



## IMPACT OF SOCIAL ASSISTANCES ON POVERTY AND INEQUALITY: RASTRA, PIP, AND PKH PROGRAMS IN INDONESIA

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### ABSTRACT

*Bantuan sosial menjadi salah satu strategi pemerintah dalam mengentaskan kemiskinan dan mengurangi ketimpangan. Artikel ini menganalisis dampak dan efektivitas berbagai alternatif kebijakan bansos terhadap pengentasan kemiskinan dan pengurangan ketimpangan di Indonesia serta menganalisis distribusi manfaat masing-masing kebijakan bansos di Indonesia. Analisis dampak dilakukan dengan metode benefit incidence analysis menggunakan data Susenas Maret 2017, sedangkan masalah-masalah di lapangan diketahui dari analisis literatur dan media masa. Hasil penelitian menyimpulkan bantuan sosial di Indonesia berdampak terhadap pengentasan kemiskinan dan pengurangan ketimpangan serta bersifat progresif absolut. Rastrea merupakan program yang paling mampu mengurangi angka kemiskinan dan ketimpangan dibandingkan PKH dan PIP. Meskipun demikian, dibutuhkan perbaikan lebih lanjut untuk mengatasi kebocoran dalam penyaluran bantuan sosial. Review atas literatur dan media masa menunjukkan masalah atas data penerima bantuan yang belum mutakhir dan penyaluran bantuan yang tidak sesuai ketentuan yang berlaku.*

Social assistance is one of the government's strategies in alleviating poverty and reducing inequality. This article analyses the impact and effectiveness of social assistance policies type on poverty alleviation and inequality reduction in Indonesia. besides, we analyzed the distribution of each social assistance policy benefit in Indonesia. The impact analysis was carried out using the benefit incidence analysis by using household surveys (Susenas) data in March 2017, while problems in the fields were collected from literature and mass media analyses. The results indicate that social assistance in Indonesia impacted on alleviating poverty and reducing inequality, as well as absolute progressive in nature. Rastrea is the ablest to reduce poverty and inequality compared to Paket Keluarga Harapan (PKH) and Program Indonesia Pintar (PIP). However, further improvements are needed to overcome the leakage in the distribution of social assistance. Literature and mass media reviews showed that data on recipients of social assistance were not up to date and disbursement of assistance violated existing regulations.

## 1. INTRODUCTION

### 1.1. Background of Study

According to Article 33 and 34 of the 1945's Constitution of the Republic of Indonesia, the state is responsible to protecting the whole nation of Indonesia and promote the general welfare in realizing social justice for all people of Indonesia. One of the government's strategies in realizing social welfare is to distribute social assistance (Act number 11/ 2009). Based on the Finance Minister Regulation (PMK) number 181/2012, social assistance (*bantuan sosial, bansos*) is assistance in the form of transferring money, goods, or services by the central/regional government to society for protecting society from the probability of social risk, increasing economic ability and promoting social welfare.

In spite of often considered as a political tool since directly interact with society (Sjahrir et al., 2013), well integrated and proper targeted social assistance have proved capable of alleviating poverty and reducing inequality (Barrientos, 2010; International Labour Organization, 2004; World Bank, 2017). Davoodi et al., (2003) revealed that a country with pro-poor education and health and expenditures has better education and healthy result, good management, higher income, and broader information access.

Although other government expenditures are also important to improve individual welfare, social service is considered as the most important, especially to increase the potential income of the poor including in Indonesia (Davoodi et al., 2003). Indonesia is one of the countries that carried out social assistance as a strategy in alleviating poverty and reducing inequality. Based

on Macro Economic Framework and Fiscal Policy Principles (*Kerangka Ekonomi Makro dan Pokok-Pokok Kebijakan Fiskal*, KEM-PPKF) 2018 and Finance Memorandum (*Nota Keuangan*, NK) 2019 data, as showed in Figure 1, social assistance budget increased continuously in the last four years. In 2019, it increased as much as 28.65 percent in 2019 from the Indonesian Budget (APBN) in 2018.

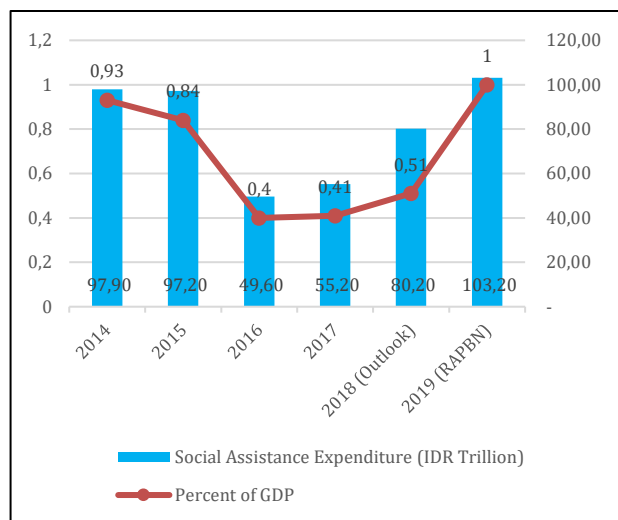


Figure 1. Social Assistance in Indonesia (2014–2019)

Source: Processed from KEM-PPKF and NK 2019

Although social assistance expenditures showed a significant reduction in 2016, according to the Monthly Report of Social Economic in 2016, social assistance is one of the factors that positively influence the reduction of inequality level in Indonesia in 2016. The significant reduction was caused by a sharpening of the target of social assistances receiver and reclassification of social assistance categorized as goods expenditure.

Based on BPS data that as shown in Figure 2, even though the government has been increasing social assistance expenditures in the last four years, poverty alleviation level in Indonesia is experiencing a slowdown and income inequality level in Indonesia is still high. According The Commitment to Reduce Inequality (CRI) Index 2018, Indonesia held level 90 of 157 countries and occupied level 98 of 157 countries related to government's social budget. Moreover, 24 percent of Indonesian live in poverty line and around 1.5 times of poverty line are susceptible to fall back be poor if they were in instability, for example being observed illness, disaster, or any other problem toward their income and their livelihood (World Bank, 2017). It indicates that continued improvement is still needed to increase the effectiveness of any social assistance program of the government.

Furthermore, the distribution of benefit is one of the problems in channeling social assistance Badan Kebijakan Fiskal (2016) shows that, in general, social assistance had been received by the poor and the vulnerable, but there were leaks in the distribution of

social assistance programs and implementation in the field that not in accordance with the provisions.

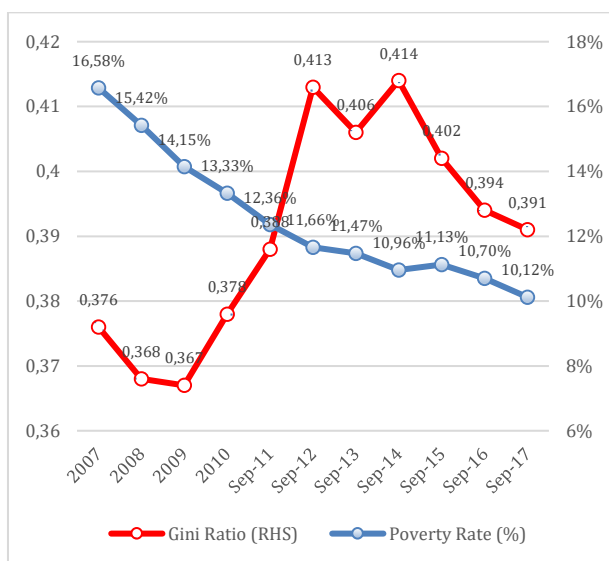


Figure 2. Poverty and Inequality Growth in Indonesia

Source: Authors calculation based on \*\*\*\*

Based on the previous explanation, research is necessary to assess the distribution of social assistance benefit as well as impact and effectiveness level of any policy alternative of social assistance towards alleviating poverty and reducing inequality and assess the benefit distribution of present social assistance in Indonesia. As far as the authors' knowledge, both topics are limited in the literature. This article aims at filling the aforementioned gap.

## 1.2. Problems and Objectives

Based on the explanation in the previous part, there are two problems that are going to be answered in this research. First, how are the impact and effectiveness of any policy alternative of social assistance towards alleviating poverty and reducing inequality in Indonesia? Second, how is the benefit distribution of each social assistance policy in Indonesia?

In line with the problems, there are three objectives in this article those are: (a) analyzing the impact and effectiveness of any policy alternative of social assistances towards alleviating poverty and reducing inequality in Indonesia, (b) analyzing the benefit distribution of each social assistance policy in Indonesia using benefit incidence analysis method (BIA) and, (c) identifying problems in distribution of social assistance benefit using systematic review of literature and news systematic review.

## 2. LITERATURE REVIEW

This part discusses the concept of social assistance, poverty and income inequality, and the impact of social assistance on:

## 2.1. Social Assistance

Social assistance is one form of social protection. International Labor Organization (ILO) in Gruat and Bonilla-Garcia (2003) defines social protection as any institution, norm, and public program aimed to protect society from economic and social pressure that threatened basic living standards in the case of absence or decrement of significant income. Barrientos (2010) classifies social protection into three types, social insurance, social assistance, and labor market regulation.

Until now there is no clear and universal definition to describe social assistance. According to Gough et al. (1997), social assistance in certain countries has a wide range of scope and was not based on income level, yet based on certain categories, such as an orphanage, immigrant, or age status. In some countries, social assistance includes temporary assistance as part of social insurance, in some other countries social assistance be part of extensive service in the form of goods or cash. Furthermore, Gruber (2012), divided welfare program into two kinds:

- a. Categorical welfare, a welfare program determined by some demographical characteristics such as widow or disabilities people.
- b. Means-tested welfare, a welfare program given based on income or number of owned property.

Those welfare programs can be given in the form of cash or in kinds such as medical assistance or residence.

Although each country has different social assistance, Eardley et al. (1996) stated that in general social assistance distribution covers three main principles, those are:

- a. The applied scheme aims to ensure minimum living standards for people with inadequate income.
- b. Social assistance receivers truly do not have the ability to support themselves adequately whether with other alternative ways or access to energy sources.
- c. The applied scheme does not aim to push dependency, yet has to support the receiver to be able to fulfill their sufficiency and independence.

A well-integrated and properly targeted social assistance are able to alleviate poverty and reducing inequality (Barrientos, 2010; International Labour Organization, 2004; World Bank, 2017). Davoodi et al. (2003) revealed that a country with pro-poor education and health budget expenditure has better education and health result, good management, higher income, and wider information access.

Atkinson (1987) classified social assistance distribution mechanism into three kinds, those are:

- a. Social assistance is allocated to people based on certain social category, that is accepted benefit does not relate to status or certain income level.
- b. Social assistance is allocated as social insurance, which is an accepted benefit based on employment status and contribution.

- c. Social assistance based on certain criteria or current owned resources (such as certain income levels).

In Indonesia, according to Act number 11/2009, social assistance is defined as social protection aimed in order that an individual, family, group, and/or society are able to live normally. Social assistance can be temporary and/or continuously in the form of assistance such as food, clothing, residence (temporary residence), cash, medical treatment and medicines, accessibility facilities (such as health and education), and/or institutional empowerment (Act number 11/2009).

The main programs of social assistance in Indonesia in 2017 are Family Hope Program (PKH), Indonesia Intelligent Program (PIP), Education Scholarship for Poor and Intelligent Students (*Bidik Misi*), and Prosperous Rice (*Beras Sejahtera*, Rastrea). Appendix 1 shows a number of recipients and the budget provided for each program. Rastrea becomes social assistance with the most significant increase in 2018, as much as 15,8 million receivers from the previous year merely 1,2 million receivers, and the budget allocation as much as IDR20,8 billion from the previous year as small as IDR1.7 billion. Then, PKH increased in receiver as much as 67 percent and in the budget as much as 33 percent in 2018. Even though PIP does not show a significant increase, it shows the widest coverage compared to other social assistance.

## 2.2. Poverty and Income Inequality

Poverty is a condition in which people are unable to fulfill their basic needs, whether it is food or non-food, specifically below the poverty line (Lisna et al., 2013). Poverty line (*garis kemiskinan*, GK) adds up two categories, i.e. Food Poverty Line (*garis kemiskinan makanan*, GKM) represent the basic need of beverage and food which equalized to 2,100 kilocalorie per capita per day and Non-food Poverty Line (*garis kemiskinan non-makanan*, GKNM) represents the minimum needs for residence, clothing, education, and health expenditures. People whose average expenditure per capita per month under GK is categorized as poor (BPS, 2019). The general poverty measurement used is the headcount index (Po) which was developed by Foster et al. (1984). The headcount index measures the proportion of people categorized as poor in the population (Haughton and Khandker, 2009).

BPS and World Bank classify Indonesian, in terms of her economy, into three categories (Kementerian PPN/Bappenas, 2017): (a) the lowest 40 percent of are classified as poor and susceptible poor people, (b) the next 40 percent are classified as middle-income, and (c) the top 20 percent are classified as rich. Further, the lowest 40 percent of people are part of Integrated Data Basis (*Basis Data Terpadu*, BDT) 2015, an electronic basis data contains information about poor and susceptible poor households (*rumah tangga*, RT) of

Indonesia. The data are designed especially for supporting ministries and agencies in program planning of social protection and poverty alleviation (TNP2K, 2017).

However, the concept of inequality is wider than poverty since it covers the whole population and does not only focus on poor people (Haughton and Khandker, 2009). Inequality is also can be used to measure relative poverty, poverty condition as the impact of development policy which does not equally reach the whole of people so that the income distribution is unequal (BPS, 2008). The General measure of inequality is The Gini index which was developed by Gini (1912). Gini index ranges between 0 which means perfect equality and 1 which means perfect inequality (Lisna et al., 2013).

### 2.3. Fiscal Policy Impact of Social Assistance

Fiscal policy is a budget policy by the government which consists of policy related to expenditure and tax structure (Froyen, 1996). Furthermore, fiscal policy instruments can be in terms of tax, government transfer, subsidy, and government budget (Reksoprayitno, 1992). Fiscal policy aims at influencing aggregate demand side in the short run and supply side in the long run (Surjaningsih et al., 2012).

Furthermore, Demery (2000) argued that there are some ways of public expenditures influence society. First, by means of fiscal policy that influences the balance of macro-economy, especially fiscal deficit, trade and inflation level. It directly influences living standards through real income and indirectly through the growth of economic development. Second, public expenditures affect income directly, some of them might be beneficial for poor people. This income, in turn, will create another income through multiplier processes. Third, public expenditures provide transfers to society. It can be in the form of money transfer such as assistance in payment of social insurance, or in the form of in-kind which includes government subsidy such as health, education, or infrastructure services.

Social assistance is one of the instruments of fiscal policy in the form of public expenditure or part of subsidy in general definition. Spencer and Armos (1993) defined subsidy in wider interpretation as government payment to a company or a household to accomplish a certain goal which allows them to produce and/or consume the product in greater number or cheaper price. Therefore, the main goal of the subsidy is to reduce the price or increase output.

The impact of the subsidy on consumption and production could be analyzed by using demand and supply curves as shown in Figure 3. Subsidy moves the demand curve from  $D$  point to  $D'$  and alters supply curve from  $S$  to  $S'$ . The subsidy given to consumers will affect the demand curve, while the subsidy given to producers will alter the supply curve. The result of both subsidies is new equilibriums are  $E'$  and  $E'$  which have a greater quantity of goods demanded or supplied

(Maipita et al., 2001). The increase in demand is accompanied by a higher price, while the increase in supply is complemented with a lower price.

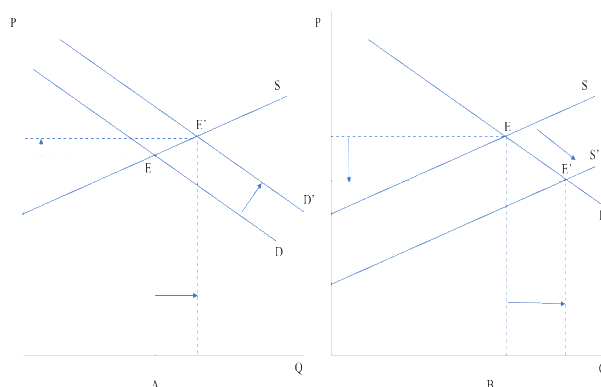


Figure 3. The influence of subsidy towards demand and supply.

Source: Adapted from Maipita, Jantan, and Razak (2001)

## 3. RESEACRH METHODS

This research is applied research that aims to answer the practical problem (Sekaran and Bougie, 2016), instead of to tackle the theoretical one. The approach used in this research is the combination of quantitative and qualitative approaches. The quantitative approach was carried out using the Benefit Incidence Analysis (BIA) while the qualitative approach was done by using the systematic review. The quantitative approach was implemented first and then a qualitative approach was used to explain the quantitative results. A further explanation for both methods is as follows.

### 3.1. Benefit Incidence Analysis (BIA)

Benefit Incidence Analysis (BIA) is a tool which is used to measure the impact of tax policy or government subsidy on the distribution of people welfare. In other words, BIA can be used to evaluate the distribution of subsidy policy or government social expenditure to various income groups in society (Cuenca, 2008). The result of BIA analysis could determine whether the government program of social expenditure is a good target, namely the benefits are received by a group of society with lower income. If the poorest group as the main target of government social budget only enjoys the little of the budget benefits, and substantial amount of the benefits received by middle and high-income classes, then the government's social assistance policy can be categorized as a failed program (McIntyre and Ataguba, 2010).

The final results of BIA could be interpreted by comparing the concentration curve that shows the result of benefit distribution among the group of a public service user with a diagonal line 45 degree. In addition, the results can also be compared to The Lorenz curve. Figure 4 shows the concentration curve, Lorenz curve and various benchmarks to assess distributional impacts of a policy.

The concentration curve is a curve that describes



the progressivity of a tax or social assistance by comparing the distribution of cumulative benefit and distribution of cumulative market income (Inchauste et al., 2015). Furthermore, the Lorenz curve is a curve that describes the distribution of cumulative income in various population groups (Gastwirth, 1971).

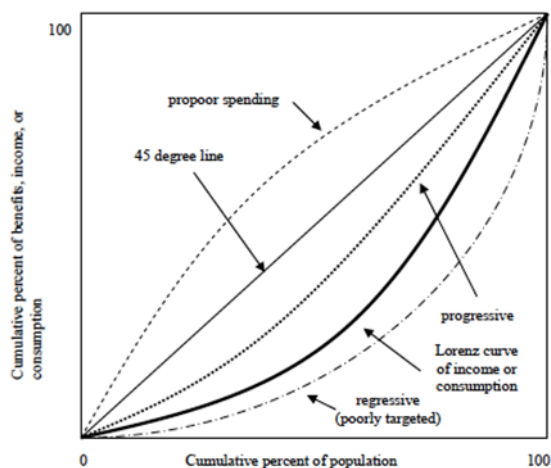


Figure 4. Concentration curve for government spending and various benchmarks

Source: Davoodi, Tiongson, and Asawanuchit (2003)

Several rules to use concentration curve to assess distributional impacts are as follow (Demery, 2000):

- When the concentration curve is above the 45-degree diagonal lines, the poorest quantiles receive more than 20 percent of the total social assistance while the richest quantiles receive less than 20 percent of the benefits. Then the social assistance can be categorized as pro-poor spending. The distribution above the diagonal line is called "absolute progressive" distribution which means that the lower income group of society receives government spending benefits greater than the higher income group of the society (Cuenca, 2008).
- When the concentration curve is above the Lorenz curve and under the 45-degree diagonal lines, the distribution is "relatively progressive" towards income (or spending). It indicates that the distribution will be fairer when the assistance is given in the form of income (cash) rather than in-kind transfer.
- When the concentration curve is above the Lorenz curve, it indicates that the distribution is "regressive". It means that groups of people with middle and high incomes enjoy larger benefits of government assistance than a group of people with lower income (Cuenca, 2008).

By considering these categories, this research expects that the results of the BIA of Indonesia's social assistance show absolute progressive results.

Quantitative data used in this research is secondary data from secondary sources (Bungin, 2005). The data used in this research adopted from a household survey (Susenas) in 2017 which carried out by BPS in 34 provinces and covered 300,000

households in 514 districts/cities in Indonesia. A computer program used in data analysis was Stata 14.

When presenting the results of analyses, discussions are directed toward (1) the proportion of social assistance benefits received by the lowest and the highest income group and (2) the number of recipient households in the lowest and the highest income group. In addition, discussion on the benefit distribution analysis will also take into account the percentage of social assistance related to households' expenditure, both in the lowest and the highest income groups.

### 3.2. Qualitative Systematic Review

A systematic review is an instrument or scientific method which is transparent and replicable. This instrument is used for collecting the whole empirical evidence that is appropriate according to the previously determined eligibility criterion to answer a certain research question. Systematic review minimalizes bias through comprehensive literature searching of published and unpublished previous studies by giving attention to the resource, procedure, or reviewers conclusion and therefore could produce trusted results (Cook et al., 1997; Green et al., 2011). A systematic review which not combining summary results with the statistic is called qualitative systematic review, whereas when the study result is combined with the statistic is called quantitative systematic review or meta-analyses (Cook et al., 1997). The difference between a systematic review and traditional or narrative review is shown in Appendix 1.

In a systematic review process, protocol arrangement is one of the important components. It ensures the systematic review is well documented and based on careful planning. It creates consistency, accountability, integrity, and transparency (Moher et al., 2015). The systematic protocol review used in this research was Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) developed by Liberati et al., (2009).

PRISMA is an evidence-based minimal tool used in the reporting of systematic review and meta-analysis results. It focuses on the reporting of systematic review results of a randomized trial and also able to be used as a basis of reporting the results of a systematic review of other kinds, especially concerning the evaluation of an intervention (Ottawa Hospital Research Institute and University of Oxford, 2015). PRISMA protocol is capable to produce transparent and complete systematic review report (Handayani et al., 2017).

Based on PRISMA reporting guidance, there are some steps in protocol arrangement namely: (a) defining eligibility criteria, that is specifying study and report characteristics which can be used as criteria to choose them, such as topic, study design, publication year, etc.; (b) defining information sources, namely describing the whole information which is used in the research and the last date of resource inquiry; (c) study

selection, namely recording relevant or irrelevant information; (d) data collecting, namely describing data extraction method as well as data gathering and confirming process; (e) data selection process, i.e. list and decide all variables, assumptions, and then make simplification (Liberati et al., 2009; Solikin, 2018).

Qualitative information sources for systematic review methods were from national and international published articles. The main information sources were from the international journal databases such as Scopus, Science Direct, and Google Scholar. National information sources are from garuda.risetdikti.go.id and any other online news sites in Indonesia.

Concerning online new sites, they were limited to five online information sites which have high traffic web based on Alexa.com, i.e. a commercial data providing company focused on web traffic. According to Alexa.com, five information sites with the highest traffic web in Indonesia in 2018 were Detik.com, Tribunnews.com, Kompas.com, Liputan6.com, and Tempo.co. The keywords used in literature searching were: *Beras Sejahtera*/Rastra (Prosperous Rice), *Program Indonesia Pintar*/PIP (Indonesia Intelligent Program), and *Program Keluarga Harapan*/PKH (Family Hope Program).

The literature and news were used as explanation sources for possible problems and shortcomings in various areas in Indonesia regarding the social assistance programs. The problems were discussed shortly after presenting the quantitative results of BIA.

## 4. RESULTS AND FINDINGS

### 4.1. The Impact and Effectiveness of Social Assistance toward Alleviating Poverty and Reducing Inequality

Based on the result of the 2017 Susenas data analysis to evaluate the impact and effectiveness on giving several kinds of alternatives of social assistance toward Alleviating Poverty and Reducing Inequality in Indonesia, as more thoroughly shown on Appendix 2, it can be inferred that social assistance programs in 2017 reduced poverty as much as 1.39 percent and inequality as much as 0.0057 point. Consider one of the social assistance towards poverty and inequality namely Rastra. It produced the highest impact, i.e. reducing poverty as much 0.63 percent and inequality as much as 0.0028 points. Furthermore, the policy which result in the lowest impact is PIP. From the combination of two policies, Rastra and PKH combination result in the highest impact compared to two other combination policies (i.e. Rastra-PIP or PIP-PKH) by reducing poverty as much as 1.11 percent and decreasing inequality by 0.0046 points.

Furthermore, from the effectiveness aspect of reducing poverty and inequality in Indonesia, the most effective social assistance policy is PKH. On the other hand, the most ineffective social assistance policy is Rastra. The existing social assistance combination (namely Rasta, PIP, and PKH are given together to the society)

produces worse effectiveness levels compared to other policy alternatives, such as PKH only, PKH and PIP, and PIP only.

However, social assistance does not automatically alleviate poverty and reduce inequality. Based on research on a low-middle income country in transition, i.e. Azerbaijan, there is not enough empirical evidence to claim that social assistance able to alleviate poverty and reduce inequality (Habibov and Fan, 2006). It was caused by several factors, such as the social assistance benefit is very small and the poor people only received a small portion of the benefits. In addition, the design of the social assistance program is not specifically designed to alleviate poverty and reduce inequality, and the economic scale of the transition country made it difficult for the government to identify the poor as recipients of the social assistance program. Furthermore, Abed and Gupta (2002), Rajkumar and Swaroop (2008), and (World Bank (2004) stated that one important of the success factors of government social assistance budget in reaching the expected result is good management. Without good management, the social assistance program could not achieve its intended aims.

### 4.2. The Analysis of Benefits Distribution of Each Social Assistance Policy

To find out the benefit distribution of social assistance of each program namely Rastra, PIP, and PKH, it was carried out an analysis of benefit incidence for each program as follows:

#### 4.2.1. Rastra

Based on the analysis of the Susenas data, the benefit of Rastra subsidy from the government is much more enjoyed by poor people.

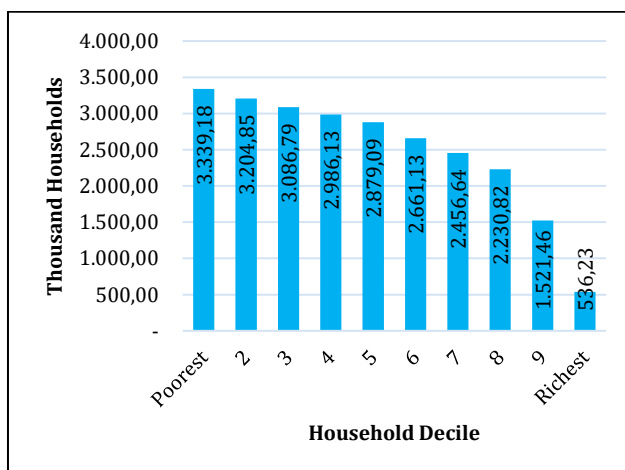


Figure 5. Household Decile of Rastra Recipients

Source: Processed from Susenas 2017 data

However, further examination reveals some interesting results. First, from the total recipient of Rastra subsidy i.e. 25 million households, as much as 51 percent (i.e. equal to 12 million households) belong to 40 percent lowest income group, i.e. poor and

susceptible poor people, while the 20 percent of highest income which comprises as much as 8.26 percent or 2 million households received Rastra subsidy.

Furthermore, from the total budget of Rastra subsidy of IDR1.18 billion about 51.96 percent (or equivalent to IDR614 billion) was received by the 40 percent of lowest income group, while the 20 percent of highest income group received 7.71 percent (or equal to IDR91 billion) of Rastra subsidy. Besides, according to General Guidance of Rastra Subsidy 2017, Rastra is intended to the lowest 25 percent of income group. In fact, this true target receiver only receives 33.73 percent of the total distributed assistance. Regarding the role of social assistance toward the household's budget, as shown in Figure 6, poor households received a bigger portion than the rich households. Specifically, The Rastra subsidy contributed to 2.8 percent of the average spending for the lowest 10 percent income group and merely 0.06 percent to spending an average of the top 10 percent of the rich group. The 10 percent of poor group on average received Rastra subsidy as much as IDR51,140.00 per month, while 10 percent of rich household group received IDR42,837.00 per month. Principally the subsidy from the government per month was IDR114,300.00. The amount of Rastra for the lowest and the highest income groups does not differ much in Rupiah however, the proportion of Rastra to household expenditure differ substantially due to a substantial difference in income between the two groups.

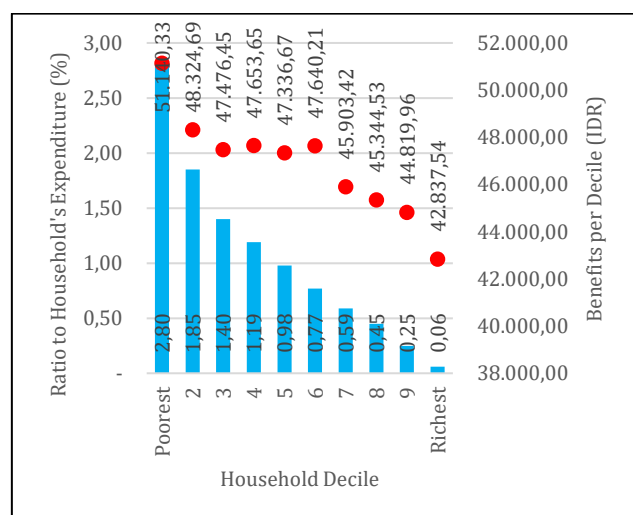


Figure 6. The benefit number average of Rastra received by households  
Source: Processed from Susenas 2017

From the review of related literature and mass media, the main problems in distributing Rastra are the inappropriate receiver, late disbursement, less amount of rice received, and low quality of rice (Rachman, Agustian, and Wahyudi, 2018). The inappropriateness of Rastra receiver, meaning that the receiver is not the income group or person intended by the program, was

due to the fact that the database of receivers was not periodically updated. Based on the General Guidance of Rastra Subsidy 2017, the distribution and the transfer of Rastra carried out by distributor to recipient households (*Keluarga Penerima Manfaat*, KPM) which listed on the Benefit Receiver List (*Daftar Penerima Manfaat*, DPM) in a certain area. DPM is the result of updating of Integrated Database (*Basis Data Terpadu*, BDT) 2015 which also be adapted with other various data such as Data Collecting of Social Protection Program (*Pendataan Program Perlindungan Sosial*, PPLS) 2011, Raskin (Rice for poor people), Contribution Assistance Receiver (*Penerima Bantuan Iuran*, PBI) of National Health Assurance (Jaminan Kesehatan Nasional, JKN) program, Social Protection Card (*Kartu Perlindungan Sosial*, KPS), and Family Hope Program (PKH). In addition, BDT was calibrated with Susenas 2011 to 2014 to get the monthly data of household spending (TNP2K, 2017). All procedures aim at selecting appropriate recipient households, yet the literature is rich in report on the inappropriateness of the Rastra's recipients.

Changing or updating of Rastra Receiver List (DPM) was mandated to regional governments which carried out by means of Village Discussion (*musyawarah desa*/Musdes or *musyawarah kelurahan*/Muskel) in the implementation year or Rastra's realization year. Households deleted from the recipient list are those who migrate to another village/region, households whose the whole family members passed away, and households which not appropriate anymore to receive Rastra based on the evaluation by Musdes/Muskel. However, in practice the problem happened because numerous and complex evaluation criteria used in Rastra guidance and in determining poor households in a certain areas often make it complicated to determine Rastra household recipients. It turns out that the decision of Musdes/Muskel becomes more subjective (Angrawati et al., 2016; Berliana et al., 2018; Dewi and Ariyanto, 2015; Saputra et al., 2018).

Other problems concerning Rastra distribution are late disbursement, the fewer amount of rice received than the regulation, and the low quality of rice. The research in Merak Ulu Village, West Kutai, found Rastra distribution carried out every three to six months, while the regulation urges the distribution is every month. Therefore, once the people received 90 kg of rice, due to the late disbursements in the preceding months. Some poor people then used the rice assistance not for own consumption but used it for feeding animals or resold it (A. E. Saputra et al., 2018). The lateness and unspecified time of distribution also happened in Sungi Lengkop Village, Bintan District (Juwita, 2016).

In a study of 22 subdistricts in Bandung, Makassar, Surabaya, Jakarta Barat, and Bekasi (Rachman et al., 2018), Rastra was distributed every two to three months; whereas regulation stipulates it should be disbursed every month. As for distribution procedure,

Perum Bulog is responsible for supplying and transporting of Rastra rice from warehouse until point of distribution (*Tempat Distribusi*, TD); while transportation from TD to point of sharing (*Tempat Bagi*, TB) is responsibility of local government which is usually carried by Acting Distributor of Rastra (*Pelaksana Distribusi Rastra*).

In addition, it is also concluded that amount of rice that should be received by household is 15 kg/month and sold at IDR1,600/kg, yet their results showed that households only received 4–6 kg/month and sold at IDR2,000/kg. Based on the result of data processing of Susenas 2017, the average of the purchase price for Rastra rice is IDR2,000,00.00 per kg and people on average buy Rastra rice as much as 6.5 kg per month out of 15 kg provided by the government. It should be noted, however, that the allocation of as much as 15 kg per household is for every KPM without considering the number of family members of a household.

In principle, the purchase price of Rastra rice (*Harga Tebus Rastra*, HTR) by household is as much as IDR1,600.00/kg. However, based on the General Guidance of Rastra Subsidy 2017, there are probabilities and are allowed to add additional distribution costs from TD to TB. If the additional costs are not or less allocated in the regional government budget (APBD) then the costs could be burdened to the people voluntarily, while Rastra Distributor can only pay and transfer is as much as official Rastra rice (HTR). The addition of Rastra transportation cost might cause an unmeasurable increase of Rastra rice price and finally reducing the capacity of poor people to purchase Rastra rice, i.e. by purchasing less amount.

Furthermore, still based on the research of Rachman et al. (2018), 51 percent of respondents revealed that Rastra rice quality needs to be enhanced. One of the factors of the reduction of rice quality is the storage duration of rice in the warehouse. Based on the information of Detik.com (2018a, 2018b), the result of the evaluation carried out by Perum Bulog in 2018, it is found that the rice had been stored for 1.5 years which ideally it stored maximum for 4 months.

As shown in Appendix 1, in 2018 the government enhanced significantly both the number of recipient households as well as the budget allocated for Rastra but with a different scheme. From the total 15.8 million eligible households, as much as 10.2 million households receive assistance in the form of NonCash Food Assistance (*Bantuan Pangan Non Tunai*, BNPT) and the rest as much as 5.6 million households (35.44%) received assistance in the form of Rastra. Based on the general Guidance of Rastra Subsidy and BNPT, BNPT benefit is IDR110,000.00 per household per month which is exchangeable with rice and/or egg as necessary in *e-warong*, while Rastra is distributed every month as much as 10 kg without requiring any cost.

Basically, the BNPT distribution has been carried out in 2017 in 44 Cities which have adequate access

and facilities (Kementerian Sosial, 2017). Based on the comparative research on consumers' satisfaction between Rasta and BNPT in a sub-district with the highest number of receivers in East Jakarta, it can be concluded that the consumers' satisfactory percentage of BNPT is higher than that of Rastra consumers (Junaidi et al., 2017). However, *e-warong* readiness, telecommunication signal in the whole region, receiver target, and the quality of rice are some identified problems which were necessary to overcome. As other research has been discussed previously (Rachman et al., 2018), the results underscore the need to update recipient data and rice quality.

#### 4.2.2. PIP

On the national level, PIP benefits are much more enjoyed by poor people. Based on the result of data analysis as shown in Figure 7, from the total benefit of PIP from government budget as much as IDR432 billion, as much as 58.5 percent (or equivalent to IDR253 billion) were received by poor people group. In addition, the top 20 percent of rich people received merely 5.8 percent (or equivalent to IDR25 billion) of PIP benefit from the government budget. Regarding recipient number, from the total recipients of PIP benefit that is as much as 6.7 million households, very high percentage (i.e. 57.8 percent of recipients or equivalent to 3.9 million households) belong to 40 percent lowest income group, while about 400 thousand of households (or about 6 percent of recipients) belong to top 20 percent of rich group also received PIP benefits.

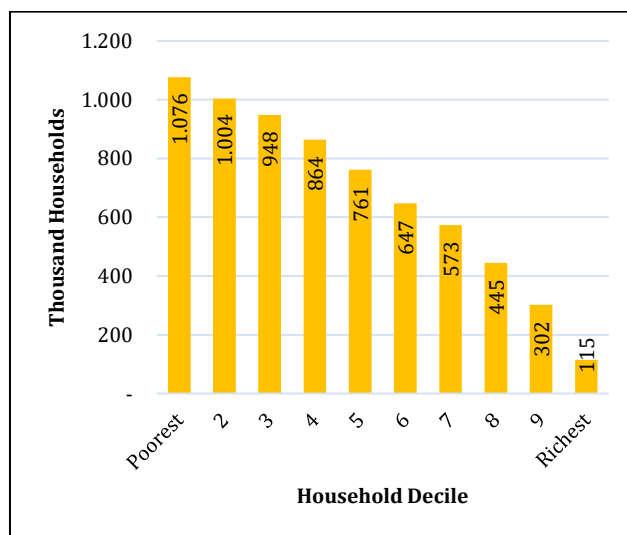


Figure 7. Decile of PIP benefit recipient households  
 Source: Processed from Susenas 2017

Regarding the proportion of PIP benefits toward household spending, as shown in Figure 8, poor households received a bigger portion than the rich households. PIP benefit contributes to 0.8 percent of average households' spending of the lowest income group, meanwhile it contributes to merely 0.01 percent of expenditure of the top 10 percent of rich people



group. In terms of monetary value, the lowest 10 percent of poor people group on average received PIP benefits as much as IDR65,237.00 per month, while the top 10 percent of the rich people group received IDR61,744.00 per month. Although in monetary terms, the average PIP benefit does not much difference between the poorest and the richest households, in terms of percentage the gap differs by eighty times due to a significant difference in expenditure between the two groups. In addition, the insignificant contribution of PIP towards poor households' average spending compared to other social assistance indicate that it might be necessary to reconsider adding more benefits to PIP assistance.

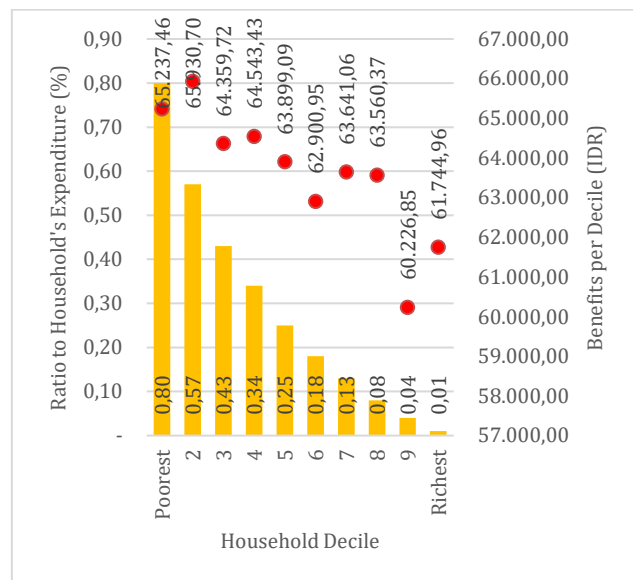


Figure 8. The average of PIP benefit received by a household  
Source: Processed from Susenas 2017

Results from a review of the literature show that the main problems of PIP distribution, based on the observation in several regional governments, include (1) concerning inaccuracy in determining of PIP assistance recipients and (2) inappropriate use of PIP funds. For example, research of Septiandika (2017) in SDN Jrebeng Wetan, Probolinggo, East Java concludes that PIP assistance utilization in the school is unoptimized to fulfill students' school needs. In addition, recipient data of PIP assistance is not up to date. The similar conditions were also observed in the research of PIP benefit utilization in several levels of education in several regions such as Ngrayu Village Ponorogo, Sukomulyo Village Penajam Paser Utara district, Mojokerto district, Jogosatru subdistrict Sidoarjo, Gebog subdistrict Kudus, Sungai Pinang Subdistrict Samarinda, Semin subdistrict Kudung kidul, and Tanjung City Pinang Timur. The results of the research generally revealed that PIP fund was not fully utilized to fulfill the students' school needs as stipulated in the regulation. Similarly, those research also found that the PIP assistance recipient data had not been updated regularly (Astuti, 2017; Hasan, 2017;

Lusiana, 2018; Saraswati, 2017; Sari, Kustiawan, and Riyadi, 2016; Wulansari et al., 2017; Zulvia and Suyanto, 2017).

Based on those researches, the recipient data was not updated since Village Offices which collected the data of poor people in the respective village generally did not update the poor people data regularly. Meanwhile, the regional government frequently used village office's data without further validation. In addition, students' parents who basically do not belong to poor people category deliberately enlist themselves as poor family, so that the schools get additional tasks to re-verify the worthiness of the PIP recipients.

Based on those researches, several causes were identified as culprits why PIP assistance did not fully utilize to fulfill the school needs of the students. Rooted in the family background of PIP assistance recipients who are poor people so that the assistance fund was utilized to pay debt, installment, or other family expenditures, instead of being used to support children education. In addition, parents lack awareness on school needs or the importance of education for their children, parents' consumptive behavior, bad finance management of the family, the lack of socialization from government (Hasan, 2017; Saraswati, 2017), as well as the absence of control mechanism to ensure proper PIP fund utilization are some causes of misuse of PIP assistance fund.

#### 4.2.3. PKH

At the national level, PKH assistance benefits are received much more by poor people. As shown in Figure 9, from 3.5 million of PKH recipients, as much as 67.5 percent (or 2.3 million households) belong to the poor category and only 3.4 percent (or 110 thousand recipients) are the top 20 percent rich. From the total PKH benefit as much as IDR556 billion, the lower 40 percent of income groups receive 67.46 percent (or equivalent to IDR375 billion), while the top 20 percent of rich people group receive simply 3.14 percent (or about IDR17 billion).

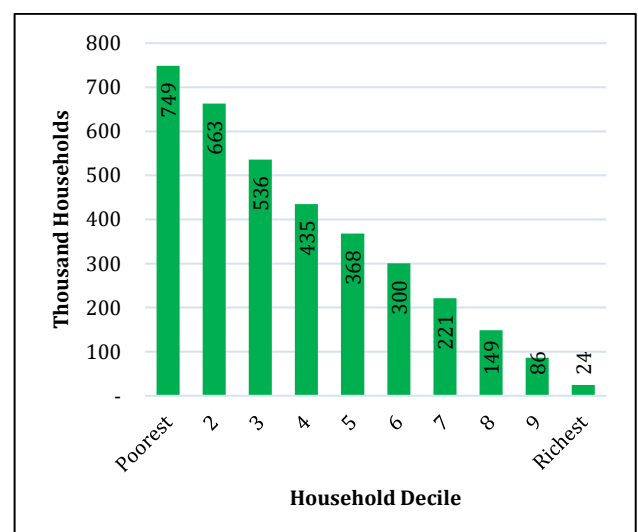


Figure 9. Household Decile of PKH Benefit Receiver  
Source: Processed from Susenas 2017

In addition, as shown in Figure 10, PKH benefit contributes to around 1.54 percent of the average spending of the lowest 10 percent of poor households group; while it only contributes merely 0.01 percent to the top 10 percent spending of rich household group. In terms of money, each group of the household received the benefit as much as IDR157,500.00.

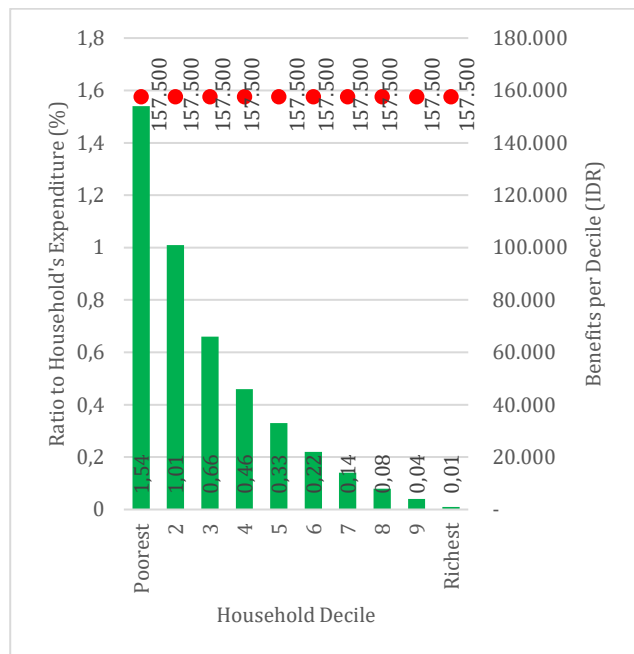


Figure 10. The average of PKH benefits scale received by households.

Source: Processed from Susenas 2017

Based on the problem identification by using systematic literature review on PKH in several regional governments such as in Bunaken sub-district Manado City, Pare Kediri, Buleleng Bali, Rejotangan Tulungagung, Tayu Pati, Sintang, Malang, North Bogor sub-district Bogor, Jetis Bantul, Pidie Banda Aceh, and Boja Kendal, it can be concluded that PKH distribution run well, namely the process is implemented according to the rule and the Act. Based on the previous researches the PKH distribution significantly contribute toward families' welfares, positively impact toward students achievement and motivation, and able to change society's awareness toward education and health (Aminuddin, 2016; Anneke et al., 2017; Ayurestianti, 2017; Dehani et al., 2018; Indriani, 2017; Lidiana, 2017; Lutviasari and Setyowani, 2016; Mudawamah, 2016; Permana et al., 2018; Roidah, 2016; Suparno et al., 2018).

The main problems of PKH distribution such as in Subdistrict Bunaken of Manado City, Malalayang Subdistrict of Manado City, Subdistrict Mojoanyar of District Mojokerto, Subdistrict Pasan of District Minahasa Tenggara, and Subdistrict Tembilahan of District Indragiri Hilir are two folds. First, recipient data had not been updated regularly due to the fact that unavailability of the system which can facilitate recipient data to be updated periodically. Second, PKH assistance was not fully utilized to support the daily

needs of children. The problem is caused by the unavailability of the control system to ensure assistance utilization is properly utilized. Moreover, the lateness of distribution and un-optimal socialization are also two problems observed in several regions (Anneke et al., 2017; Laoh, Sendow, and Tarore, 2016; Londah et al., 2018; Murib et al., 2018; Prakoso and Handoyo, 2016; Y. Saputra, 2017).

#### 4.2.4. National Level Observation

Even though previous studies and mass-media show several problems in social assistance distributions, especially on the concentration curve (See Figure 11), we find that Rastra, PIP, and PKH are absolute progressive assistances since concentration curves of Rastra PIP, and PKH are all above the 45 diagonal lines. Thus at the national level, lower income people receive the benefits of government social assistance budgets greater than higher income households. From Figure 11, it is also shown that PKH is the most well-enjoyed assistance, i.e. the lowest 40 percent of the poorest people received as much as 67.5 percent of benefits. Moreover, PIP ranks second since as much as 58.5 percent of its benefits received by the lowest 40 percent, and Rastra is the least absolute progressive since as much as 51.96 percent of its benefits received by the lowest 40 percent income group.

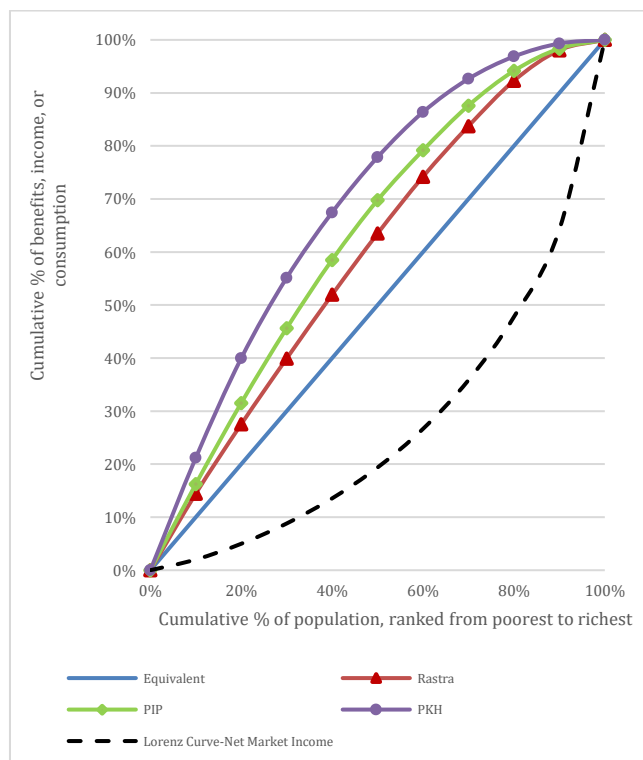


Figure 11. National Concentration Curve

Source: Processed from Susenas 2017

Regarding the role of social assistance toward household's expenditure, Rastra subsidy gave the highest contribution, i.e. about 2.8 percent of households' expenditure of the lowest 40 percent of the

lowest income group. Meanwhile, the PIP gave the lowest contribution to average households' spending, i.e. only 0.8 percent of the lowest 40 percent income group. The main problems in the social assistance distribution of Rastra, PIP, and PKH in Indonesia are (1) the recipient data had not been regularly updated and (2) utilization of social assistance is not as proper as regulation intend.

## 5. CONCLUSIONS

Based on the previous discussion, we conclude that social assistance in Indonesia is beneficial for poverty alleviation and inequality reduction. In the national level, in 2017 social assistance policy reduces poverty index and inequality index as much as 1.39 percent and the inequality index as much as 0.0057 respectively. Rastra program is the most effective social assistance in alleviating poverty and reducing inequality, i.e. by reducing as much as 0.63 percent of poverty index and 0.0028 points of Gini ratio. On the contrary, the PIP program has the lowest capability in reducing the number of poverty and inequality by the magnitude of 0.28 percent changes in poverty number (i.e. 2.25 times lower than Rastra program) and 0.0011 points of Gini ratio (i.e. 2.55 times lower than Rastra program).

In terms of effectiveness level, PKH policy provides the highest effectiveness level and Rastra delivers the lowest effective level rather than other policy alternatives. Based on the benefit distribution at the national level for each social assistance policy, it is concluded that Rastra, PIP, or PKH are all absolute progressive assistance (or pro-poor spending), meaning that proportion of social assistance benefits received by lower income people are higher than those for the high-income people. However, several studies documented the leakage of social assistance distribution in Indonesia. Compared to other social assistance, Rastra is the lowest program absorbed by the lowest 40 percent of poor people, i.e. only 51 percent of the total assistance, while the top 20 percent of the rich group of people received 8.26 percent of the assistance benefits. The average number of benefits per month received by the lowest 10 percent of the poor group of people is as much as IDR51,140.33 while in principle the government allocates as much as IDR114,300.00 per household. It indicates that the problem exists in the Rastra distribution mechanism because only 44.74 percent of Rastra benefits were actually landed in the poorest people's pockets.

Moreover, PIP shows the lowest impact on alleviating poverty and reducing inequality in Indonesia. Based on the analysis results, PIP assistance only contributes as much as 0.80 percent toward household spending. The low proportion of PIP contribution toward the average spending of poor households compared to other assistance programs indicates the necessitate need of re-adaptation to the monetary value of PIP assistance.

Furthermore, PKH is an assistance program with the highest absorption by the 40 percent of poor people

by as much as 67.5 percent, while the top 20 percent of rich people only received 3.14 percent of total benefits. The average monetary value received by the 10 percent of the poor group is as much as IDR157,000.00 which is in accordance with subsidy allocation from government. It indicates that the distribution system is excellent. Moreover, based on the systematic review, some problems in Rastra distribution at the national level are un-properness of recipients, late disbursement, and low quality of rice due to long time storage. Problems in PIP and PKH distributions at the national level are unproperness of recipients and the assistance funds were used to finance spendings which are different from proper spendings as stipulated by regulations.

## 6. IMPLICATIONS AND LIMITATIONS

### 6.1. Policy Implications

The existing combination of social assistance policies (i.e. Rastra, PKH and PIP) provides the lowest number of poverty and inequality rather than other policy prescriptions. However, Rastra generally was only received by less than 50 percent of poor people whether at the national or provincial levels, yet is capable of giving a significant impact on poverty and inequality reductions. Therefore, it warrants further investigation especially to ensure that the distribution mechanism works properly in targeting poor people.

The distribution of PKH benefit is good, as proved by PKH benefit utilization as much as 68 percent and the average benefit received by poor people is in accordance with subsidy allocation from government, i.e. exactly as much as IDR157,000.00. Therefore, further investigation on PKH budget allocation for society is necessary, especially to inquire whether total budget for PKH should be enlarged by considering its effectiveness and good benefit distribution mechanism. Furthermore, the deeper investigation of PIP is also necessary since its impact on poverty and inequality is trivial. Thus, to create greater impact toward poverty and inequality alleviations, the deeper investigation should be centered towards (1) distribution mechanism in the case of Rasta, (2) total budget allocation for PKH, and (3) both mechanism and total monetary budget in the case of PIP assistance.

The problems in the form of improper assistance recipients become an obstacle to the Rastra, PIP and PKH program. It was caused by the fact that benefits recipient data were not updated regularly and the updating procedure by regional governments consist of subjectivity. It turns out that the subjectivity stems from complicated recipient criteria and to avoid social jealousy (and hence the social assistance were also distributed to other people who were not eligible). The problem can be resolved using an easy and objective system, such as the Simple Additive Method (SAW). Previous researches (Berliana et al., 2018; T. P. Handayani, 2017; Sofyan et al., 2016; Subagio et al., 2017; Susanti, R, and Hanum, 2018) concluded that

SAW method is an easy method and applicable in deciding assistance recipient.

The problem of the low quality of rice and the lateness of distribution are found in Rastrea assistance. It can be resolved by using good management of rice distribution and should be documented in the form of the standard operating procedure (SOP) starting from the reception, storage, and distribution of rice. In the reception phase, Perum Bulog should plan a volume of rice needed by taking into account budget allocation and available supply. In the storage phase, based on an explanation of the Head of Perum Bulog on Detik.com (2018a, 2018b) ideal time for rice storage is a maximum of four months, so it is necessary to commit to procedure or stipulation regarding rice distribution. Besides, to maintain the rice quality, water content in the rice should be less than 14 percent and the air humidity should be maintained low, i.e. 65 percent or less. The water content and humidity limits are important to reduce the activity of microbes and fungi as well as reducing water vapor absorption from the air to the rice (Ratnawati et al., 2013). Concerning rice distribution, Perum Bulog may carry out Rastrea distribution using advanced logistic tools such as ant colony optimization algorithm (Suliantoro et al., 2016) or MODI (modified distribution) and VAM (Vogel approximation method) methods (Azizah and Suryawinata, 2018) to minimize the distribution distance and cost of Rastrea. The proper distribution of Rastrea could be expected to minimize reselling Rastrea rice or to utilize it as animal feed.

Regarding problems in PIP distribution, i.e. parents using the money to purchase other goods instead of books or other school tools, the government could apply a control system by obligate students and parents to show or hand over payment receipts as a precautionary. If students and/or parents could not present the evidence, PIP assistance distribution could be revoked to the student. In the case of PKH, if the number of program's assistance or associates is much fewer than the number of recipients, the government may cooperate with universities and/or Non-Governmental Organizations (NGOs). Concerning distribution lateness, the government is expected to plan well in advance and to use an automatically scheduled disbursement system.

## 6.2. Limitations

Some limitations in this article are explained as follows. First, this research uses a measure of effectiveness level as shown in Figure 4 and Figure 11. The measurement method has a weakness since it can not inform the proper or optimal scale of social assistance budget from the government. The measurement may not reflect the true fact since Relationship between transfer volumes and their impacts toward poverty and inequality are not linear. For example, in the existing measurement it is possible that if effectiveness and government transfer are doubled, poverty and inequality will decrease

proportionally. In fact, however, poverty and inequality reductions are nonlinear functions toward transfer volumes and thus it is possible that doubling social assistance may be classified as worse options due solely to nonlinearity and not because of their uneffectiveness in reducing inequality.

Secondly, BIA basically is capable of mapping the benefit distribution of social assistance based on the recipient income group. However, the ideal mapping should use market income or household income before paying tax and receiving the transfer from the government. The ideal procedure could not be implemented in this research due to the unavailability of the data in Susenas. For example, to develop market income, it needs supporting information in the form of all taxes namely income tax (*Pajak Penghasilan*, PPh), Value Added Tax (*Pajak Pertambahan Nilai*, PPN), pension contribution, subsidy, social assistance, and pension insurance. However, this information is not available in Susenas. Hence, this research uses Net Market Income as the foundation of distribution mapping of income groups, so that careful interpretation and re-clarification might be needed.

Last, this research uses Susenas which is by definition uses sample data, so there is a possibility of inclusion as well as exclusion errors which may cause data bias. Hence, careful and re-clarification in interpreting data processing results might be needed as well.

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## REFERENCES

- Abed, G. T., and Gupta, S. (2002). *Governance, Corruption, and Economic Performance*. Washington DC: International Monetary Fund.
- Aminuddin, F. (2016). Peningkatan Partisipasi Pendidikan Melalui Program Keluarga Harapan: Studi Kasus Peserta Program Keluarga Harapan di Kecamatan Tayu Kabupaten Pati. *Journal Islamic Review*, V(85), 217-241.
- Angrawati, D., Yamin, M., and Natalis Ransi. (2016). Sistem Pendukung Keputusan Menentukan Jumlah Beras Miskin Menggunakan Metode Simple Additive Weight (SAW). *SemanTIK*, 2(1), 39-45.
- Anneke, R. M., Ngangi, C. R., and Rengkung, L. R. (2017). Efektivitas Ketepatan Sasaran Dalam Penyaluran PKH Keluarga Petani Kelurahan Meras Kecamatan Bunaken Kota Manado. *Agri-SosioEkonomi Unsrat*, V(September), 45-56.
- Astuti, Ri. S. (2017). Implementasi Kebijakan Kartu Indonesia Pintar dalam Upaya Pemerataan Pendidikan tahun Ajaran 2015/2016 di SMP N 1 Semin. *Jurnal Kebijakan Pendidikan*, VI(2), 21-27.



- Atkinson, A. B. (1987). Social Insurance and Income Maintenance. In A. J. Auerbach and M. Feldstein (Eds.), *Handbook of Public Economics, vol II* (pp. 779–908). North-Holland: Elsevier Science Publishers B. V.
- Ayurestianti. (2017). Evaluasi Pelayanan Kesehatan dan Pendidikan Program Keluarga Harapan (PKH). *Ayurestianti*, 1(2), 423–442. <https://doi.org/10.14421/jpm.2017.012-10>
- Azizah, N. L., and Suryawinata, M. (2018). Aplikasi Metode Transportasi Dalam Optimasi Biaya Distribusi Beras Sejahtera Pada Perum BULOG Sub-Divre Sidoarjo. *SOULMATH*, 6(1), 15–24.
- Badan Kebijakan Fiskal. (2016). *Analisis Benefit Incidence di Indonesia*. Jakarta: Badan Kebijakan Fiskal.
- Badan Pusat Statistik. (2006). *Laporan Bulanan Data Sosial Ekonomi* (Vol. 7). Jakarta.
- Barrientos, A. (2010). Social Protection and Poverty. *Círculo de Marketing ICARE*, 42, 1–21.
- Berliana, Prayoga, F. D., and Utomo, F. S. (2018). Implementasi Simple Additive Weighting dan Weighted Product Pada Sistem Pendukung Keputusan Untuk Rekomendasi Penerima, 5(4), 419–426. <https://doi.org/10.25126/jtiik.201854768>
- BPS. (2008). *Analisis dan Penghitungan Tingkat Kemiskinan*. Jakarta: Badan Pusat Statistik.
- BPS. (2019). Kemiskinan dan Ketimpangan. Retrieved January 5, 2019, from <https://www.bps.go.id/subject/23/kemiskinan-dan-ketimpangan.html>
- Bungin, B. (2005). *Metodologi Penelitian Kuantitatif: Komunikasi, Ekonomi, dan Kebijakan Publik serta Ilmu-Ilmu Sosial Lainnya*. (II). Jakarta: Kencana.
- Cook, D. J., Mulrow, C. D., and Haynes, R. B. (1997). Systematic Reviews : Synthesis of Best Evidence for Clinical Decisions. *Annals of Internal Medicine*, 126(5), 376–380.
- Cuenca, J. S. (2008). *Benefit Incidence Analysis of Public Spending on Education in the Philippines: A Methodological Note* (No. 2008-09). Makati City. Retrieved from <http://hdl.handle.net/10419/127971>
- Davoodi, H. R., Tiongson, E., and Asawanuchit, S. S. (2003). How Useful Are Benefit Incidence Analyses of Public Education and Health Spending. *IMF Working Papers*, 03(227), 1. <https://doi.org/10.5089/9781451875430.001>
- Dehani, M., Hernawan, D., and Purnamasari, I. (2018). Evaluasi Program Keluarga Harapan (PKH) di Kecamatan Bogor Selatan Kota Bogor. *Jurnal GOVERNANSI*, 4(April), 45–56.
- Demery, L. (2000). *Benefit Incidence: a Practitioner's Guide* (1 No. 1). *Poverty and Social Development Group Africa Region*. Wahington DC.
- Detik.com. (2018a). 5 Desa di Bojonegoro Kompak Tolak Beras Rastra. Retrieved December 20, 2018, from <https://news.detik.com/berita-jawa-timur/d-3998255/5-desadi-bojonegoro-kompak-tolak-beras-rastra2>.
- Detik.com. (2018b). Hasil Evaluasi: Bulog Temukan Beras “Dipendam” Lebih dari 1,5 Tahun. Retrieved December 15, 2018, from <https://finance.detik.com/berita-ekonomi-bisnis/d-4084475/hasil-evaluasi-bulog-temukan-beras-dipendam-lebih-dari-15-tahun%0D>
- Dewi, A. P., and Ariyanto, R. (2015). Pengembangan Sistem Pendukung Keputusan untuk penentuan Penerima Bantuan Raskin dengan Menggunakan Metode Topsis. *Jurnal Informatika Polinema*, 2(1), 18–23.
- Eardley, T., Bradshaw, J., Ditch, J., Gough, I., and Whiteford, P. (1996). *Social Assistance in OECD countries: Country reports*. London. Retrieved from <http://eprints.whiterose.ac.uk/73427/>
- Foster, J., Greer, J., and Thorbecke, E. (1984). A Class of Decomposable Poverty Measures. *Econometrica: Journal of Econometric Society*, 52(3), 761–766.
- Froyen, R. T. (1996). *Macroeconomics: Theories and Policies* (5th ed.). New Jersey: Prentice Hall.
- Gastwirth, J. L. (1971). A General Definition of the Lorenz Curve. *Econometrica*, 39(6), 1037–1039.
- Gini, C. (1912). Measurement of Inequality of Incomes. *The Economic Journal*, 31(121), 124–126.
- Gough, I., Bradshaw, J., Ditch, J., Eardley, T., and Whiteford, P. (1997). Social Assistance in OECD Countries. *Journal of European Social Policy*, 7(1), 17–43.
- Government of Indonesia. Undang-Undang Dasar Negara Republik Indonesia 1945 (2002). Republic of Indonesia.
- Government of Indonesia. Undang-Undang Nomor 11 tahun 2009 mengenai Kesejahteraan Sosial (2009). Republic of Indonesia.
- Government of Indonesia. (2019). *Nota Keuangan Beserta Rancangan Anggaran Pendapatan dan Belanja Negara 2019*.
- Green, S., Higgin, J. P., Alderson, P., Clarke, M., Mulrow, C. D., and Oxman, A. D. (2011). *Cochrane Handbook for Systematic Reviews of Interventions*. Retrieved December 26, 2018, from <http://handbook-5-1.cochrane.org/>
- Gruat, J., and Bonilla-Garcia, A. (2003). *Social Protection for All: Social Protection: A Life Cycle Continuum Investment for Social Justice, Poverty Reduction and Sustainable Development* (Version 1.0). *Social Protection Sector*. Geneva.
- Gruber, J. (2012). *Public Finance and Public Policy*. New York: Worth Publishers.
- Habibov, N. N., and Fan, L. (2006). Social Assistance and the Challenges of Poverty and Inequality in Azerbaijan, a low-income country in transition. *The Journal of Sociology and Social Welfare*, 33, 203–226. Retrieved from <https://scholarworks.wmich.edu/jssw>

- Handayani, P. W., Hidayanto, A. N., and Budi, I. (2017). User Acceptance Factors of Hospital Information Systems and Related Technologies: Systematic Review. *Informatics for Health and Social Care*, 00(00), 1–26. <https://doi.org/10.1080/17538157.2017.1353999>
- Handayani, T. P. (2017). Analisa Penentuan Perubahan Calon Penerima Rastra (Beras Sejahtera) dengan Metode Simple Additive Method (SAW) di Desa Huidu Kabupaten Gorontalo. *Jurnal Nasional Informatika Dan Teknologi Jaringan*, 2(1), 22–26.
- Hasan, N. F. (2017). Efektivitas Penggunaan Dana bantuan Pendidikan (Studi Kasus pada Siswa Peserta PIP dari Keluarga Peserta PKH di SDN Jogosatru Sidoarjo). *Sekolah Tinggi Ilmu Tarbiyah Nahdlatul Ulama Al Hikmah Mojokerto*, 4, 1–18.
- Haughton, J., and Khandker, S. R. (2009). *Handbook on Poverty and Inequality*. Washington DC: World Bank.
- Inchauste, G., Lustig, N., Maboshe, M., Purfield, C., and Woolard, I. (2015). *The Distributional Impact of Fiscal Policy in South Africa* (Policy Research Working Paper No. 7194). Cape Town.
- Indriani, K. D. (2017). Analisis Pemanfaatan Program Keluarga Harapan (PKH) Terhadap Peningkatan Kesejahteraan Masyarakat Miskin Di Kecamatan Buleleng Tahun 2011-2015. *E-Journal Jurusan Pendidikan Ekonomi*, 10(2).
- International Labour Organization. (2004). *International Experience with Social Assistance Schemes (Five Country Case Studies)*.
- Junaedi, M. S., Setiawan, B. M., and Prastiwi, W. D. (2017). The Satisfaction Comparison of Bantuan Pangan Non Tunai Recipients and Rastra Recipients in Cakung District, East Jakarta, 15(2), 273–288.
- Juwita, Y. (2016). Evaluasi Program Beras Sejahtera (Rastra) Di Kelurahan Sungai Lekop Kecamatan Bintang Timur Kabupaten Bintang. *Skripsi Program Studi Ilmu Administrasi Negara, Fakultas Ilmu Sosial Dan Ilmu Politik Universitas Maritim Raja Ali Haji, Tanjungpinang*.
- Kementerian Keuangan. PMK Nomor 181 tahun 2012 tentang Belanja Bantuan Sosial pada Kementerian Negara/Lembaga (2012). Republic of Indonesia.
- Kementerian Keuangan. (2018). *Kerangka Ekonomi Makro dan Pokok-Pokok Kebijakan Fiskal tahun 2019*. Jakarta.
- Kementerian PPN/Bappenas. (2017). *Mendorong Pertumbuhan Ekonomi Berkelanjutan dengan Mengatasi Ketimpangan dan Kemiskinan*. Pontianak: Kementerian PPN/Bappenas. Retrieved from [https://www.bappenas.go.id/files/1515/0397/8508/Siaran\\_Pers\\_-\\_Mendorong\\_Pertumbuhan\\_Ekonomi\\_Berkelanjutan\\_dengan\\_Mengatasi\\_Ketimpangan\\_dan\\_Kemiskinan.pdf](https://www.bappenas.go.id/files/1515/0397/8508/Siaran_Pers_-_Mendorong_Pertumbuhan_Ekonomi_Berkelanjutan_dengan_Mengatasi_Ketimpangan_dan_Kemiskinan.pdf)
- Kementerian Sosial. (2017). *Pedoman Umum Bantuan Pangan Non Tunai*. Jakarta.
- Laoh, S., Sendow, M. M., and Tarore, M. L. G. (2016). Evaluasi Proses Bantuan Program Keluarga Harapan (PKH) di Kelurahan Malalayang Satu Kecamatan Malalayang Kota Manado. *Agri-SosioEkonomi Unsrat*, 12(2A), 315–330.
- Liberati, A., Altman, D. G., Tetzlaff, J., Mulrow, C., Gøtzsche, P. C., Ioannidis, J. P. A., ... Devereaux, P. J. (2009). The PRISMA statement for reporting systematic reviews and meta-analyses of studies that evaluate health care interventions: explanation and elaboration. *Journal of Clinical Epidemiology*, 62, 1–34. <https://doi.org/10.1016/j.jclinepi.2009.06.006>
- Lidiana. (2017). Efektivitas Bantuan Program Keluarga Harapan (PKH) terhadap Partisipasi Pendidikan di Daerah Pesisir Kecamatan Muara Tiga Kabupaten Pidie. *Seminar Nasional II USM 2017 Eksplorasi Kekayaan Maritim Aceh Di Era Globalisasi Dalam Mewujudkan Indonesia Sebagai Poros Maritim Dunia*, 1, 327–332.
- Lisna, V., Sinaga, B. M., Firdaus, M., and Sutomo, S. (2013). Dampak Kapasitas Fiskal terhadap Penurunan Kemiskinan : Suatu Analisis Simulasi Kebijakan. *Jurnal Ekonomi Dan Pembangunan Indonesia*, 14(1), 1–26.
- Londah, A. A., Tampi, G. B., and Londa, V. Y. (2018). Implementasi Program Keluarga Harapan di Kecamatan Pasan Kabupaten Minahasa Tenggara. *Jurnal Administrasi Publik*, 4(53), 1–10.
- Lusiana, L. (2018). Implementasi Program Indonesia Pintar (PIP) di Desa Sukomulyo Kecamatan Sepaku, Kabupaten Penajam Pasir Utara: Studi Kasus di SDN 011 dan SDN 013. *EJournal Administrasi Negara*, 6, 6991–7005.
- Lutviasari, D., and Setyowani, N. (2016). Perbedaan Motivasi Berprestasi Antara Siswa Reguler dengan Siswa Program Keluarga Harapan (PKH). *Indonesian Journal of Guidance and Counseling: Theory and Application*, 5(2), 42–46.
- Maipita, I., Jantan, M. D., and Razak, N. A. A. (2001). Dampak Kebijakan Fiskal terhadap Kinerja Ekonomi dan Kemiskinan di Indonesia. *Buletin Ekonomi Moneter Dan Perbankan*, 12(4), 421–456.
- McIntyre, D., and Ataguba, J. E. (2010). How to do (or not to do)...a benefit incidence analysis. *Health Policy and Planning*, 26(2), 174–182. <https://doi.org/10.1093/heapol/czq031>
- Moher, D., Shamseer, L., Clarke, M., Ghersi, D., Liberati, A., Petticrew, M., ... Group, P. (2015). Preferred Reporting Items for Systematic Review and Meta-analysis Protocols (PRISMA-P) 2015 Statement. *Systematic Reviews*, 4(1), 1–9.
- Mudawamah, U. (2016). Pengaruh Program Keluarga Harapan (PKH) terhadap Prestasi Belajar Siswa di Madrasah Ibtidaiyah (MI) 'Ulumiyah Semanding Tertekek Pare Kediri. *Inovatif*, 2(1), 54–79.

- Murib, J., Porajow, O., and Sondak, L. W. T. (2018). Pemberdayaan Masyarakat Melalui Program Keluarga Harapan (PKH) di Kelurahan Ranotana Weru. *Agri-SocioEkonomi Unsrat*, 14(1), 441–446.
- Ottawa Hosiptal Research Institute, and University of Oxford. (2015). PRISMA: Transparent Reporting Systematic Reviews and Meta-Analyses. Retrieved December 27, 2018, from <http://www.prisma-statement.org/>
- Oxfam. (2018). *Development Finance International and OXFAM Report the Commitment to Reducing Inequality Index 2018*. Retrieved from [www.oxfam.org](http://www.oxfam.org)
- Permana, A. C., Sasmito, C., and Gunawan, C. I. (2018). Program Keluarga Harapan untuk Memutus Rantai Kemiskinan di Kota Malang (Studi di Kecamatan Lowokwaru Kota Malang). *MADANI Jurnal Politik Dan Sosial Kemasyarakatan*, 10(2), 64–74.
- Prakoso, A. B., and Handoyo, P. (2016). Pola Konsumsi Penerima Program Keluarga Harapan ( PKH ) di Desa Gebangmalang Kecamatan Mojoanyar Kabupaten Mojokerto. *Paradigma*, 04(01), 1–9.
- Rachman, B., Agustian, A., and Wahyudi. (2018). Efektivitas dan Perspektif Pelaksanaan Program Beras Sejahtera (Rastra) dan Bantuan Pangan Non-Tunai (BPNT). *Analisis Kebijakan Pertanian*, 16(1), 1–18.
- Rajkumar, A. S., and Swaroop, V. (2008). Public spending and outcomes: Does governance matter? *Journal of Development Economics*, 86(1), 96–111.  
<https://doi.org/10.1016/j.jdeveco.2007.08.003>
- Ratnawati, Djaeni, M., and Hartono, D. (2013). Perubahan Kualitas Beras Selama Penyimpanan. *Jurnal Pangan*, 22(3), 199–207.
- Reksoprayitno, S. (1992). *Ekonomi Makro: Analisis IS-LM dan Permintaan Agregatif* (2th ed.). Yogyakarta: Liberty.
- Roidah, I. S. (2016). Evaluasi, Kebijakan, Kemiskinan, Program Keluarga Harapan. *Jurnal Agribisnis Fakultas Pertanian Unita*, 39–55.
- Saputra, A. E., Burhanudin, and Kalalinggi, R. (2018). Implementasi Distribusi Program Beras Sejahtera (Rastra) di Kelurahan Melak Ulu Kecamatan Melak Kabupaten Kutai Barat. *EJournal Ilmu Pemerintahan*, 6(3), 1099–1110.
- Saputra, Y. (2017). Pengelolaan Program Keluarga Harapan (PKH) di Kecamatan Tembilahan Kabupaten Indragiri Hilir. *JOM Fisip*, 4(2), 1–15.
- Saraswati, L. N. (2017). Implementasi Kebijakan Program Indonesia Pintar (PIP) pada Jenjang Sekolah Dasar di Kecamatan Sungai Pinang Kota Samarinda. *EJournal Administrasi Negara*, 5(Nomor 4), 6737–6749.
- Sari, D. P., Kustiawan, and Riyadi, S. F. (2016). Implementasi Program Indonesia Pintar Di Kota Tanjungpinang Tahun 2016. *Program Studi Ilmu Pemerintahan Fakultas Ilmu Sosial Dan Ilmu Politik Universitas Maritim Raja Ali Haji*, 1–21.
- Sekaran, U., and Bougie, R. (2016). *Research Method for Business: A Skill-Building Approach* (7th ed.). West Sussex: John Wiley and Sons Ltd.
- Septiandika, V. (2017). Evaluasi Implementasi Penyaluran Program Indonesia Pintar (PIP) Bagi Siswa Kurang Mampu: Studi pada SDN Jrebeng Wetan Tahun 2016. *Pedagogy*, 4(1), 52–56.
- Sjahir, B. S., Kis-Katos, K., and Schulze, G. G. (2013). Political budget cycles in Indonesia at the district level. *Economics Letters*, 120(2), 342–345.  
<https://doi.org/10.1016/j.econlet.2013.05.007>
- Sofyan, F., Nurfarida, E., Febry, E., and Yustika, W. (2016). Sistem Pendukung Keputusan Penerimaan Raskin Desa Mabung Kabupaten Nganjuk Menerapkan Metode Simple Additive Weighting. *Jurnal Informatika and Multimedia*, 08(02), 17–23.
- Solikin, A. (2018). Pengeluaran Pemerintah dan Perkembangan Perekonomian (Hukum Wagner) di Negara sedang Berkembang: Tinjauan Sistematis. *Info Artha*, 2(1), 65–89.
- Spencer, M. H., and Armos, O. M. (1993). *Contemporary Economics* (8th ed.). New York: Worth Publishers.
- Subagio, R. T., Abdullah, M. T., and Jaenudin. (2017). Penerapan Metode SAW (Simple Additive Weighting) dalam Sistem Pendukung Keputusan untuk Menentukan Penerima Beasiswa. *Prosiding Saintiks FTIK Unikom*, 2, 61–68.
- Suliantoro, H., Susanty, A., and Silaban, F. B. (2016). Perancangan Rute Distribusi Beras Sejahtera Menggunakan Algoritma Ant Colony Optimization (Studi Kasus di Bulog Kabupaten Semarang). *Industrial Engineering Online Journal*, 5(1), 1–7.
- Suparno, Juri, and Relita, D. T. (2018). Motivasi Belajar Anak Keluarga Penerima Manfaat Program Keluarga Harapan di Kabupaten Sintang. *Voxedukasi*, 9(2), 121–129.
- Surjaningsih, N., Utari, G. A. D., and Trisnanto, B. (2012). Dampak Kebijakan Fiskal terhadap Output dan Inflasi. *Bulletin of Monetary Economics and Banking*, 14(4), 389–420.
- Susanti, Y., R, Y. D., and Hanum, D. (2018). Penerapan Metode Naive Bayes Dan Simple Additive Weighting Dalam Penentuan Penerima Program Keluarga Harapan. *Prodsiding Seminar Nasional Sains dan Teknologi Terapan VI (SNTEKPAN VI) Tahun 2018*, 205–210.
- Tim Nasional Percepatan Penanggulangan Kemiskinan (TNP2K). (2017). *Basis Data Terpadu 2015: Untuk Memilah Penerima Manfaat Program Penanganan Fakir Miskin Berdasarkan Kriteria Program*. Jakarta.
- World Bank. (2004). *Making Services Work for Poor People*. Washington DC.
- World Bank, A. G. (2017). *Menuju Sistem Bantuan Terintegrasi, dan Efektif di Indonesia*. Jakarta.
- Wulansari, M. S., Timan, A., and Nurabadi, A. (2017). Evaluasi Program Indonesia Pintar Tingkat Sekolah Menengah Pertama Negeri Se-Kabupaten Mojokerto. *Skripsi Jurusan Administrasi Pendidikan - Fakultas Ilmu Pendidikan Universitas*

*Negeri Malang.*

Zulvia, A. S., and Suyanto, T. (2017). Efektivitas Pemanfaatan Dana Program Indonesia Pintar Siswa di Desa Ngrayun untuk Pemenuhan Wajib belajar 9 Tahun. *Kajian Moral Dan*

*Kewarganegaraan*, 05(Nomor 03 Jilid 1), 716–734.



## APPENDIX

### Appendix 1

The Difference between Systematical Review and Narrative/Tradition Review

No	Statement	Systematical Review	Narrative/ Traditional review
1.	Goal	Observing a problem (generally or specifically) comprehensively	Sorting a problem generally
2.	Arrangement Process	The availability of standard, process, or protocol described in the report, and potential refraction will be reduced.	Not use standard, the process is not described, and the availability of potential refraction
3.	Literature searching	As complete as possible	Sometimes limited
4.	Inclusion/Literature resource	Research report, the previous systematical review, and information of big database	Research report, theoretical literature, essay, opinion article
5.	Literature Selection	Using literature quality filter (certain quality criteria)	There is no literature quality filter
6.	Statistical Analysis	Be able to use the result of homogeny quantitative study (meta-analysis)	Not carried out
7.	Report	Comprehensively from various related studies	Selective based on the goal sometimes
8.	Ranking evidence	Evidence level decided from each study	The evidence is not ranked

Source: Houser and Oman (2011).

## Appendix 2

The Impact and Effectiveness of Social Assistances towards Poverty alleviation and Inequality reduction in Indonesia in 2017

Statement	Rastra, PIP, PKH	Rastra and PKH	Rastra and PIP	PKH and PIP	PIP only	PKH only	Rastra only	Without any policy
Number received by Household/month	2.170 M	1.738 M	1.614 M	988 M	432 M	556 M	1.182 M	-
Poverty percentage (%)	12,20	12,48	12,67	12,82	13,31	13,10	12,96	13,59
Poverty changes (%)	<b>1,39</b>	1,11	0,91	0,77	0,28	0,49	<b>0,63</b>	-
Gini Ratio	0,3991	0,4002	0,4009	0,4019	0,4036	0,4030	0,4020	0,4048
Gini Ratio changes (point)	<b>0,0057</b>	0,0046	0,0039	0,0029	0,0011	0,0018	<b>0,0028</b>	-
Poverty alleviation effectiveness	0,639 x 10 <sup>-5</sup>	0,637 x 10 <sup>-5</sup>	0,566 x 10 <sup>-5</sup>	0,780 x 10 <sup>-5</sup>	0,648 x 10 <sup>-5</sup>	<b>0,879 x 10<sup>-5</sup></b>	0,530 x 10 <sup>-5</sup>	-
Inequality reduction Effectiveness	0,262 x 10 <sup>-5</sup>	0,263 x 10 <sup>-5</sup>	0,244 x 10 <sup>-5</sup>	0,295 x 10 <sup>-5</sup>	0,266 x 10 <sup>-5</sup>	<b>0,320 x 10<sup>-5</sup></b>	0,238 x 10 <sup>-5</sup>	-

Source: Processed from Susenas 2017