

## **The Stimulant Assistance Program Of Self-Help Housing In Attempts To Improve The Living Quality Of Middle-Class In Indonesia**

Siska Amelia<sup>1)</sup>, Guswandi<sup>2)</sup>

<sup>1)</sup>Lecturer at the Faculty of Engineering, University of Krisnadwipayana, Jakarta, Indonesia

<sup>2)</sup>Lecturer at the Faculty of Economy, University of Krisnadwipayana, Jakarta, Indonesia

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**Abstract:** To date, poverty remains an issue that is often discussed especially in developing countries, including Indonesia. According to the Central Bureau of Statistics (BPS – *Badan Pusat Statistik*), the number of poverty in Indonesia is still high, it reached up to 9.82% or 25.95 million people in March 2018. One of the indicators of poverty is the low-income class that constitutes poor access to proper housing. Consequently, such poor access causes high number of housing backlog. The number of housing backlog in Indonesia in 2017 was 11.4 million. One of the government's programs to cope with the housing backlog is the Stimulant Assistance Program of Self-help Housing (BSPS - *Program Bantuan Stimulan Perumahan Swadaya*) for the middle-class population (MBR – *Masyarakat Berpenghasilan Rendah*). This study aims to investigate the efficiency of the program's implementation in eight provinces using qualitative and quantitative methods by conducting a direct observation, as well as handing out questionnaires to middle-class population and using an analytical tool of Data Envelopment Analysis (DEA). The study is conducted to acknowledge whether the BSPS program for middle-class population can decrease poverty and housing backlog. The findings show that among the selected eight provinces, six (Jawa Barat, Jawa Timur, Kalimantan Barat, Maluku Utara, Papua dan Sulawesi Selatan) have an efficiency (100%), while the province of Provinsi Nusa Tenggara Barat does not (86.6%), as well as the province of Aceh, which implementation is almost efficient (91.4%). These findings indicate that the BSPS program for the middle-class population can decrease poverty by the apparent housing quality improvement, yet has not been able to lower the housing backlog.

**Keywords:** poverty, regional development, self-help housing

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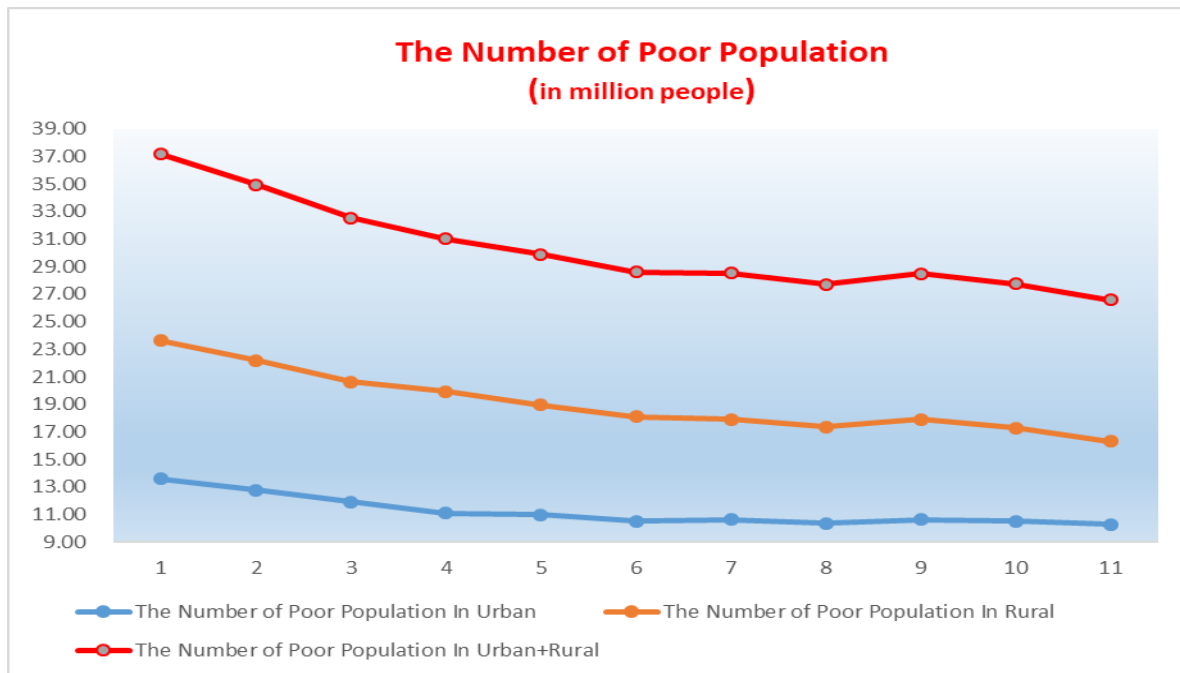
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### **I. INTRODUCTION**

To date, poverty remains an issue that is often discussed especially in developing countries, including Indonesia (Zaini, MF et al; 2018; Gilbert, G, 2014). Poverty is a condition; insecure income, low housing quality and productive assets; inability to maintain health well, dependency and lacking assistance, the presence of anti-social behavior (*anti-social behavior*), the lack of networking support to afford a good life, infrastructures, and isolation, as well as inability and remoteness. (Poli 1993 in Guswandi 2016). Poverty is a condition of material and social deprivation which causes individuals to live under the standard of a good life, or a condition wherein individuals experience a relative deprivation compared to other individuals within the community (Hall dan Midgley, 2004). Poverty is a condition of inability to fulfill their basic needs (Nugroho, 2017). It is a level of life under the minimum standard (Sajogyo, 1987). Poverty is a low standard of living where in there is a degree of inadequacy on a number or group of people that directly affect health, moral life, and dignity (Suparlan, 20014). It is a living condition with many insufficiencies experienced by an individual or household, thus they could not fulfill their minimum or proper needs for the living (Ritonga, 2003)

According to data from the Central Bureau of Statistics (BPS), the number of poverty in Indonesia is still high, it reached up to 9.82% or 25.95 million people in March 2018 categorized as poor. Within the last 10 years, the number of poor population in Indonesia seemed to be lowered even though the decrease itself is not very significant. In Picture 1, it can be seen the number of poor population in Indonesia. According to that, there is a comparison of the poor population in urban and outskirt areas, the number of poor population in outskirt areas are higher compared to the one in urban areas. The percentage of the poor population in urban areas reached 7.26% while in outskirt areas was 13.97%.



Source: Central Bureau of Statistics (BPS), 2018

Picture 1 Graphic of the Number of Poor Population in 2007-2017

Based on the definition of poverty by experts, one of the indicators of poverty is income (Angel. S et al, 2018; Gerege, J et al, 2018; Hohberg. M et al, 2018; Sun. C et al, 2018; Ikemi. M et al, 2018). According to World Bank, the category of the poor population is a population who has an income of USD 1.9 per capita per day, while the Central Bureau of Statistics stated that a population is considered poor if their income is IRD 361,990.00 per capita or IRD 12,066 per capita per day. The low rate of income causes low access of people toward housing (Gilbert. G Allan, 2014; Bredenoord. J, Lindert. P, 2010). According to data from the Housing Finance Fund Management Center, Ministry of Public Works and People's housing stated that housing backlog in Indonesia in 2017 reached 11,459,875 (in 2010 was 13,495,4460). It indicates that there are still populations that have no housing ownership as a basic living need. From the data and phenomena that are apparent, it can be seen that there is an increase in exclusive housing in residential areas and a decrease of simple housing provision for the middle-class population. Indonesia will keep experiencing housing backlog as long as the income is not distributed evenly, uncontrollable land price, low income, as well as complicated housing establishment permit. According to the data from BPS, the high level of new family growth in Indonesia reaches on average 800 thousand annually, therefore, it is required an adequate addition of new housing.

The high housing backlog in Indonesia is caused by the high number of poverty in Indonesia, therefore, the access for poor population to obtain housing is inadequate. From the phenomena happening in major cities, it can be seen the trend of the establishment of housing clusters and apartments. The trend of property business, especially in metropolitan cities in Indonesia, can only reach a small part of Indonesia's population. Only the upper-class population has access to those housings because the good landed housing or apartment are very expensive, therefore, the trend has not been able to decrease the major housing backlog.

In order to fulfill the housing need for the middle-class population, the government issued several policies. One of them is by issuing Act No. 1 of 2011 regarding Housing and Residential Area, Act No. 20 of 2011 regarding Flats, Ministerial Regulation of People's Housing No. 10 of 2012, and Ministerial Regulation No. 7 of 2013 regarding Amendment of Ministerial Regulation No. 10 of 2012. In Act No.1 of 2011 regarding Housing and Residential Area on article 34, it is stated that legal institutions that work on housing development should establish a housing with a balanced occupancy. Clearly, it is mandated that the balanced occupancy is developed to fulfill the housing need of the middle-class population. The main principle regulated in the act is (a) the legal institutions working on housing development must establish a housing with a balanced occupancy; (b) big-scaled housing establishment conducted by legal institutions must actualized a balanced occupancy within one stretch; (c) the government and/or regional government can give incentives to the legal institutions to encourage housing development with a balanced occupancy. In Act No.20 of 2011 regarding Flats on article 14 point (1) letter (f), it is stated that "the arrangement of flats development is implemented based on the concept of balanced occupancy". The Ministerial Regulation of People's Housing No. 7 of 2013 article 5 stated that "every individual who establishes a housing and residential area must be with a balanced occupancy unless it is entirely designed for simple housing and/or public flats. In that Ministerial Regulation, it is also mandated a balanced

housing in urban areas regulated by a goal to guarantee the provision of exclusive housing, middle housing, and simple housing for people, which established in one stretch or not in one stretch for simple housing.

In order to decrease the housing backlog, the Indonesian government, through the Ministry of Public Works and People's Housing, issued a Stimulant Assistance Program of Self-help Housing (BSPS) that is aimed to middle-class population (MBR). This program has been implemented since 2006 to date to encourage the MBR to establish their own proper housing and/or a healthy and safe environment. This assistance is a trigger for the people's self-reliance in many aspects, including funding, labor, or other supports. It is expected to grow a good initiative of self-reliance for the receiver, family and relatives, and the environment. Therefore, the assistance can be utilized to support the development or improvement of housing quality to be proper.

The types of BSPS activities include: New Development (BP), Quality Improvement (PK), and Development of Public Facilities (PSU). The New Housing Development (BP) includes: a) New Development (BP) replacing Uninhabitable House (RTLH) with a degree of Total Damage; b) New housing development (PB) upon a mature land plot. The Quality Improvement (PK) includes: a) Minor Quality Improvement (PK) for RLTH with a degree of minor damage or insufficient building health; b) Medium Quality Improvement (PK) for RLTH with a medium degree of damage; c) Major Quality Improvement (PK) for RLTH with major degree of damage. The Development of Public Facilities (PSU) is implemented independently by the receiver of BSPS in a form of building materials and supports from district/city government which can be in a form of an assistant workforce, wage, and equipment that came from the Regional Revenue and Expenditure Budget (APBD).

This study aims to investigate the efficiency of the implementation of the Stimulant Assistance Program of Self-help Housing (BSPS - *Program Bantuan Stimulan Perumahan Swadaya*) for middle-class population (MBR – *Masyarakat Berpenghasilan Rendah*) in eight provinces (Jawa Timur, Kalimantan Barat, Sulawesi Selatan, Aceh, Nusa Tenggara Barat, Papua, Jawa Barat, and Maluku Utara) using a method of Data Envelopment Analysis (DEA).

Data Envelopment Analysis (DEA) is a non-parametric method to determine the level of efficiency of an analytical unit. It is designed to assess the relative efficiency of a unit within one set wherein the input and output is not equal, therefore, the steps of simple efficiency are difficult to achieve (Thanassoulis, Dyson & Foster, 1987; Olariu, 2017). The basic model of DEA in accordance with the basic assumption for an efficiency measurement based on Constant Return to Scale (CRS), which is a proportion of input change in line with the proportion of output change or based on the assumption of Variable Return to Scale (VRS), which is oriented to minimalizing input or maximizing output (Charnes, et al., 1978 in Olariu, 2017). The components in the DEA model other than input and output variables is the Decision Making Unit (DMU). The scale of efficiency related to every type of surface envelope caused by the respective DMU and this surface triggers the line of efficiency (Charnes, Cooper, & Rhodes, 1978 in Olariu, 2017). The aspects included in the surface (scale 1) are considered efficient and the ones not included are not. For the inefficient aspects to be efficient, we can do the alternative way: decreasing the input while stabilizing the output (input oriented analysis), increasing the output while stabilizing the input (output oriented analysis), or increasing the output while simultaneously decreasing the input (double version) (Olariu, 2017).

## **II. RESEARCH APPROACH**

The scientific approach to constructing this article is a combination between qualitative and quantitative methods. The qualitative method is conducted through a direct observation at the field that is the research object, as well as distributing questionnaires to the middle-class population (MBR). The qualitative method is through acknowledging the research findings related to the programs of self-help housing that have been conducted in several countries, as well as an observation in the study location. The data analysis is done by using an analytical tool of Data Envelopment Analysis (DEA) as an instrument to analyze. The analytical units are the provinces with a sample of eight provinces including Jawa Timur, Kalimantan Barat, Sulawesi Selatan, Aceh, Nusa Tenggara Barat, Papua, Jawa Barat, and Maluku Utara. The variables in this study comprise of output and input variables. The input variables consisted of seven variables: a) people's income, b) culture, c) the availability of building materials, d) the access to the location of building materials, e) condition of road network, f) transportation facilities from the houses to the location of building materials, and g) the regional government's attention, while the output variable is the housing quality improvement.

## **III. REGULATION, DISCUSSION, AND FORMULATION OF THE IMPLEMENTATION**

As mandated in the Constitution of 1945 and article 28H of Amendment of the constitution of 1945, a house is one of the people's basic needs, therefore, every citizen has the right to have a housing and a good and healthy environment. Besides, it is also human's basic need in improving dignity, life quality, and living, as well as self-reflection as a mean of increasing the welfare, character building, characters, and national traits (Kwok. LL. Et al, 2018; Li. J and Liu. Z, 2018). In reality, there are still many citizens who are not able to afford their

own house and also many of them own a house but it is still not proper to be categorized as a good and healthy housing.

The middle-class population is categorized as poor people. The concept of poverty according to Nugroho, 2017, can be seen from the economic, social, and political aspects. It is perceived as a gap between the weak purchasing power (positive) and the will to fulfill the basic needs (normative). As seen from the social aspects, poverty indicates a low potential for social development. In the developing society, the limited and vague aspiration and perception, as well as the ones prioritizing or concerning decision-making within a short period of time. Perceived from the political aspects, poverty is related to the people's weak self-reliance. The dependency or exploitation by society to each other and leads to injustice or gap (Nugroho, 2017).

In order to fulfill the citizens' needs on housing ownership or improvement of housing quality that is habitable for the middle-class population, there have been many programs initiated by the government, including the assistance of self-help housing in developing countries (Bredenoord. J dan Lindert P, 2010). Bredenoord and Lindert (2010) stated that the high number of self-help housing in developing countries is caused by the presence of major migrations. The implementation of self-help housing developed since the 70's with a scheme of "small-scale-site-and service" which was combined with the assistance scheme to independently establish it. The self-help residence is still a phenomenon concerned because even though there are some countries that do not get the attention of the government. The high needs of housing constitute the urgency of house provision policy for the poor population, therefore, it is imperative to create local and national policies, as well as conducting a revolution toward the self-help housing assistance (Bredenoord. J dan Lindert P, 2010). The fulfillment of affordable housing and improvement of housing quality for citizens in Malaysia is conducted through the Low Cost Housing (LCH) Program (Bakhtyar. et al, 2013).

A study conducted by Sakay *et al.*, (2011) investigated the existence of self-help housing to cope with the occurrence of slums (illegal) as a consequence of high population growth in Lima, Peru. The findings showed that there was a need for new developing ideas to deal with the issues of slums in Lima, Peru. One of the attempts conducted to deal with the issue was by implementing a self-help housing establishment supported by organizations/community/civil groups toward an improvement. From the findings stated by Sakay *et al.*, it can be acknowledged that the program of self-help housing in Lima, Peru, can repair the residential environment, yet had not been able to solve the housing backlog in Lima, Peru.

Budds (2005) studied the housing and city development policies and programs which supports the poor population in Sao Paulo through the SEHAB program. Sao Paulo is one of the most developed and modern cities in South America, yet one-third of the population live in low-quality residence within a residential environment that is below the standard. The program conducted by the government to solve the housing issue was done through the improvement and ratification of land ownership in informal residence and through the regeneration of the city center. The program can happen by the support of new law, financial instrument and partnerships with private institutions, integration of urban development, modernization of administration system, and public participation in all process of decision-making and implementation.

Gopalan and Venkataraman (2015) conducted a study to acknowledge the housing issues in India, wherein the housing backlog reached 18 million houses (99% of those belonged to poor people). The findings stated that the implementation of affordable housing was expected to be able to lower the housing backlog in Indonesia. The requirements of an affordable house are important in the national, city, and individual scopes because the existence of affordable houses for low-income people is a requirement for a city to attract and maintain labor force required to ensure the economic success. From a national perspective, affordable housing is one of the indicators of balanced development in India. When the housing is not affordable, there will be housing market bubbles with serious impacts on the economic policies and unequal economy. The existence of affordable housing in India is expected to be able to lower the housing backlog.

Valladares (2017) conducted research on a housing crisis faced by Kuba after the fall of the Uni Soviet. In order to cope with the housing crisis, the government initiated a self-help housing development implementation through the program of "The Community Architect Program", wherein the role of community in giving suggestions of housing design for the to-be independently built housing. The researcher investigated two groups of people who renovated their houses in the area of Old Havana, who were high-income people and low-income people. The benefits gained by the two groups were different, the high-income people benefitted from it, yet, the low-income people did not. The findings indicated that the method of participative design must be equipped with community-based initiatives that are concerned about other aspects of the residential development process, including access to building materials, constructions, and construction management.

The concept of housing needs fulfillment can be seen in the study conducted by Aromokudu and Logia (2017). The fulfillment of housing needs for the low-income population in South Africa is provided by the country through a subsidy for housing renovation. The subsidy is aimed to improve the socioeconomic status of the low-income population and give an opportunity for people to widen their housing to be proper in accordance with the needs of a developing household. Due to the limited assistance given by the government, the program expects the people's self-reliance. The self-help initiative implemented in South Africa is without any assistance

or supervision from the government. The government just gave assistance to renovate the houses of the low-income population while the implementation is given entirely to the people. Due to the absence of supervision and guidance from the government, people utilize supports from social media or paid professionals to renovate their houses. It is implemented because of their limited knowledge of house building techniques. The self-help program in South Africa has not been able to fulfill the housing needs of the low-income population (Aromokudu and Longgia, 2017).

As discussed in the introduction, housing backlog in Indonesia is still high with 11.4 million units. Indonesia will constantly face housing backlog as long as the income is not distributed evenly, land price is uncontrolled, people's income is not affordable, and the building permit is made complicated by the regional government (Kwok. LL. Et al, 2018; Bredenoord. J, Lindert. P, 2010). With the level of new family growth in Indonesia which on average 800 thousand annually, an equal new housing addition is required. Considering the level of housing provision ability of private institutions, which on average only 300-400 thousand units of housing annually, the role of government is very expected to be able to close the deficit between the housing demand and supply (Bredenoord. J, Lindert. P, 2010).

In order to cope with the housing backlog, many programs have given subsidy that is considered effective in helping poor people to renovate their housing, therefore, the provision of housing assistance is effective to lower poverty, yet for years there has been housing backlog (Gilbert, 2014). The assessment of success based on studies wherein in 2012, the Colombian Government initiated a program that provided 100,000 units of housing for the poor family annually, it was considered an approach that had not been conducted before across the globe. The findings stated by Gilbert (2014) can be seen in the program of housing assistance/subsidy that was effective to decrease poverty, yet not very significant to solve the issue of housing backlog.

In order to decrease the housing backlog, as well as providing proper housing in Indonesia, the government, through the Ministry of Public Works and People's Housing, issued a Stimulant Assistance Program of Self-help Housing (BSPS) that is aimed to middle-class population (MBR). Based on the technical guidance of the implementation mechanism of BSPS 2016, the Stimulant Assistance Program of Self-help Housing (BSPS) is aimed to increase the initiatives of the Middle-class Population (MBR) in the development/improvement of housing quality, as well as the facilities and infrastructures. The objective is to establish habitable housing for Middle-class Population (MBR) supported by Facilities and Infrastructures (PSU – *Prasarana, Sarana, dan Utilitas Umum*) so that it can be a healthy, safe, synergized, orderly, and sustainable residence. The categories of the stimulant assistance of self-help housing comprised of the housing quality development and improvement. Initially, the stimulant assistance given to the middle-class population was through the Microfinance Institutions or Non-Bank Financial Institutions (LKM – *Lembaga Keuangan Mikro/LKMB – Lembaga Keuangan Non Bank*) in accordance with the regulation in the Regulation of the State Minister of Public Housing of the Republic of Indonesia No. 8 of 2006. The implementation involves many parties, either at the level of center, provinces, or districts. In the program implementation, the equal understanding of every party is vital so that the implementation can work well and right. The provision of stimulation for self-help housing as mandated in the Ministerial Regulation of Public Housing is that to encourage LKM/LKMB to be able to facilitate the improvement/development of housing or residence through the funding that can be easily accessed by the middle-class population to help them inhabit a housing with a habitable environment.

The implementation of stimulant assistance of self-help housing initiated by the Ministry is a stimulant program which funding sourced from the APBN. From the observation conducted, there are some provinces in Indonesia which have done a similar program using the Province's APBD budget, such as:

- The province of Nusa Tenggara Barat implements the Renovation Program of Inhabitable Housing/Slum housing. This program was started in 2012 with a number of housing units of 3,810 and a total budget allocated by the Government of NTB Province as much as 20 billion. At the beginning of the program implementation, individuals or family heads were given the slum housing renovation assistance. Along with the changes in the budget, the assistance of house renovation budget for the middle-class population was given through the groups formed by each village. The budget transferred directly to the groups' accounts is managed independently by the receivers. The concept of this program is mutual cooperation, working together with the local residents of the villages (The Government of Nusa Tenggara Timur Province).
- Jawa Timur Province has the Program of Inhabitable Housing Renovation for People that have been implemented since 2009. The number of renovated housing through the program from 2009-2012 is 60,000 units of housing. The activity is a partnership between the Government of Jawa Timur Province and Kodam V/Brawijaya (The Government of Jawa Timur Province)
- Jawa Barat Province conducts a Program of Inhabitable Housing Renovation (Rutilahu - *Program Perbaikan Rumah Tidak Layak Huni*) that was started in 2012. The program is a program of reconstructing poor people's houses in Jawa Barat, in 2012 it did 7,500 units of houses, in 2013 the program targeted

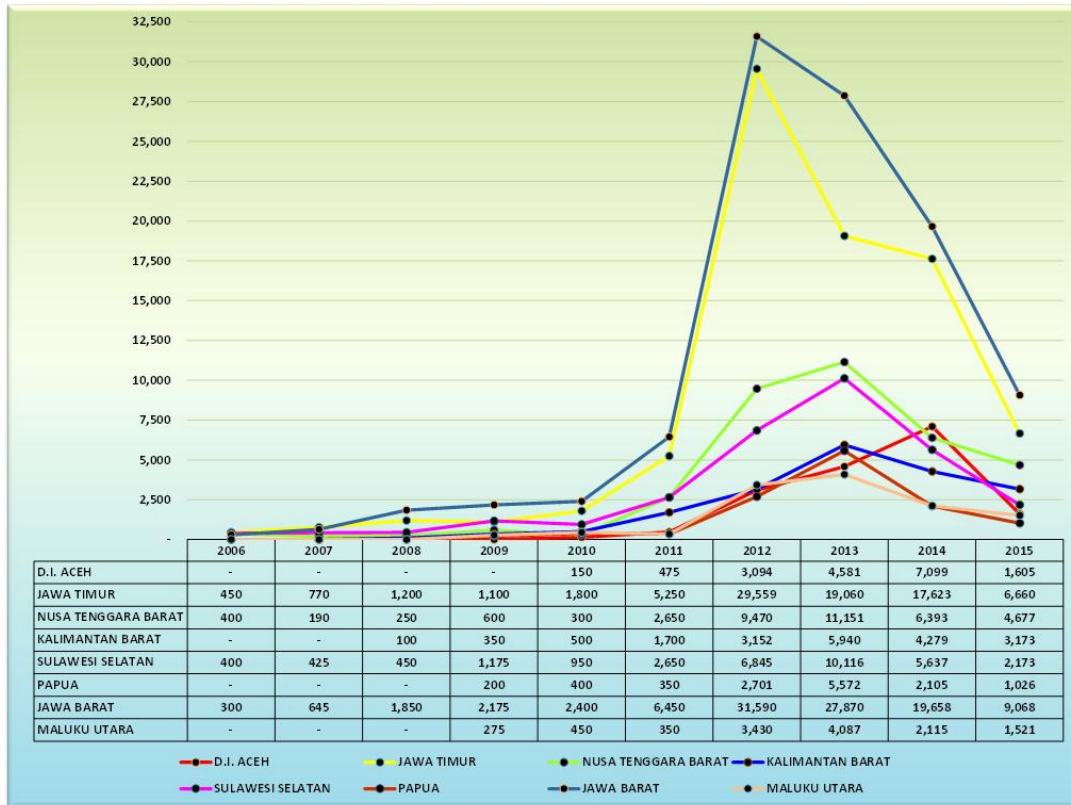
10,000 units of houses, and in 2016, the Government of Jawa Barat Provinces built 4,000 units of self-help housing (The Government of Jawa Barat Province).

- Sulawesi Selatan Province implements the Program of Housing Renovation for Middle-class Population that was started in 2013. The absolute requirements for the houses to be renovated include must not be violating the spatial condition, either the demarcation of buildings or river borders, must own the land and is not rented, proven by a certificate. The program of housing renovation to be habitable is aimed to give stimulation to the house owner who has not met the standard, such as sanitation, house building materials, up to the house structure (The Government of Sulawesi Selatan Province).

#### **IV. FINDINGS**

In order to deal with the issue of housing needs fulfillment for middle-class people, since 2006, the government through the Ministry of People's Housing stipulated a policy on self-help housing development in a form of Minister of Public Housing Regulation No. 6/Permen/M/2006 regarding Development/Renovation of Self-help Housing through Credit/Micro-financing using the Support of Subsidy Facilities. In the implementation, the program keeps being improved, in order to improve the implementation of such self-help housing development, in 2013, it was issued a Minister of Public Housing Regulation No. 6 of 2013 regarding Stimulant Assistance of Self-help Housing. In the regulation, it is mentioned that the vision is for the government to provide stimulant assistance in a form of materials for Middle-class Population (MBR) to upgrade their housing quality from Uninhabitable House (RTLH) into Habitable House (RLH). Hopefully, the regulation can be a legal umbrella so that the channel of assistance can be more accurate, which in time will encourage the people's ability to own a habitable housing. From the implementation regulation, the self-help housing assistance will keep being improved with the presence of Ministerial Regulation PUPR No. 39 of 2015 regarding Amendment of Minister of People's Housing Regulation No. 6 of 2013 regarding Implementation Guidance of Stimulant Assistance of Self-help Housing. In 2016, the implementation guidance is further optimized by the stipulation of Minister of Public Works and People's Housing Regulation No. 13 of 2016 regarding Implementation Guidance Self-help Housing and Minister of Public Works and People's Housing Regulation No. 7 of 2018 regarding Stimulant Assistance of Self-help Housing. The Stimulant Assistance Program of Self-help Housing is one of the government's attempts to encourage poor people to improve their housing quality collectively so that it can be more habitable. The program is stimulation to promote people to work collectively, helping each other in terms of housing improvement.

The implementation of the stimulant assistance program of self-help housing keeps having an improvement in terms of regulation, implementation guidance, and the number of middle-class population as the receivers. From the eight provinces that became the research location, it can be acknowledged the number of receivers that is constantly increased. From the data, the receivers from 200-2015 in the eight provinces (Jawa Timur, Kalimantan Barat, Sulawesi Selatan, Aceh, Nusa Tenggara Barat, Papua, Jawa Barat, and Maluku Utara), Jawa Timur Province has a drastic increase in the number of receivers in 2011-2012 from 2,520 units to 20,550 units of housing and Jawa Barat province from 6,540 units to 31,590 units of housing, Aceh Province from 475 units to 3,094 units of housing. The number of receivers had been decreased again in 2013-2015, which was caused by the decreasing rate of poverty in Indonesia.



Source: Kementerian PU-PR. 2016

Picture 2 Graphic of The implementation of the stimulant assistance program of self-help housing

The result of data analysis using the primary assumption of Constant Return to Scale (CRS) DEA wherein the proportion of input changes is in line with the proportion of output changes indicating the result in Nusa Tenggara Barat Province, the implementation of BSPS program is not efficient, has a percentage of 86.6%, Aceh Province is close to efficiency with a percentage of 91.4%, meanwhile, the rest of six provinces (Provinsi Jawa Timur, Kalimantan Barat, Sulawesi Selatan, Jawa Barat, and Maluku Utara) has an efficient BSPS program implementation with a percentage of 100%. By using the assumption of Constant Return to Scale (CRS) DEA that is oriented in minimalizing the input or maximizing input, there is an improvement of efficiency value (Increase Return to Scale/IRS), Nusa Tenggara Barat Province became 92.6% and Aceh Province became 99.6%.

Based on the result of field observation, the BSPS program implementation for MBR in Nusa Tenggara Barat Province is inefficient. The lack of efficiency in the BSPS program implementation for MBR in Nusa Tenggara Barat Province is quite positive due to the high rise of public participation and collective work (local wisdom) of the local people. With or without the assistance program of self-help housing, people work together to renovate the houses that had become inhabitable. Besides, the high increase of self-reliant people, if there are people who have more income, they will help other families whose housing condition is concerning. Meanwhile, for Aceh Province, the analysis result shows a close proximity to efficiency due to the lack of public enthusiasm toward the government program, as well as the fact that in several locations, there has not enough socialization conducted by the regional government regarding the existence and mechanism of the Stimulant Assistance of Self-help Housing(BSPS) program implementation for the Middle-class Population.

Table 1 The Result of Housing Quality Improvement Efficiency

No	Province	CRS	VRS	Scale	Information
1	Jawa Timur	1.000	1.000	1.000	-
2	Kalimantan Barat	1.000	1.000	1.000	-
3	Sulawesi Selatan	1.000	1.000	1.000	-
4	Aceh	0.914	0.996	0.918	IRS
5	Nusa Tenggara Barat	0.866	0.926	0.935	IRS
6	Papua	1.000	1.000	1.000	-
7	Jawa Barat	1.000	1.000	1.000	-
8	Maluku Utara	1.000	1.000	1.000	-

No	Province	CRS	VRS	Scale	Information
	Mean	0.973	0.990	0.982	

Source: the result of the count, 2018

The Stimulant Assistance Program of Self-help Housing for the Middle-class Population promoted by the government with the hope of lowering the rate of poverty and solve the issue of housing backlog. The BSPS program for MPR that is conducted in Indonesia can only solve poverty, yet, has not been able to deal with the housing backlog, it is in line with the studies conducted by Gilbert, 2014, which stated that housing assistance program/housing subsidy is effective to reduce poverty but not really significant in lowering housing backlog. The Stimulant Assistance Program of Self-help Housing for the Middle-class Population cannot solve housing backlog because the program implementation generally focuses on housing quality improvement, in other words, the program only targets people who already have a house. Meanwhile, the housing development started to be implemented on houses which have a severe level of damage, which means it still targets the people who already own a house. The program has not targeted the people who truly do not own a house.

## V. CONCLUSION

This study aims to investigate the efficiency in the BSPS program implementation for MBR in eight provinces that became the research locations using one output variable and seven input variables. The input variables consisted of seven variables: a) people's income, b) culture, c) the availability of building materials, d) the access to the location of building materials, e) condition of road network, f) transportation facilities from the houses to the location of building materials, and g) the regional government's attention, while the output variable is the housing quality improvement. Based on the result of analysis using the assumption of *Constant Return to Scale* (CRS) which is a proportion of input change in line with the proportion of output change shows a result where the BSPS program for MBR in Nusa Tenggara Barat Province is not efficient with a value of 86.6% and Aceh Province is more efficient with a value of 91.4%, for the other six provinces, the BSPS program implementation for MBR is efficient. Meanwhile, by using the assumption of Variable Return to Scale (VRS), which is oriented to minimalizing input or maximizing output, there is an increase of the scale (value) of efficiency in Nusa Tenggara Barat Province to be more efficient with a value of 92.6% and Aceh Province becomes 99.6%.

The lack of efficiency in the BSPS program implementation for MBR in Nusa Tenggara Barat Province is quite positive. It is due to the high level of concern of those who have more capability to collective work to help the less fortunate ones in renovating their houses. The level of efficiency in the implementation of BSPS for MBR in Aceh Province which only reached the value of 99.6% is caused by the input variables of the people which was slightly hampered by the access to the location of building materials and the provision of building materials, meanwhile, the level of people's self-reliance, as well as concern of the regional government is already good. The program implementation in Jawa Timur Province is considered quite successful that it can improve the housing quality for low-income people. It can be seen in the analysis result that represent an efficiency value of 100%. The primary target of receivers of the self-help assistance in this province is the people with an income under one million rupiahs. The implementation of the BSPS program for MBR in Kalimantan Barat Province, based on the analysis result, shows an efficiency value of 100%. The program implementation in Kalimantan Barat Province is considered accurate in targetting people with a low income and has been able to improve the housing quality of the receivers in the province. Similar to Sulawesi Selatan, Papua, Jawa Barat, and Maluku Utara Provinces, the BSPS program for MBR is considered accurate and has been able to improve the housing quality of the receivers. The level of people's self-reliance in the research locations is quite high, the characteristics and local culture that have a spirit of collective work contributed to the success of this program. The presence of the people's self-reliance becomes one of the success indicators of BSPS program for MBR wherein the program implementation is aimed to give financial support as stimulation to increase the housing quality for the low-income population.

The BSPS program for MBR can only accomplish one of the government's goals, which is to lower the rate of poverty by improving the people's housing quality. Another goal to be accomplished by the government is to reduce the housing backlog that has not been achieved. It aligns with the studies conducted by Gilbert (2014), Sakay, *et al.*, (2011), and Aromokudu and Longgia (2017). The findings that are considered able to solve housing backlog in India is the one conducted by Gopalan and Venkataraman (2015) by providing affordable housing. The findings to reduce poverty by improving the housing quality through Sehab Program succeeded in giving housing subsidy to poor people without relocating them in Sao Paulo (Budds, 2005). The self-help housing program in a form of the assistance of housing design for the renovated houses in Old Havana gave benefits for the high-income people yet do not benefit the low-income people (Valladares, 2017)



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