Analysis of the Inequality on Inter-regional and Inter-time Income Distribution in Indonesia

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Abstract

This study aimed at measuring the level of inequality income distribution and its development in Indonesia. It employed the quantitative method by selecting data from the statistic center of Indonesia purposively. The data have been analyzed using path analysis. The results yield the following conclusions: First, the inequality of income distribution between islands in Indonesia is classified as medium and high inequality. The highest inequality in income distribution is in Java, while the lowest income distribution inequality is in Kalimantan; Second, provinces with lower levels of inequality in income distribution in Indonesia are the provinces of Riau, Jambi, Bengkulu, Lampung, West Java, Banten, Central Sulawesi, Gorontalo, and West Papua. Provinces with increasing inequality in income distribution are South Sumatra Province, DKI Jakarta, East Kalimantan, North Kalimantan, North Sulawesi, and North Maluku; Third, Sulawesi is the island with the highest level of income distribution inequality in rural and urban areas, while in Java, it has the highest level of distribution inequality in urban areas. Maluku and Papua are the islands with the highest level of distribution inequality in rural areas but they have a low level of inequality in urban areas. Besides, the island of Kalimantan also has a level of inequality of low-income distribution in rural areas. There is a significant difference in the Gini index between urban and rural areas in Indonesia, where urban areas have a high level of distribution inequality compared to rural areas; Fourth, there are significant Gini index differences before regional autonomy and after regional autonomy in Indonesia, where high-income disparities occurred after regional autonomy compared to the era before regional autonomy.

Keywords: Inequality; Income distribution; Inter-regional; Inter-time; Indonesia.

1. Introduction

As a country consisting of thousands of islands, differences in regional characteristics are consequences that cannot be avoided by Indonesia. It is due to the characteristics of each region that has a strong influence on the creation of economic development patterns, so it is reasonable if the pattern of economic development in Indonesia is not evenly distributed. This inequality affects the ability to grow which in turn results in several regions being able to overgrow while other regions grow slowly. This growing ability then causes inequality, both development, and inter-regional income.

This condition is a development challenge that must be faced because the problem of inequality can threaten the unity and integrity of the nation and can make it difficult for the government to carry out national economic development based on equity. Inequality is a problem that can be found elsewhere. Therefore, inequality cannot be eliminated, but it can only be reduced to a level that can be accepted by a particular social system so that the harmony in the system is maintained in its growth process.

Dissatisfaction and criticism that arise in the development process are basically not correlated with the growth that has been achieved, but due to development with economic growth is less able to create equitable development and its results, even income inequality is increasingly large and has caused various development problems, such as unemployment, lack of health and education facilities, and so on.

Income distribution is one aspect of poverty that needs to be considered because income distribution is a measure of relative poverty that is generally faced by developing countries such as Indonesia. Eradication of poverty/income inequality is now a significant problem in development and the primary target of development policy in many countries (Todaro, 2000). It happens because spatial development within the country does not always take place systemically. Some regions achieved rapid growth, while some other regions experienced slow growth. Taking into account the adverse impact on the inequality of inter-regional income distribution which is increasingly high and needs to be given priority from the government in developing strategies and policies in Indonesia, the study "Analysis of Inequality in inter-Regional Income Distribution in Indonesia" is critical to study.

This research was conducted with the aim of: First, to analyze the level of inequality of inter-island income distribution in Indonesia; Second, to examine the development of the level of inequality of income distribution

between provinces in Indonesia; Third, to analyze the level of inequality of income distribution between urban and rural areas and whether or not there is a significant difference in the Gini index between urban and rural areas in Indonesia; Fourth, to analyze whether there is a substantial difference in the Gini index between regions before regional autonomy and after regional autonomy in Indonesia.

Income distribution can generally be divided into two, namely functional distribution and size distribution, but Adelman and Robinson (1989) divides it into three, namely: functional distribution, wider functional distribution, and size distribution. Functional distribution describes the share of national income towards primary production factors (land, labor, and capital). This distribution focuses on the share of national income received by each element of production. This functional distribution theory fundamentally questions the percentage of labor income as a whole, not as individual business units or production factors separately, and compares them with the percentage of total income distributed in the form of rent, interest, and profit (Todaro, 2000).

A wider functional distribution reflects the separation of production methods. The separation made depends on the country and its problems. The size distribution sees the community divided by the level of income. Size distribution describes the share of income received by each recipient of income. Recipients of income can be classified as households, total population, working population, or per capita households. What is considered in the size distribution is how much profit is received, no matter where the source, whether from interest on savings, operating income, gifts or inheritance.

Inequality of income distribution is often associated with poverty because poverty is one of the contributing factors is the inequality of income distribution. Poverty is closely related to absolute living standards of certain parts of society, while inequality refers to the relative standard of living of the whole community (Kuncoro, 2002). In other words, poverty can be viewed from two sides, namely, first, absolute poverty, with this approach identified the number of people living under a particular poverty line. Second, relative poverty, namely the share of national income received by each income class. That is, poverty is relatively closely related to the problem of inequality in income distribution.

The measure of inequality in income distribution is a quantitative way to describe the imbalance of the distribution of income generated by various economic activities. Macroeconomic indicators to assess or describe the level of inequality in the distribution of income of a country or region are the Gini Index and World Bank criteria. The method moves from the same starting point which is the comparison between the lowest population groups with higher groups. On the basis of comparison, measures of equity/income inequality were made. In general, the Gini Index is more often used because this formula can be translated into the Lorenz Curve which provides a visual picture of the inequality of income sharing in society.

In the Lorenz curve, three states are described at once, namely (Rosyidi, 1991). The state of income distribution is very evenly distributed, namely the situation in which each population group receives the same share so that the entire population gets all national income. This situation makes the community rich or all poor (not lame), 2) The state of income distribution is very uneven, namely an absolute imbalance in which a small group of residents receives all national income while the majority of the population does not receive it at all, 3)The actual state of revenue sharing, which is under reality is not (ever) evenly distributed, that is, a situation that is following fact is uneven, not even or the income received by the population is uneven.

Three graphs represent these three conditions in Figure 1. The first state is described as an OA line which is a diagonal square OBAD. The second state, defined as an OBA line, an elbow curve and a third state is described as curved lines of the OCA.

Figure-1. Lorenz Curve

Source: https://www.intelligenteconomist.com/lorenz-curve-gini-coefficient/
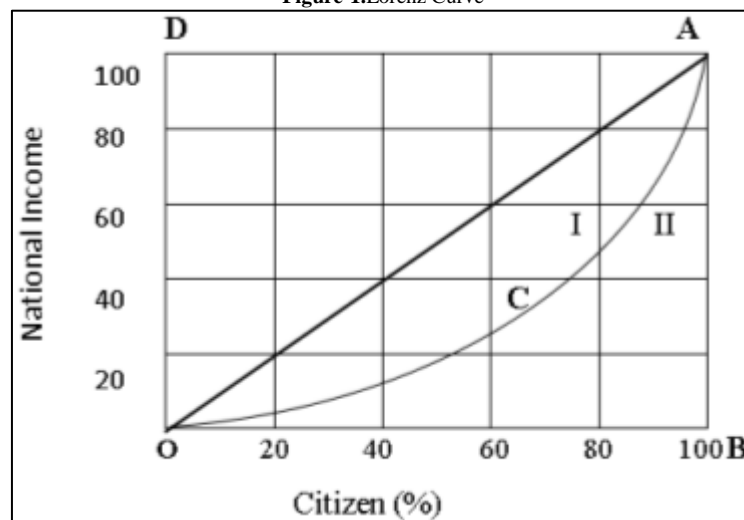
In Lorenz curve, the Gini coefficient is obtained by the formula:

$$\text{Gini index} = \frac{\text{Size of area I (tembereng OCA)}}{\text{Size of area I + II (area OBA)}}$$

Furthermore, because the Gini coefficient shows the degree of equity, the smaller the Gini coefficient, the more income distribution will be which can be briefly written:

$$0 < G < 1$$

H. Tatsumi Oshima detects income distribution patterns or sees the degree of inequality of income distribution using the Gini coefficient with the following criteria (Wiratmo, 1992):

a. Gini index $0.20 < 0.35 =$ Mid/low inequality
b. Gini index $0.35 – 0.5 =$ Moderate inequality
c. Gini index $> 0.50 =$ High inequality

2. Material and Method

The scope of this research is all provinces in Indonesia from 2015 to 2017. The indicator used to provide an overview of the level of inequality in income sharing is the Gini Index. Gini Index or Gini Coefficient can be calculated mathematically by formula Dumairi (1999):

$$G = 1 - \sum_{1}^{n} (xi+1 - xi) (yi + yi+1)$$

$$G = 1 - \sum_{1}^{n} fi (yi + yi+1)$$

G = Gini index
f_i = Percentage of total family in class i
x_i = Percentage of the comulative family in class i
y_i = Percentage of comulative income of family in class i

After this index number is obtained, then the benchmarking technique is done by using the hypothesis test approach of two independent samples with a statistical tool in the form of Mann-Whitney U test and testing the hypothesis of two samples correlated with statistical tools in the type of Wilcoxon test with the following procedure:

a. Hypotheses test using *Mann-Whitney U*
Ho: There is no significant difference in the Gini index between urban and rural areas in Indonesia
Ha: There is a significant difference in this index between urban and rural areas in Indonesia
b. Hypotheses test using *Wilcoxon*
Ho: There are no significant differences in this index between regions before regional autonomy and after regional autonomy in Indonesia
Ha: There are significant differences in this index between regions before regional autonomy and after regional autonomy in Indonesia
c. Determining the signivicance value as much as 95 % ($\alpha = 0.05$)
d. Conclusion: Ha is accepted if the significant value < 0.05

3. Results and Discussion

3.1. The Level of Inequality Income Distribution Inter-Regional in Indonesia

During 2015 to 2017, inequality of income distribution between islands in Indonesia was categorized as moderate inequality and high inequality, because this index is above the number 3 (three) and the number 4 (four). The highest inequality in income distribution in Indonesia is on the island of Java. This inequality fluctuated, wherein 2015 the index value was 0.412, and then decreased to 0.396 in 2016 and the Gini index rose again in 2017 to 0.400. Whereas the lowest inequality of income distribution between islands in Indonesia is the island of Borneo, although this imbalance is still classified as moderate inequality. The level of inequality in income distribution on the island of Kalimantan has fluctuated from 2015 to 2017 with this index being 0.324, 0.332, and 0.330 respectively. Sumatra Island is an island that has experienced a decrease in inequality of income distribution or even distribution level that has improved from 2015 to 2017, while other islands experience fluctuations in income distribution inequality.

Table-1. The Mean Score of Gini Index Inter-regional in Indonesia

Tahun	P. Sumatera	P. Jawa	P. Bali & NusaTenggara	P. Kalimantan	P. Sulawesi	P. Maluku & Papua
Urban						
2015	0,371	0,428	0,370	0,342	0,410	**0,318**
2016	0,364	0,408	0,377	0,362	0,401	**0,324**
2017	0,350	0,410	0,388	0,339	0,400	**0,347**
Rural						
2015	0,312	0,318	0,317	0,290	0,353	0,360
2016	0,285	0,305	0,319	0,298	0,348	0,340
2017	0,291	0,311	0,311	0,290	0,340	0,335
Total						
2015	0,349	0,412	0,363	**0,324**	0,390	0,370
2016	0,337	0,396	0,367	**0,332**	0,383	0,359
2017	0,332	0,400	0,372	**0,330**	0,386	0,362

Source: BPS (Results of Data Analysis)

Table 1 shows that during 2015 to 2017, urban areas had the highest inequality in income distribution, namely in Java and Sulawesi. The two islands have a GINI index value of 0.400 to 0.428 from 2015 to 2017. The lowest level of inequality in income distribution in urban areas is the islands of Maluku and Papua, although the index of the income increases every year. In addition to the islands of Maluku and Papua, other islands that experienced an increase in the Gini index were the islands of Bali and Nusa Tenggara. Whereby the island where the level of inequality in income distribution has improved every year is the island of Sumatra and the island of Sulawesi.

Rural areas are regions with a low level of inequality in income distribution compared to urban areas, except Maluku and Papua islands in 2015 and 2016. The level of inequality of low-income distribution in rural areas from 2015 to 2017 is the island of Kalimantan with a Gini index was 0.290 and 0.298 and is classified as low levels of inequality. The level of inequality in the distribution of rural areas classified as small in addition to the island of Borneo is the island of Sumatra in 2016 and 2017. The inequality of income distribution on other islands in Indonesia is classified as moderate inequality. Sulawesi Island, Maluku Islands, and Papua are islands with evenly increasing levels of income distribution in rural areas, although they have high levels of inequality in income distribution. Other islands experience fluctuations in income distribution inequality between 2015 and 2017.

The level of inequality in income distribution between islands is classified as the level of low, medium and high inequality that occurs because these regions have not experienced the same progress caused by lack of resources owned. The existence of a capital role tendency (investors) chooses urban areas or from local governments that already have facilities such as transportation facilities, electricity networks, telecommunications networks, banking, insurance, as well as skilled labor besides the inequality of redistribution of revenue sharing from the central government to the regions (Arifin, 2009).

Adelman and Moris in Arsyad (2010) said the causes of inequality in income distribution in developing countries were high population growth, inflation, regional development inequality, capital intensive, low social mobility, industrial policy, worsening exchange rates (term of trade) for developing countries with developed countries and the destruction of folk handicraft industries such as carpentry and home industries.

3.2. Development of Inter-Provincial Income Distribution Inequality Levels in Indonesia

The Gini index of each province in Indonesia from 2015 to 2017 can be seen in Table 2 below. The development of inequality of income distribution between regions varies considerably; there is a level of inequality of income distribution that is getting lower, the level of inequality is getting higher, the level of inequality that has fluctuated but increasingly weak, and the level of inequality that has shifted and is getting higher.

Table-2. Development of Gini Index InteRegions in Indonesia 2015 to 2017

Province	2015	2016	2017	2015 to 2016	2016 to 2017
Aceh	0.330	0.341	0.329	Getting lame	More even
Sumatera Utara	0.340	0.312	0.335	More even	Getting lame
Sumatera Barat	0.340	0.312	0.312	More even	Getting lame
Riau	0.360	0.347	0.325	More even	More even
Jambi	0.360	0.346	0.334	More even	More even
Sumatera Selatan	0.360	0.362	0.365	Getting lame	Getting lame
Bengkulu	0.380	0.354	0.349	More even	More even
Lampung	0.380	0.358	0.333	More even	More even
Bangka Belitung	0.280	0.288	0.276	Getting lame	More even
Kepulauan Riau	0.360	0.352	0.359	More even	Getting lame
DKI Jakarta	0.430	0.397	0.409	Getting lame	Getting lame
Jawa Barat	0.410	0.402	0.393	More even	More even
Jawa Tengah	0.380	0.357	0.365	More even	Getting lame
DI Yogyakarta	0.430	0.425	0.440	More even	Getting lame
Jawa Timur	0.420	0.402	0.415	More even	Getting lame
Banten	0.400	0.392	0.379	More even	More even
Bali	0.380	0.374	0.379	More even	Getting lame
Nusa Tenggara Barat	0.370	0.365	0.378	More even	Getting lame
Nusa Tenggara Timur	0.340	0.362	0.359	Getting lame	More even
Kalimantan Barat	0.330	0.331	0.329	Getting lame	More even
Kalimantan Tengah	0.330	0.347	0.327	Getting lame	More even
Kalimantan Selatan	0.350	0.351	0.347	Getting lame	More even
Kalimantan Timur	0.320	0.328	0.333	Getting lame	Getting lame
Kalimantan Utara	0.290	0.305	0.313	Getting lame	Getting lame
Sulawesi Utara	0.370	0.379	0.394	Getting lame	Getting lame
Sulawesi Tengah	0.370	0.347	0.345	More even	More even
Sulawesi Selatan	0.420	0.400	0.429	More even	Getting lame
Sulawesi Tenggara	0.400	0.388	0.404	More even	Getting lame
Gorontalo	0.420	0.410	0.405	More even	More even
Sulawesi Barat	0.360	0.371	0.339	Getting lame	More even
Maluku	0.340	0.344	0.321	Getting lame	More even
Maluku Utara	0.280	0.309	0.330	Getting lame	Getting lame
Papua Barat	0.440	0.401	0.387	More even	More even
Papua	0.420	0.394	0.398	More even	Getting lame

Source: BPS (Results of Data Analysis)

The data in Table 2 above are then grouped into 4 (four) groups namely the lower income distribution, the higher, the fluctuations and the smaller, and the fluctuations and the higher. Based on the table, many provinces in Indonesia experienced an unequal income distribution that fluctuated but lowered from 2016 to 2017, namely as many as ten regions. Then there are nine provinces in Indonesia that experience a fluctuating inequality of income distribution in 2017. The imbalance in income distribution continues to be lower or the level of even distribution of income increases from 2015 to 2017 consists of the provinces; Riau, Jambi, Bengkulu, Lampung, West Java, Banten, Central Sulawesi, Gorontalo, and West Papua. Whereas areas with higher inequality in income distribution are six provinces, namely; South Sumatra, DKI Jakarta, East Kalimantan, North Kalimantan, North Sulawesi, and North Maluku.

Table-3. Grouping the Development of the Inter-island Gini Index in Indonesia 2015 to 2017

Lower Inequality	Higher Inequality	Fluctuations and Lower Inequality	Inequality that fluctuates and gets higher
Riau	Sumatera Selatan	Aceh	Sumatera Utara
Jambi	DKI Jakarta	Bangka Belitung	Sumatera Barat
Bengkulu	Kalimantan Timur	Nusa Tenggara Timur	Kepulauan Riau
Lampung	Kalimantan Utara	Kalimantan Barat	Jawa Tengah
Jawa Barat	Sulawesi Utara	Kalimantan Tengah	DI Yogyakarta
Banten	Maluku Utara	Kalimantan Selatan	Jawa Timur
Sulawesi Tengah		Sulawesi Selatan	Bali
Gorontalo		Sulawesi Tenggara	Nusa Tenggara Barat
Papua Barat		Sulawesi Barat	Papua
		Maluku	

Source: BPS (Results of Data Analysis)

The cause of the variation in the level of inequality in income distribution between regions in Indonesia from 2015 to 2017 can be caused by (the collaboration between UNPAD and BAPPEDA Bandung, 2015): first, the gap in infrastructure availability. Infrastructure is input in the production process that can provide an increase in marginal productivity in output. Proper and appropriate support can help drive various economic activities through its functions that can expedite the production process and human mobility, goods, and services; second, regional financial capability gap. The gap regarding financial capability between regions can be seen from the aspect of the amount of local income, and the quality of provincial spending. Both of these aspects have a real influence on regional economic performance.

Inequality of income distribution between regions in Indonesia is also inseparable from the diversity of potential natural resources, geographical location, quality of human resources, ethnic or political ties. Inequality of income distribution in an area will cause various problems, such as increased migration from poor regions to most developed cities, crime, and conflict between communities. Although it cannot be eliminated, the areas that experience an increasingly higher income distribution gap must still be strived to be able to reduce the level of regional income distribution inequality.

The occurrence of inequality of income distribution which is getting higher or lower is a reflection of inequality in development between regions which will be able to affect both rich and poor areas adversely. The consequences caused in deprived areas are: First, difficulties in building industrial sectors and increasing employment opportunities. It is due to the population of the region grows faster than the affluent areas, it will cause a decrease in per capita income and an increase in unemployment; Second, the situation will cause changes in the economic structure from traditional to industry to be slow, due to lack of industrial infrastructure, entrepreneurial skills and so on so that the economic structure remains in the agricultural sector and home industry. Third, there is a shortage of high productivity labor because it is sucked into affluent areas where jobs are readily available, and what is left behind is low-productivity labor so that this situation impedes further development.

3.3. Differences in the Gini Index of Urban and Rural Areas

Table 4, 5, and 6 show that the average index for urban areas and rural areas in Indonesia in 2015, 2016 and 2017 has a significance value of 0,000, which means that Ha is accepted (significance value below 0.05). Thus the conclusion is that there is a significant difference in the Gini index between urban and rural areas in Indonesia.

The results of this study are by Lewis's growth theory which states that the inequality of income distribution in the modern (urban) sector experiences far more significant growth than that contained in the traditional industry which is relatively stagnant and constant in rural areas. This can be caused by first, the lack of access to land and capital will cause people who want to produce to be hampered by many rules such as tight credit with high interest; Second, in Indonesia non-formal workers are far more than formal workers and there are state and private investments, and infrastructure facilities that are highly concentrated in urban areas. Economic opportunities and infrastructure facilities in a city have attracted more people from rural areas and added to the problem of urbanization.

Table-4. The Results of Hypotheses Test in Gini Index 2015

Test Statistics[a]	
	Urban and Rural
Mann-Whitney U	200.000
Z	-4.536
Asymp. Sig. (2-tailed)	.000
a. Grouping Variable: Areas	

Source: Results of *Mann-Whitney U* (Data Analysis)

Table-5. Results of Hypotheses Test in Gini Index 2016

Test Statistics[a]	
	Urban and Rural
Mann-Whitney U	122.000
Z	-5.506
Asymp. Sig. (2-tailed)	.000
a. Grouping Variable: Areas	

Source: Results of *Mann-Whitney U* (Data Analysis)

Tabel-6. Results of Hypotheses Test of Gini Index in 2017

Test Statistics[a]	
	Urban and Rural
Mann-Whitney U	166.500
Z	-4.948
Asymp. Sig. (2-tailed)	.000
a. Grouping Variable: Areas	

Source: Results of *Mann-Whitney U* (Data Analysis)

High urbanization from village to city will cause the supply of labor in the town will increase sharply even though the formal sector in the city is not necessarily able to absorb all the labor supply so that unemployment in the city will improve and they will increase poverty and income inequality. In contrast, cities that can manage urbanization problems can play a more significant role as centers of growth for the surrounding regions (buffer zones) and reduce problems due to high inequality between urban and rural areas (Noegroho, 2007).

3.4. Differences in the Gini Index before Regional and Regional Autonomy

The index of the provinces in Indonesia before regional autonomy (Table 7) is lower than this index after regional autonomy (Table 2). All regions in Indonesia experience an increase in inequality in income distribution after regional independence in 2015, 2016 and 2017 compared to before regional autonomy in 1998.

Table-7. Gini Index Inter-Provinces in Indonesia before the Regional Autonomy (Year 1998)

Province	Gini Index
Aceh	0.254
Sumatera Utara	0.277
Sumatera Barat	0.265
Jambi	0.265
Sumatera Selatan	0.274
Aceh	0.254
Bengkulu	0.263
Lampung	0.264
DKI Jakarta	0.249
Jawa Tengah	0.259
DI Yogyakarta	0.315
Jawa Timur	0.298
Jawa Barat	0.292
Bali	0.296
Nusa Tenggara Barat	0.259
Nusa Tenggara Timur	0.283
Kalimantan Barat	0.279
Kalimantan Tengah	0.262
Kalimantan Selatan	0.259
Kalimantan Timur	0.291
Sulawesi Tengah	0.300
Sulawesi Selatan	0.274
Sulawesi Tenggara	0.268
Sulawesi Utara	0.298
Maluku	0.268
Papua	0.384

Source: BPS. 1998. *Statistik Kesejahteraan Rakyat* (Data Analysis)

Table 8 shows that the average of these indices before regional autonomy (in 1998) and after regional autonomy (in 2017) in Indonesia has a significance value of 0,000, which means that Ha is accepted (significance value below 0.05). Thus the conclusion is that there is a significant/significant difference in the Gini index at the time before the implementation of regional autonomy and after the application of local self-government in Indonesia, where a high level of inequality occurred after regional autonomy.

Table-8. Results of Hypotheses Test of Gini Index before and after the regional autonomy

Test Statistics[a]	
	After_Autonomy - Before_Autonomy
Z	-4.903
Asymp. Sig. (2-tailed)	.000
a. Sign Test	

Source: Results of *Wilcoxon test* (data analysis)

The increasing inequality of income distribution across regions in Indonesia at the time of regional autonomy shows that the policy of granting regional autonomy in Indonesia has not been entirely successful. It is because one of the most effective strategic steps by giving regional autonomy and decentralization to the regions broadly and is in the form of protection and empowerment of local economies and equal distribution of income (Mardiasmo, 2004).

The perspective of changes in regional financial management and regional budgets after regional autonomy, one of which is regional financial management must rely on the public interest. The experience that has occurred so far shows that regional financial management is still a concern. Regional budgets, especially provincial expenditures have not been able to act as incentives in pushing the pace of development in the regions. Also, there were many complaints from the public relating to budget allocations that were not following the needs and priorities and did not reflect economic aspects, efficiency, and effectiveness.

In the context of regional autonomy, the provincial government is expected to provide a conducive climate for investing. Therefore, the investment of local governments that are service-oriented can be enjoyed and felt by the community must receive a more substantial budget allocation. Regional investment carried out by the government, society and private components are one aspect that needs to be empowered in the region. The government has a role in supporting the provision of infrastructure so that the large or small infrastructure investment budget of the local government can directly indicate how much progress can be made. Weaknesses in government performance in carrying out this role can provide considerable additional costs for the company, and many potential opportunities become unprofitable. Infrastructure limitations will directly cause the regional economic potential to be utilized optimally. Therefore, it is necessary to implement sustainable economic development and be carried out well by the local government, to encourage economic growth and increase income distribution for the community.

4. Conclusion

Overall, inequality of income distribution between islands in Indonesia is categorized as moderate inequality and high inequality. The highest inequality in income distribution is Java, while the lowest variation in income distribution is Kalimantan.Provinces whose level of inequality in income distribution is lower in Indonesia is the Province; Riau, Jambi, Bengkulu, Lampung, West Java, Banten, Central Sulawesi, Gorontalo, and West Papua. Then the provinces where the level of inequality in income distribution is increasing every year is the Province; South Sumatra, DKI Jakarta, East Kalimantan, North Kalimantan, North Sulawesi, and North Maluku. The rest are provinces that experience an inequality of income distribution that is getting lower and higher but fluctuating in 2016 and 2017.

Urban areas have a high level of inequality in income distribution compared to rural areas. Java and Sulawesi are the islands that have the highest level of income distribution inequality in urban areas, while the lowest income distribution in urban areas is Maluku and Papua. While the level of inequality of low-income distribution in rural areas is the island of Borneo, while the island of Sulawesi, the island of Maluku and Papua are islands with high levels of inequality in income distribution. Mann Whitney test results show that there is a significant difference in the Gini index between urban and rural areas in Indonesia from 2015 to 2017.

The Wilcoxon test results show that there are substantial Gini index differences before regional autonomy and after regional independence in Indonesia, namely in 1998 and 2017, where high-income distribution disparities occur after regional autonomy than before regional autonomy.

The process of income equalization is challenging to be assigned to the market mechanism solely, but requires government intervention that consciously directs development planning policies and strategies for regions with inequality of income distribution that is classified as medium and high or so that the inequality of income distribution is not higher: In reducing the high level of inequality in income distribution on the island of Java, the government is expected to encourage synergies of large and medium-scale businesses with micro and small-scale businesses, so that there is an impact of the development of medium and large scale businesses on capacity changes micro and small-scale business entities.

Areas where income inequality is not getting smaller from year to year, so the government can make human capital in each region optimally for the sake of the way of economic activities by empowering the community to manage the potential of the area. The trick is to provide subsidies that are material or non-material, such as sending experts to offer to counsel, so that the community can be creative in managing the potential in their area. The industrial effort created by this empowerment program will make business diversification in various economic

sectors, which in the end will result in more community and regional income sources and higher community competitiveness. This people's economic empowerment will make business and resource ownership among the population even better so that it can reduce the inequality of income distribution among groups of people.

Inequality of income distribution in urban areas can be reduced if: First, the government encourages more labor-intensive investments so as to provide employment. With the availability of employment, it is expected to reduce unemployment and increase community income so that the inequality of income distribution can be reduced through wage channels and economic development can be in line with the improvement in the income level of the population; Second, the regional government also needs to carry out a policy of increasing the wages of workers and workers by being adjusted back to the minimum current decent living needs due to inflation through a system of raising the provincial minimum wage (UMP) to reduce the vast income gap between workers and employers in the modern and urban sectors.

Regions with high levels of inequality in income distribution in rural areas can develop agribusiness and agro-industries to create sectoral linkages to lift the agricultural industry. Rural agriculture and economic development can increase the capacity and competitiveness of agricultural communities, through revitalization of counseling and assistance to farmers, as well as the growth and strengthening of agricultural and rural institutions to improve the bargaining position of farmers.In order for the implementation of regional autonomy not to cause an increasingly unequal income distribution, the provincial governments of each province are expected to maximize the role of fiscal decentralization to carry out their functions effectively and efficiently, so that local governments can increase their fiscal capacity through the development of economic activities and intensification and extensification. Locally-generated revenue, for example, by increasing government spending on productive expenditures such as infrastructure and the development of strategic business areas to increase the amount of investment as development capital.

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