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# Benefit Incidence Analysis of Uninhatitable Houses Rehabilitation Program in Indonesia

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## Abstract

The Government of Indonesia has launched new social assistance program named the Uninhabitable Houses Rehabilitation Program (in Indonesian: Program *Rumah Tidak Layak Huni*). Uninhabitable Houses Rehabilitation program is a social assistance program that aims to restore social functioning and improve the quality of poor housing that is initially uninhabitable to be habitable. This study aims to evaluate the achievement of the Uninhabitable Houses Rehabilitation Program in Grobogan Regency, Central Java Province, Indonesia. Grobogan Regency has the highest number of an uninhabitable houses compared to another regencies and cities in Central Java Province. The method used in this study is Benefit Incidence Analysis (BIA). This model shows the distribution of public expenditure made by the government into different community groups based on the level of income, so that it is expected to explain the progression of the Uninhabitable Houses Rehabilitation program given by the government to the residents of Grobogan Regency. The results of this study indicate that the Uninhabitable Houses Rehabilitation program in Grobogan Regency is a progressive policy, because the benefits received by the poor are more than 10%, i.e. 12,12%.

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## 1. Introduction

Poverty is a common phenomenon in developing countries. Poverty is also a very fundamental problem, because in one side poverty indicates the level of development of a society and on the other side it is as an indicator of deterioration of the development process. In addition, poverty is also a sign of social problem in the community and nation (Setiowati, 2018). According to Aneta (2010), poverty is a complex problem and is no longer acknowledged as limited economic capacity only but also incapability to meet the needs of fundamental rights, such as their need for food, access for education, work, access for health facilities, access for better housing, access to clean water and land, access for to the environment and natural resources, the secure treatment, avoidance of violence and the right to participate in the social life as well as politics.

The data show that the poverty rate in Java in during 2007 to 2017 were still relatively high and the trends indicate that the poverty rates slightly declined. Details of data about

poverty rates can be seen in table 1. Table 1 shows the highest average poverty rate is in Central Java Province at 15.6% followed by Yogyakarta Special Region at 15.5%, then the lowest average poverty rate is DKI Jakarta at 3.8%.

TABLE 1: Poverty Rate in the Island of Java in 2007-2017 (%).

| Province | Year | | | | | | | | | | | Avarage |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | |
| Special Capital Region of Jakarta | 4.6 | 4.3 | 3.6 | 3.9 | 3.8 | 3.7 | 3.7 | 4 | 3.6 | 3.7 | 3.8 | 3.8 |
| West Java | 13.5 | 13 | 12 | 11.3 | 10.7 | 9.9 | 9.6 | 9.1 | 9.5 | 8.7 | 7.8 | 10.4 |
| **Central Java** | **20.4** | **19.2** | **17.7** | **16.6** | **15.8** | **15.8** | **14.4** | **13.5** | **13.3** | **13.1** | **12.2** | **15.6** |
| Special Region of Yogyakarta | 19 | 18.3 | 17.2 | 16.8 | 16 | 15.8 | 15 | 14.5 | 13.1 | 13.1 | 12.3 | 15.5 |
| East Java | 20 | 18.5 | 16.6 | 15.2 | 14.2 | 13 | 12.7 | 12.2 | 12.2 | 11.8 | 11.2 | 14.3 |
| Banten | 9.1 | 8.1 | 7.6 | 7.1 | 6.3 | 5.7 | 5.9 | 5.5 | 5.7 | 5.3 | 5.6 | 6.5 |

Source : BPS ,2017

The government is a main party that has the obligation to create a prosperous community. As stipulated in the constitution of the Republic of Indonesia, The Government has an obligation to protect all the people's social welfare and to create social justice for all people of Indonesia (Usman, 2014). In order to dealt with the highest number of poverties in Central Java Province, the central government has implemented several programs to alleviate poverty, one of which is through the Uninhabitable Houses Rehabilitation Program (in Indonesian: *Program Rumah Tidak Layak Huni*).

According to Roebyantho & Unayah (2014), one of the efforts that has been made by the government to meet the housing needs of poor families is by expanding access to healthy and livable housing and settlement services for the poor. The approaches taken by the government are traditional approach, namely environmental utilization, social empowerment and economic empowerment. These three approaches are expected to reduce the burden of the poor to independently improve housing conditions and their settlements. Djpp (2002) suggested that the housing and permanent settlement as basic needs of humans also have other strategic functions as an education center for a family to improve the quality of generations and a place for transferring the culture or value system.

According to Suradi (2012), the Uninhabitable Houses Rehabilitation Program is social assistance program that aims to restore social functioning and improve the quality of poor housing that is initially uninhabitable to be a habitable house as an element of social welfare. The Uninhabitable Houses Rehabilitation Program is a manifestation of

social policy in the form of social services carried out by the government so that it has a direct impact on people's welfare.

The Social Assistance Uninhabitable Houses Rehabilitation Program is one of the programs from the Central Government, but the Central Java Province Local Government through the Central Java Housing and Settlement Service Office has the responsibility to implement the program. Many houses in Central Java Province were uninhabitable but the residents who were eligible to accept the program did not accept the Uninhabitable Houses Rehabilitation Program. Only some people received the assistance and there were still some poor people who have not received the assistance. The basic information of the nominee of recipients of Uninhabitable Houses Rehabilitation Program is from Updated Integrated Data Base. The data base contains the social and economic conditions of households and individuals in all regions of Indonesia with the lowest level of welfare. The data base was initially used to collect information about poor people so they can be included social protection and poverty reduction programs. The use of Updated Integrated Data Base will help to reduce errors in setting targets for Uninhabitable Houses Rehabilitation Program. The number of uninhabitable houses in Central Java Province in 2016-2017 in presented at table 2.

The data obtained from the Central Java Housing and Settlement Service Office as shown in Table 2 show that the number of uninhabitable houses in Central Java Province in 2016 were 1,682,723 units and it decreased to 1,611,815 units in 2017. The number of uninhabitable houses indicate that there are still many people in Central Java Province who own uninhabitable houses to live in. the highest proportion of uninhabitable houses Central Java Province is found in Grobogan Regency, i.e. 147,657 units in 2016 and 147,466 unit in 2017.

Grobogan Regency has the highest number of uninhabitable houses in Central Java Province, but the problem arises when the recipients of the program is way too small in comparison to the number of uninhabitable houses in Grobogan Regency. The number beneficiaries of Uninhabitable Houses Rehabilitation Program in Grobogan Regency were only 191 units or only 0.12 % of the total uninhabitable houses in 2017. In contrast, Magelang City only has 495 units of uninhabitable houses, but 359 units received the assistance program or equal to 72.52% which is clearly larger than Grobogan Regency. The following Table 3 is the data of the number of recipients of the Uninhabitable Houses Rehabilitation Program.

Through social assistance programs, governments always try to improve the lives of their peoples. However, there is always some ongoing debate whether Uninhabitable

TABLE 2: Number of Uninhabitable Houses in Central Java province, 2016-2017

| No | Regency/ City | Number of Uninhabitable Houses | |
|----|---------------|------|------|
| | | **2016** | **2017** |
| 1 | Cilacap | 101,938 | 101,506 |
| 2 | Banyumas | 116,977 | 116,191 |
| 3 | Purbalingga | 69,601 | 68,586 |
| 4 | Banjarnegara | 52,921 | 52,086 |
| 5 | Kebumen | 44,851 | 44,140 |
| 6 | Purworejo | 30,104 | 29,429 |
| 7 | Wonosobo | 56,855 | 55,950 |
| 8 | Magelang | 64,645 | 64,237 |
| 9 | Boyolali | 53,959 | 53,012 |
| 10 | Klaten | 27,668 | 27,014 |
| 11 | Sukoharjo | 17,982 | 17,456 |
| 12 | Wonogiri | 43,208 | 42,498 |
| 13 | Karanganyar | 14,934 | 14,254 |
| 14 | Sragen | 44,588 | 43,704 |
| 15 | Grobogan | 147,657 | 147,466 |
| 16 | Blora | 91,656 | 91,572 |
| 17 | Rembang | 59,453 | 58,601 |
| 18 | Pati | 87,016 | 86,209 |
| 19 | Kudus | 7,051 | 6,947 |
| 20 | Jepara | 61,568 | 60,919 |
| 21 | Demak | 86,426 | 86,177 |
| 22 | Semarang | 39,984 | 39,345 |
| 23 | Temanggung | 36,853 | 36,148 |
| 24 | Kendal | 58,047 | 57,462 |
| 25 | Batang | 43,276 | 42,741 |
| 26 | Pekalongan | 21,956 | 21,196 |
| 27 | Pemalang | 70,277 | 69,940 |
| 28 | Tegal | 42,675 | 42,359 |
| 29 | Brebes | 63,471 | 62,708 |
| 30 | Kota Magelang | 854 | 495 |
| 31 | Kota Surakarta | 3,040 | 2,729 |
| 32 | Kota Salatiga | 2,028 | 1,883 |
| 33 | Kota Semarang | 15,804 | 15,574 |
| 34 | Kota Pekalongan | 2,410 | 2,020 |
| 35 | Kota Tegal | 990 | 582 |
| | **Central Java Province** | **1,682,723** | **1,611,815** |

Source : Central Java Housing and Settlement Service Office (2017)

Houses Rehabilitation Program can be viewed as highly successful or not. Benefit incidence analysis (BIA) is considered a tool that useful to assess how government's policies

TABLE 3: Number of Uninhabitable Houses Rehabilitation Program Recipients

| No | Regency/ City | Number of Uninhabitable Houses Rehabilitation Program 2017 | | |
|----|---------------|-------------------------------|-----------|-------|
|    |               | Number of Uninhabitable Houses | Recipients | % |
| 1 | Purbalingga | 68,586 | 1,015 | 1.48 |
| 2 | Boyolali | 53,012 | 947 | 1.79 |
| 3 | Wonosobo | 55,95 | 905 | 1.62 |
| 4 | Sragen | 43,704 | 884 | 2.02 |
| 5 | Rembang | 58,601 | 852 | 1.45 |
| 6 | Banjarnegara | 52,086 | 835 | 1.60 |
| 7 | Pati | 86,209 | 807 | 0.93 |
| 8 | Banyumas | 116,191 | 786 | 0.68 |
| 9 | Brebes | 62,708 | 763 | 1.21 |
| 10 | Pekalongan | 21,196 | 760 | 3.58 |
| 11 | Kebumen | 44,14 | 711 | 1.61 |
| 12 | Wonogiri | 42,498 | 710 | 1.67 |
| 13 | Temanggung | 36,148 | 705 | 1.95 |
| 14 | Karanganyar | 14,254 | 680 | 4.77 |
| 15 | Purworejo | 29,429 | 675 | 2.29 |
| 16 | Klaten | 27,014 | 654 | 2.42 |
| 17 | Jepara | 60,919 | 649 | 1.06 |
| 18 | Semarang | 39,345 | 639 | 1.62 |
| 19 | Kendal | 57,462 | 585 | 1.01 |
| 20 | Batang | 42,741 | 535 | 1.25 |
| 21 | Sukoharjo | 17,456 | 526 | 3.01 |
| 22 | Cilacap | 101,506 | 432 | 0.43 |
| 23 | Kota Tegal | 582 | 408 | 70.10 |
| 24 | Magelang | 64,237 | 408 | 0.64 |
| 25 | Kota Pekalongan | 2,410 | 390 | 16.18 |
| 26 | Kota Magelang | 495 | 359 | 72.52 |
| 27 | Pemalang | 69,94 | 337 | 0.48 |
| 28 | Tegal | 42,359 | 316 | 0.74 |
| 29 | Kota Surakarta | 2,729 | 311 | 11.39 |
| 30 | Demak | 86,177 | 249 | 0.28 |
| 31 | Kota Semarang | 15,574 | 230 | 1.47 |
| 32 | **Grobogan** | **147,466** | **191** | **0.12** |
| 33 | Kota Salatiga | 1,883 | 145 | 7.70 |
| 34 | Kudus | 6,947 | 104 | 1.49 |
| 35 | Blora | 91,572 | 84 | 0.09 |

Source : Central Java Housing and Settlement Service Office (2017)

impacts the distribution of welfare of the population. The distribution of welfare can be progressive or regressive. Based on the background described, the sole objective of

this study is to analyze whether the Uninhabitable Houses Rehabilitation Program in Grobogan Regency is a progressive policy or not.

## 2. Research Methods

This study uses quantitative methods. Quantitative research used in this study is the best way to explain the usage and allocation of the social assistance program from the government. The data analysis used in this study is the Benefit Incidence Analysis model. The Benefit Incidence Analysis is expected to give clear information about the benefits and impact of policies provided by the government in the Uninhabitable Houses Rehabilitation Program.

Benefit Incidence Analysis (BIA) is a method used to assess the effects of tax policies or government subsidies in order to influence people's welfare. In other words, BIA is used to evaluate the distribution of government subsidies among different groups in the population, especially community groups, which are divided into several income level categories. The BIA method can later be used as a basis for determining whether the government subsidy program is on target, i.e. the benefits received by people who have low income. If the poor only enjoy a small portion of government subsidies and most of the benefits are received by people who have middle and high income, the government policy can be classified as a failed program.

According to Demery (2000), Benefit Incidence Analysis basically consists of three steps, including: (1) Calculating the amount of subsidies provided by the government originating from official government data and the realization of the government expenditure. (2) Identifying recipients of subsidies. Although the data for recipients of subsidies can be taken from the relevant government agencies, but to see how subsidies are distributed to a pluralistic community group (especially in income or expenditure), it must be supported by a survey of predetermined samples. (3) Classify and rank people based on their income or expenditure into groups (Quintiles or Deciles). This classification of income or expenditure is very important in Benefit Incidence Analysis because it is an indicator of community welfare that will determine whether government subsidies are given to those who really need it, that is the poorest people.

The results obtained are then interpreted into the Lorenz curve and Concentration curve as shown in Figure 1. The vertical axis reflects the total number of populations represented by the sample taken. According to Cuenca (2008), the progressivity or regressivity of a public expenditure can be seen from the Lorenz curve, namely by comparing the benefit concentration curve with a 45 ° diagonal line. A concentration
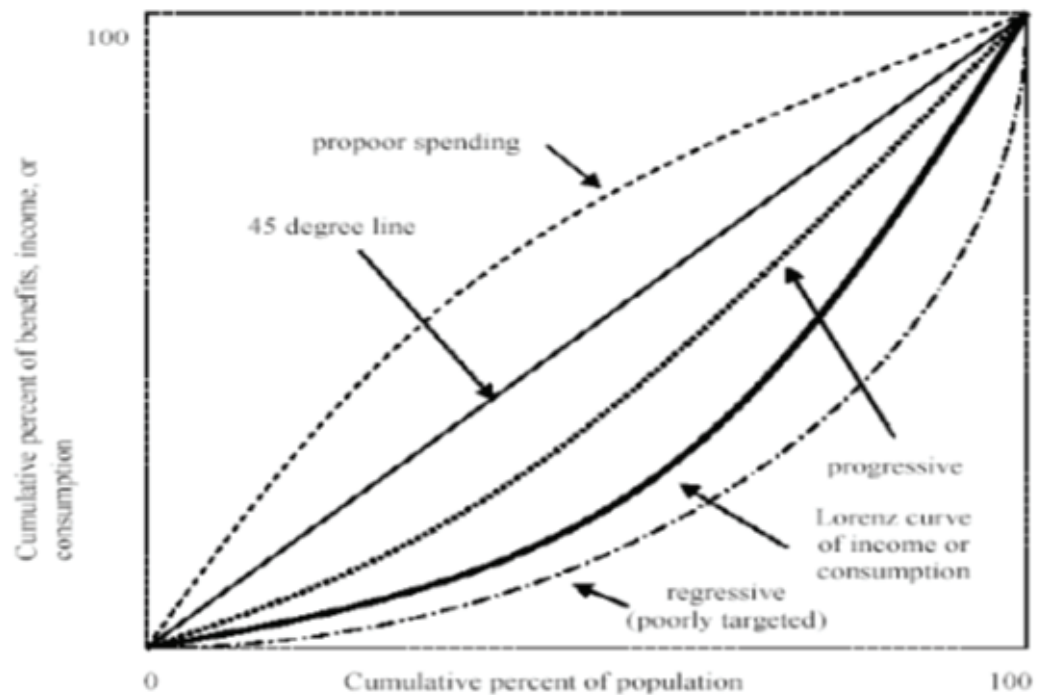
**Figure** 1: Lorenz Curve and Concentration Curve (Source : Cuenca (2008)).

curve is drawn by drawing a connecting line of the aggregate distribution of public expenditure on the horizontal axis against the aggregate distribution of population on the vertical axis. The diagonal indicates equality in the distribution of the subsidy. It indicates that 10 percent of the poorest population gets 10 percent of the subsidy, 20 percent of the poorest receive 20 percent of the subsidy; and so on.

The benefit concentration curve located above the Lorenz curve of income indicates that the subsidy provided by the government is relatively progressive towards income. The curve indicates that the 10% of the poorest population of the population gets a greater distribution of benefits than income. So, the distribution of subsidy is called to be progressive. On the contrary, if the benefit concentration curve is below the Lorenz Curve of income, government subsidies are regressive from income. So, the distribution of subsidy is called to be regressive (Cuenca, 2008).

## 3. Results and Discussion

The population of this study is poor people who receive Uninhabitable Houses Rehabilitation Program. The samples of this study are 66 respondents. Benefit Incidence illustrates how the distribution of the Uninhabitable Houses Rehabilitation Program in Grobogan District. In this study the distribution of the sample was divided into 5 groups (Quintile) based on the income level of each household. The distribution of

these samples can indicate who enjoy the most subsidy funds from the Uninhabitable Houses Rehabilitation Program.

Details of the Benefit Incidence Analysis calculation for Program Uninhatitable House are calculated based on the income level of the respondents. The data shows that income of espondents who receive Uninhabitable Houses Rehabilitation Program ranged from a minimum value of Rp. 700,000 and a maximum of Rp. 4,300,000 per month, but the respondents also stated that the income was not certain every month. Table 4 shows the detail of the level of income and Benefit Incidence

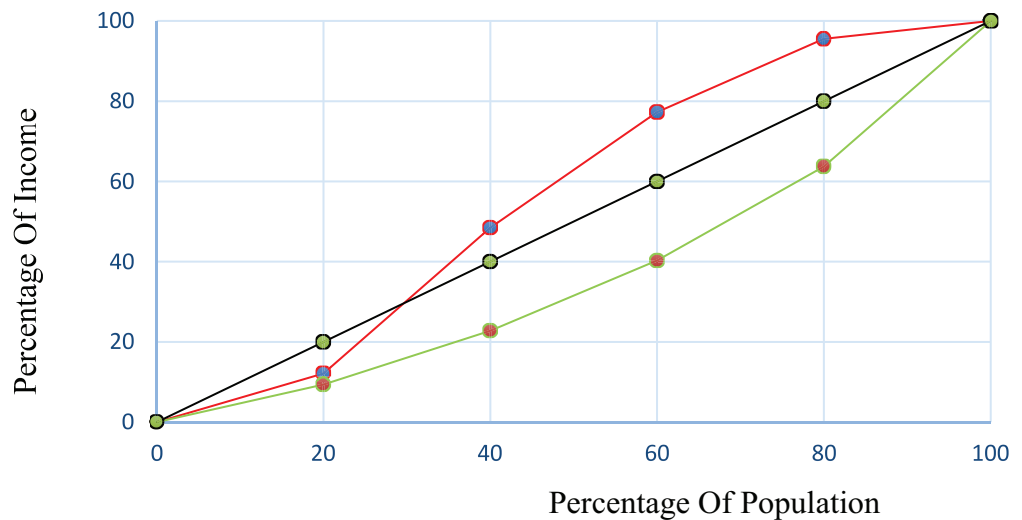TABLE 4: *Benefit Incidence* of Uninhabitable Houses Rehabilitation Program

| Quintile | Income Level (Rp) | Benefit Incidence | Accumulation |
|---|---|---|---|
| 1 | < 1,000,000 | 12.12 | 12.12 |
| 2 | 1,000,001 – 2,000,000 | 36.36 | 48.48 |
| 3 | 2,000,001 – 3,000,000 | 28.8 | 77.28 |
| 4 | 3,000,001 – 4,000,000 | 18.18 | 95.56 |
| 5 | > 4,000,000 | 4.54 | 100 |
| **Total** | | **100** | |

Source : Primary Data Prosessed, 2018

Table 4 shows that the groups that receive benefits the most are those with income of Rp. 1,000,001 to Rp. 2,000,000, i.e. 24 people or 36.36% of the distribution of benefits of social assistance. The group that receives the second most is the community with an income of Rp.2,000,001 to 3,000,000 (19 people or 28.8%) The group that receives the third most is a group with an income between of Rp. 3,000,001 to 4,000,000 (12 people or 18.18%). The community group that receives the fourth most is the community with an income of less than Rp. 1,000,000 (8 people or 12.12%) While the last group that receives the subsidy is the community with an income above Rp.4,000,000 (4.54%).

The progress of the Uninhabitable Houses Rehabilitation Program can be seen by the concentration curve formed from the calculation of Benefit Incidence Analysis, the curve is a picture of the cumulative distribution of government expenditure in the Uninhabitable Houses Rehabilitation Program compared to the income Lorenz curve in the form of respondents' cumulative income. Details of the curve can be seen in Figure 1. In the figure, the progress of the Uninhabitable Houses Rehabilitation Program is shown by the Benefit Incidence concentration curve, which is shown by a red curve that is compared with a 45° diagonal line as a perfect equality limit and compared to the Lorenz Curve.

**Figure** 2: **Curve Benefit Incidence Of Uninhabitable Houses Rehabilitation Program:** Note: Red line is Benefit Incidence concentration curve (Source : Primary Data Processed, 2018)

Figure 2 shows that the Benefit Incidence concentration curve intersects the diagonal line. The point below the diagonal line indicates that the lowest group received the benefits of the assistance more than 10%, i.e. 12.12% of the total funding of the Uninhabitable Houses Rehabilitation Program provided by the government. Although the poorest group does not receive the greatest distribution from the Uninhabitable Houses Rehabilitation Program, the program as a whole can be said to be a progressive policy in line with the target, because the majority of people are low income and middle to lower income groups, or the coverage area of the concentration curve in the diagonal line is greater than the area of the concentration curve below the diagonal line, in other words, that the benefits received by the rich are not greater than the benefits received by the poor. Uninhabitable Houses Rehabilitation Program is benefited to the poor, so it can be said that the program achieves the greatest coverage in the low income and middle-income groups down.

## 4. Conclusion

Based on the research conducted on the Benefit Incidence Analysis of Uninhabitable Houses Rehabilitation Program in Grobogan Regency, it can be concluded that Uninhabitable Houses Rehabilitation Program in Grobogan Regency is a progressive policy. It can be said as a progressive policy because those who get the assistance of the majority are low-income or middle-low people with income of Rp. 1,000,000 – 2,000,000 which is equal to 36,36% of the recipients.

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