice versa. Even so, the community

norms enforced by occupants are still strong-bounding. It helps reduce the occurrence of violations of social norms in the environment of the flat.

The difference between living in a landed house and a flat is the rules that bind the occupants. They are required to comply with regulations. The occupants pay the bills for flat rental, water, electricity, and garbage services every month. Lateness in payment costs 2 % of the flat rental cost. However, there is no fine for other bills. Lateness in payment for three consecutive months will cause the water and electricity to be stopped for a whole week. Moreover, the contract is canceled after that, and the flat unit will be available for a new occupant if the previous occupant is still unable to pay.

The regulation does not allow housing in Public rental flats to be used as a business location because, by design, the government has separated the function of residential and commercial areas. Therefore, the design of the housing unit's area cannot support the function as a business location. The ground floor is for a commercial zone for residents who intend to open a business with additional rental fees outside the cost of residential rent. However, due to constraints in developing commercial areas, 26% of occupants use their dwellings as small enterprises, such as opening a small shop. The dwelling condition, arranged and tightly guarded by security officers, causes limited business access to serve the outside community. As a result, the business undertaken cannot develop, and there is also a decline in income.

From questionnaires 2017 data, people with a low-income move to the public rental flat mainly because of their effort to be independent). They do not live in the flats because of the flats' physical condition, location, or economic factor, yet they live there to look for comfort, quiet, and peace from having their own living space. Their previous living spaces are relatively worse than the rental flat since 33% of 120 respondents stated that previous houses' material was non-permanent materials, and 12% of the respondents did not have tiles on their floor. Even 3% of respondents did not have toilets.

Table 1: Income of Kebondalem Kendal Public Rental Flats Occupants

No	Room	Home-Based Enterprise	Income (Rp)		
			2019	2017	Before
1	A1-02	Grocery	1.000.000	1.000.000	1.000.000
2	A2-21	No	7.000.000	7.000.000	4.000.000
3	A3-19	Culinary	2.500.000	3.500.000	1.700.000
4	A4-09	No	650.000	400.000	800.000
5	A4-12	Grocery	2.000.000	1.500.000	1.500.000
6	A4-13	No	2.000.000	2.100.000	2.100.000
7	A5-01	Stop Selling	2.500.000	3.000.000	3.000.000
8	B2-23	Grocery	1.500.000	3.000.000	4.000.000
9	B3-03	No	4.500.000	3.000.000	3.000.000
10	B3-20	Stop Selling	1.500.000	1.250.000	1.250.000
11	B4-05	No	2.750.000	2.750.000	2.750.000
12	B4-12	No	1.850.000	1.500.000	2.000.000
13	B5-03	No	1.500.000	1.100.000	1.100.000
14	B5-07	No	5.000.000	5.000.000	5.000.000
15	B5-21	No	3.000.000	5.000.000	5.000.000

Based on the survey results of economic conditions in 2019, 12 out of 15 occupants experienced changes in income. The income that becomes the data in this study is income from 1 family consisting of a father, mother, and child. The highest income of the current occupants is Rp. 7,000,000, while the lowest income is Rp. 400,000. However, there was a slight difference before the occupants moved to the public rental flat, where the lowest income was higher, namely Rp. 800,000 (Table 1).

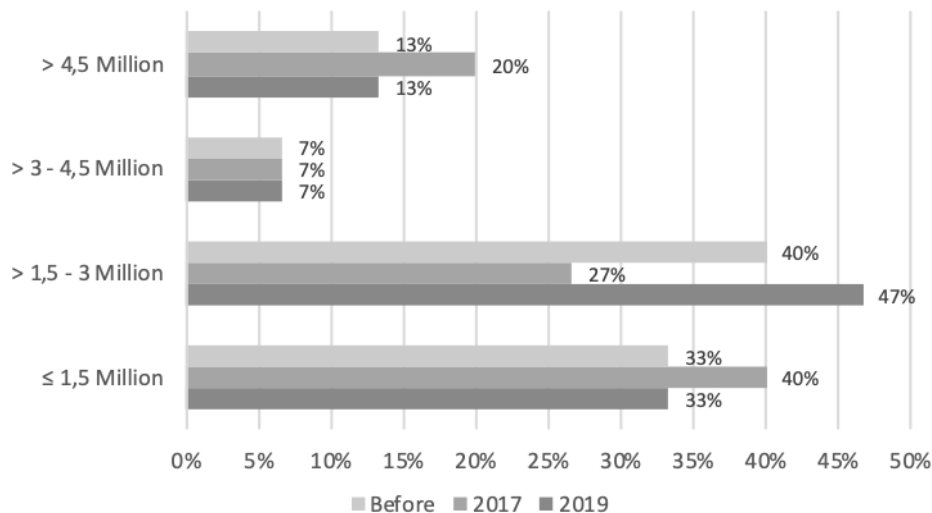


Figure 5: The Average Income of occupants of Kebondalem Rental Flats

Between the period before moving, in 2017 and 2019, there is a variation of average income for the 15 occupants (Figure 5). There are various reasons for changes in occupant income. Some occupants revealed that the change was the addition of family members, such as children who married and lived in the same flat. As a result, the number of working family members increased, causing an increase in family income. Oppositely, divorce can cause a reduction in family income due to the reduction of income sources. Also, there is any other reason of age factor that affect an increase or decrease in the productivity of family member. In addition, changes in the work of the heads of families are also one of the causes of declining incomes.

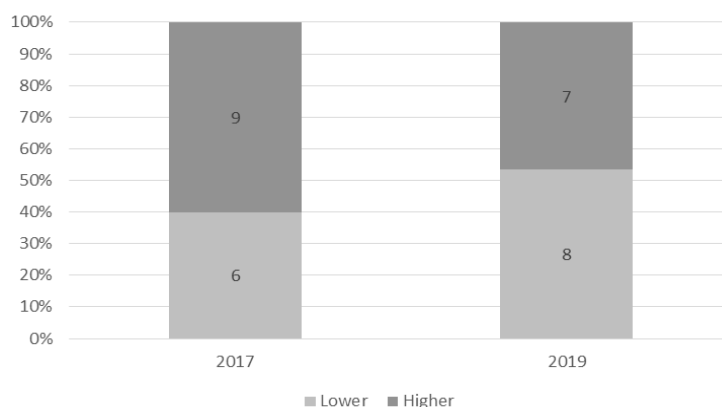


Figure 6: Comparison of Occupants' Income with Kendal Minimum Wages in 2017 and 2019

Figure 6 shows that occupant income is relatively better in 2017 compared to 2019 when viewed based on the Kendal Regency regional minimum wage standard. In 2017 there were only six occupants whose income was below the Kendal regional minimum wage. Unlike in 2019, the number of occupants' income below the regional minimum wage increased to eight. Likewise, the number of occupants having income above the minimum wage is even more in 2017 than in 2019.

Table 2: Comparison of New Occupants' Income between 2019 and Before Moving to Rental Flat

No	Room	Income (Rp)	
		2019	Before
1	A1-01	1.000.000	1.500.000
2	A2-03	9.000.000	Rp15.000.000
3	A2-06	2.700.000	2.700.000
4	A3-10	1.500.000	2.000.000
5	A3-17	2.000.000	2.000.000
6	A3-18	3.000.000	3.000.000
7	B2-24	1.500.000	2.000.000
8	B4-15	2.500.000	2.000.000
9	B5-10	800.000	2.700.000
10	B5-15	1.000.000	1.500.000

According to the questionnaire to new occupants, generally after living in a public rental flat, the economic condition decreased (Table 2). It shows no difference in conditions between new occupants and old occupants. The various reasons mentioned above lie behind their income decrease, including the limitations of occupants in developing their home-based enterprises. The UNESCAP & UN-HABITAT (2008) publication stated that one of the factors needed by a housing complex for the poor is a place for work and affordable costs. However, these things are denied for the public rental flat since they cannot make their living space into a working space, and their living cost is higher than before. The facts show that many occupants have income below the Kendal minimum wage. Some families also have lower incomes than before living in a public rental flat.

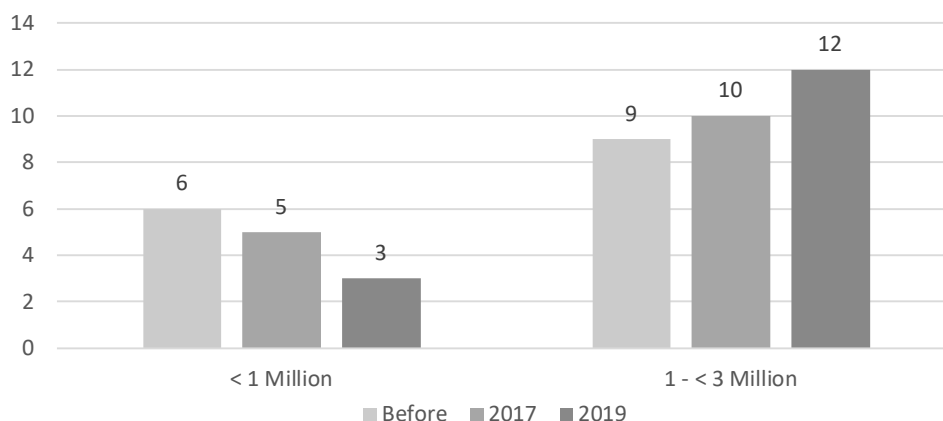


Figure 7: Average Family expenses from occupants of Kebondalem Rental Flats

This condition is made worse by the higher expense, including rental and bills for water and electricity that need payment every month (Figure 7). It happens because their previous living

spaces belong to their relatives or parents, where they do not need to make any rental payment. Another possibility why expenses for occupants have increased after living independently in the public rental flat is that expenses are shared with other family members before moving. In addition, changes in clean water and electricity costs contribute to increased expenditure costs.

Nevertheless, life in a flat is not a terrible matter. Even though the income of its occupants is decreasing, living in this rental flat gives the security of tenure. Generally, occupants who already live there feel comfortable. They are secure and relatively cheap to pay the rental fee, which needs payment monthly at a relatively low rental price, less than two hundred thousand rupiahs per unit per month or around one-tenth of the regional minimum wage. This contract system is certainly burdensome compared to the monthly payment system adopted by a public rental flat.

5 Conclusion

The rental flat of Kebondalem is a solution for slums in Kendal urbanized area. However, it still seems far to provide housing for low-income households, for example, industry workers, both for Kendal Regency and Semarang City. It is due to the long distance of the Kebondalem rental flat to the industrial locations. However, it can be another case in the future, when the industrial park develops or when another industry is placed nearby the rental flat.

Public rental flat as an instrument to fix the socio-economic conditions of people with low income needs a follow up that can give endless benefits for the occupants because the flat represents the improvement of the occupants' living quality. In conclusion, for those who stay in 2020, the public rental flat increases the income of families who live in a rental flat, as the monthly payment is relatively not expensive. However, the income in 2017 seems higher than in 2019 compared to the standard of regional minimum wages, which increases every year. Furthermore, some policies seem to reduce the chance of occupants to develop their entrepreneurship from home. It limits their chance of economic activity or business to generate income. For example, the Decree of Minister of Public Housing Number 14/PERMEN/M/2007 and Regent Regulation Number 34/2014 states that the occupants cannot change the function of the flats from living spaces into business spaces.

The effects of the regulation are the lower-income family for the occupants who have micro or small enterprises in their flats. In the Kebondalem rental flat, luckily, due to the facility for economic activities are not available yet, the occupants are allowed to have an enterprise without any additional cost until the managers of the flats can provide them with an area for business. The condition may be worse when strict rules are implemented. It is far from the government's original purpose in improving people's living conditions. The policy needs to be modified, especially about having a micro-enterprise in the flats. As far as the micro or small economic activities do not give environmental or social effects, micro and small economic activity are suitable for the occupants.

6 Availability of Data and Material

Data can be made available by contacting the corresponding author.

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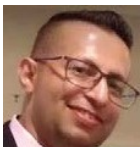
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