

ANALYSIS OF ECONOMIC GROWTH AND INEQUALITY BASED ON ECONOMIC GEOGRAPHIC REVIEW IN EAST NUSA TENGGARA

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Abstract: *The geographical condition of NTT of which characteristic is archipelagic dry land and the location of its astronomy is at the southernmost gate of central Indonesia is becoming an international concern because it is directly adjacent to RDTL and Australia. The distribution of 22 districts / cities with various socio-cultural characteristics and the potential of the region is likely to be the cause of economic imbalances. This study aims to reveal economic growth in several districts / cities in NTT Province which is compared to the imbalance of economic development between districts. The problem solving approach and achieving the goals were conducted by descriptive and secondary data analysis, which is calculating several indicators such as the rate of economic growth and the rate of poverty reduction; regional economic growth indicators based on klasen typology and theil entropy index calculation as a proxy for the level of inequality between districts / cities in NTT Province. Based on the results of the analysis and discussion, there are significant economic growth imbalances between districts/ cities in NTT. Kupang City as the capital of the NTT Province is the only one that is categorized as a developed and fast-growing region, while other districts are categorized as growing regions. Another thing that can be stated is that there is a disparity or inequality in development between regions in NTT, which is indicated by a different theil entropy index. In addition to Kupang with its highest level of inequality, the districts on the mainland of Timor are still more unbalanced than the districts on the mainland of Flores and Sumba. The regencies that are spread over the cluster of islands are relatively more evenly distributed. It is suggested that it is necessary to encourage the development of investments based on superior and specific sectors with the support of potential resources available and spread in each district / city in NTT to create more operational policies and programs. In addition, the field of development of non-conventional sectors such as the tourism sector in the region which is the main driving sector of regional economic development needs to be developed more broadly.*

Keywords: *economic growth rate, inequality between regions, economic geography*

I. INTRODUCTION

Economic imbalances that arise are often used as determinant indicators such as differences in average per capita income, between groups of income levels, between employment groups, and between regions. In addition, per capita PDRB as an economic indicator that is commonly used to measure the welfare of the population in an area, in which it can be interpreted that the greater the PDRB per capita, the better the level of community welfare, and vice versa. Certain regions that experience higher economic growth than other regions will face an increasing burden because many residents from other regions continue to move into these areas.

This condition occurs because there are more employment opportunities. The Province of East Nusa Tenggara (NTT) which is an island province that covers 22 regencies and cities shows the dynamics of high economic development differences. From a number of existing city districts and based on Presidential Regulation No. 131 of 2015, in terms of the economic aspects of society; human resources; facilities and infrastructure; regional financial capacity; accessibility and aspects of regional characteristics, there are only 4 districts/cities (18.18%) categorized as not underdeveloped districts while the remaining 81.82% are underdeveloped districts. The four districts/cities are Kupang, Sikka, Ngada, and East Flores.

The results of the analysis of the Regional Development Performance Evaluation Team (EKPD) of NTT Province in 2017 that took samples in two underdeveloped districts, Ngada and Sabu Raijua, showed that the lagging experienced was more due to the low productivity of mainstay commodities at the community level; the low connectivity with the center development inside and outside of the district due to the weak development support infrastructure. The scarcity of natural resources is caused by the isolation of the region due to location and weak transportation infrastructure to and from the area that connects with the growth center area outside the district. Based on the background of the study above, this study was conducted to reveal the economic growth condition in several districts/cities in NTT compared to the imbalanced economic growth between the districts. At the same time it becomes an important information material for the regional government of the city in particular and the province of NTT in general in developing economic development policies and increasing the distribution of development outcomes.

II. RESEARCH METHODOLOGY

The research, which was conducted in 21 districts and 1 city in NTT Province, lasted for four months from June to November 2018. This study utilizes descriptive and secondary data analysis which are indicated by analysis result on; [1] rate of economic growth and rate of poverty reduction, [2] klassen typology economic growth analysis, and [3] regional inequality analysis. The formula utilized in the data analysis over the three indicators are;

- a. Rate of Economic Growth [LPE] and Rate of Poverty Reduction [LPK]

$$LPE = \frac{PDRB_t - PDRB_{t-1}}{PDRB_{t-1}} \times 100\% \text{ and } LPK = \frac{AK_t - AK_{t-1}}{AK_{t-1}} \times 100\%$$

- b. The analysis of Klassen typological economic growth refers to the following table of area classification

$\begin{matrix} y \\ r \end{matrix}$	$y_i > y$	$y_i < y$
$r_i > r$	Fast forward and fast growing area	Growing area
$r_i < r$	The depressed region forward	Relatively disadvantaged region

c. Regional inequality analysis

1) Inequality between districts within the province

$$I = \sum (Y_j / Y) \log \left[\frac{Y_j / Y}{X_j / X} \right] \times 100\%, \text{ explains that;}$$

[I] the overall entropy index of economic inequality, [Yj] The regency / city per capita PDRB

[Y] PDRB per capita in NTT province, [Xj] number of regency / city residents, and [X] population of NTT province. Regency economic disparity in an island / group of islands in NTT

$$I(y) = \sum (Y_j / Y) \log \left[\frac{y_i / Y_j}{x_i / X_j} \right], \text{ explains that}$$

[Xj] number of regency / city residents, and [X] population of NTT province, [yi] = PDRB per capita of NTT province, [Yj] PDRB per capita city district j, [xi] Total population of NTT province, [Xj] Total population of the jth city district.

Economic inequality between islands in NTT

$$I(w) = \sum (Y_j) \log \left[\frac{Y_j}{X_j} \right], \text{ explains that;}$$

[I (w)] Entropy index between islands in NTT province, [Yj] Average per capita PDRB of district j, [Xj] Total population of the jth city district.

Furthermore, to find out whether there is a correlation between the level of inequality with each variable of the level of economic growth and the number of poor people, Pearson correlation analysis was conducted, according to Sugiono (2007), which is

$$r = \frac{n \sum X_i Y_i - (\sum X_i)(\sum Y_i)}{\sqrt{\{n \sum X_i^2 - (\sum X_i)^2\} \{n \sum Y_i^2 - (\sum Y_i)^2\}}}, \text{ explains that;}$$

[r] Correlation value, [n] Number of samples, [X] Respectively to the rate of economic growth and the percentage of poor people, [Y] Theil entropy index.

III. DISCUSSION

3.1 Gross Regional Domestic Product and Economic Growth

In 2016, NTT's PDRB was recorded at Rp. 60,058,910 million, an increase from Rp. 43,846,610 million in 2010. PDRB according to city districts, besides Kupang City with a value of Rp.13,826.10 million in 2016 which increased from Rp.9,066,270 million in 2010, districts that also have high ADHK PDRB values are Kupang, TTS and East Flores districts which is above

three trillion rupiah. The districts with the lowest ADHK GRDP are Central Sumba and Sabu Raijua, which are still under one trillion rupiah. In 2016 of NTT's total GRDP of IDR 60,058,910 million, the largest contribution was made by Kupang City by 23.02%, while the smallest was by Central Sumba District by 1.08% (Figure 1). Four districts with a contribution of more than five percent each Kupang regency by 6.94%; South Central Timor Regency (TTS) by 6.86%; Ende Regency was 5.94% and East Flores Regency was 5.09%.

The city of Kupang, which dominates NTT's GRDP contribution relative to other regencies, is 4-5 times the average of the entire regency. Basically due to the more concentrated various investment activities and other economic activities in Kupang as the center of government. In such conditions, the economic turnover of the people and region is relatively greater, which in turn has an impact on economic progress and wider development. Meanwhile, the low PDRB contribution from a number of other districts in NTT, in essence gives a strong indication of the slow economic development and development in each region. Thus, in the framework of boosting the acceleration of economic and regional development, efforts are needed to increase investment by prioritizing the specific potential of each district.

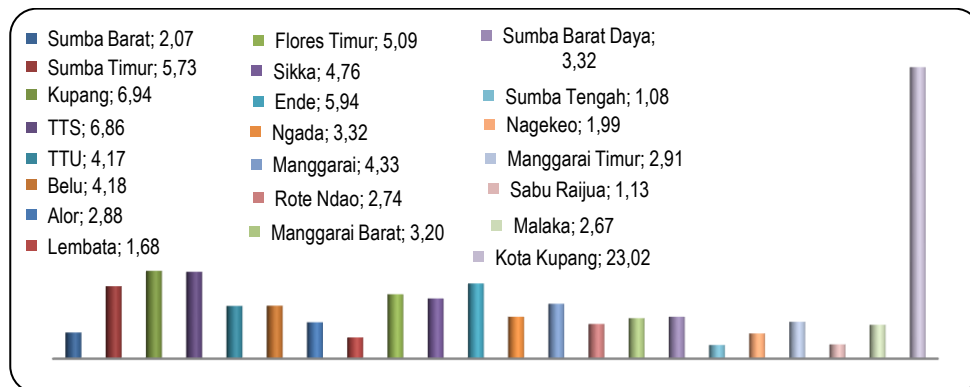


Figure 1. Contribution of ADHK GRDP Kota Regency To ADHK GRDP NTT Province in 2016

Regional economic growth by regency and NTT until 2016 is presented in Table 1. NTT's average economic growth in 2016 was 5.17% and this value is still lower than the economic growth in Kupang which is 7.23%. There are also five districts with growth rates above 5%, namely the districts of East Sumba, Ende, Ngada, Manggarai and Sabu Raijua. While other districts have growth of under 5%. The City of Kupang, the districts of Ngada and Manggarai have average economic growth above NTT's economic growth between 2010-2016. This gives a signal that the regency area with high economic growth level should be able to boost the economic development of the region and the community, which in turn is expected to be able to accelerate the increase in the welfare of the population. The economic growth of urban districts in NTT mapped by island shows that there are insignificant differences (Figure 2). Figure 2 shows that the average economic growth of regencies on mainland Flores is still better than districts on mainland Timor other than Kupang. Besides, the average economic growth in the island districts (Lembata, Alor, Rote Ndao and Sabu Raijua districts) is actually still greater than the average of the regencies on the mainland Flores, Sumba and Timor besides Kupang City.

Table 1. Economic Growth Rates by Regency Cities in NTT

No	Districts/Cities	Economic Growth (%)	No	Districts/Cities	Economic Growth (%)
1	Sumba Barat	4,93	12	Ngada	5,19
2	Sumba Timur	5,03	13	Manggarai	5,20
3	Kupang	4,87	14	Rote Ndao	4,83
4	TTS	4,34	15	Manggarai Barat	4,12
5	TTU	4,42	16	Sumba Barat Daya	4,97
6	Belu	4,97	17	Sumba Tengah	4,08
7	Alor	4,72	18	Nagekeo	4,58
8	Lembata	4,86	19	Manggarai Timur	4,88
9	Flores Timur	4,59	20	Sabu Raijua	5,54
10	Sikka	4,33	21	Malaka	4,81
11	Ende	5,09	22	Kota Kupang	7,23
NTT					5,17

The high level of economic growth that occurred in Kupang that is exceeding the economic growth of the province of NTT is essentially due to that until now the city of Kupang is still the orientation of regional economic development in NTT. This can be understood given the position of Kupang as the center of government, economy, education and various other aspects, and has been relatively equipped with various development facilities and infrastructure that are more adequate. As a result, the direction of development involving private sector participation is still greater than in other districts. In turn, the drive for economic progress in the Kupang is greater and faster.

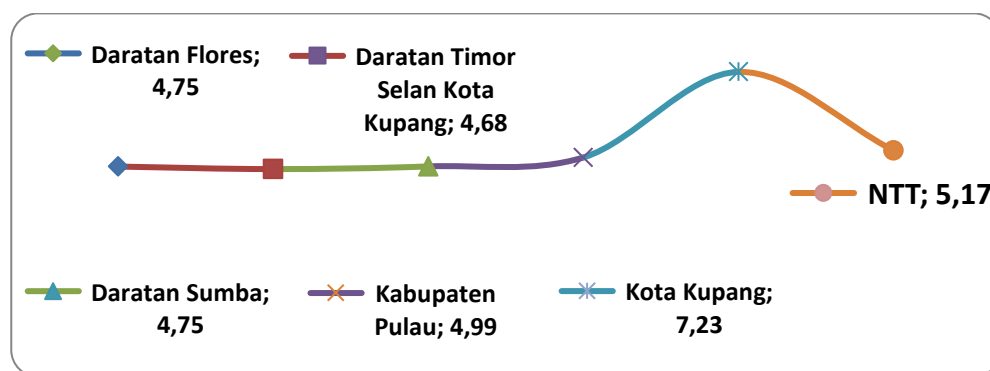


Figure 2. Average Regency Economic Growth Rate by Island Distribution

3.2 Population Poverty Rate

In 2017, out of a total population of NTT of 5,287,302 people, 21.77% were still classified as poor. This number has fluctuated since 2010. The highest percentage of poor population was found in Central Sumba District which was 35.87% and the lowest was in Kupang City (9.75%) and East Flores Regency was 10.72%. If it is compared to the national poverty percentage, which in 2017 was below 12%, it can be said that the percentage of poverty in NTT that spreads in all districts is still high and should be the focus of attention to be addressed as soon as possible. Thus, poverty alleviation programs formulated in each district government must continue to be encouraged, while still being based on overcoming the factors and root causes, which of course varies according to their respective regions.

Table 2. Percentage of Poor Population by City District in NTT in 2010-2017

Districts/Cities	Year							
	2010	2011	2012	2013	2014	2015	2016	2017
West Sumba	31,66	30,11	29,91	29,04	27,91	30,63	29,22	29,17
East Sumba	32,34	30,80	30,66	28,64	27,74	31,65	31,33	30,94
Kupang	20,66	19,65	19,35	30,88	19,20	23,27	22,92	22,63
South Timor Tengah	28,57	27,19	27,64	27,88	26,85	31,35	29,98	29,41
North Timor Tengah	22,62	21,54	21,63	21,63	20,95	25,32	24,00	23,46
Belu	28,92	14,70	27,25	14,65	26,79	16,81	15,75	15,89
Alor	21,11	20,08	20,23	20,14	19,54	22,92	22,31	21,64
Lembata	26,60	25,39	24,92	23,36	22,45	27,18	26,14	26,33
East Flores	9,59	9,12	9,15	8,11	7,86	9,72	10,31	10,72
Sikka	13,33	12,70	12,86	12,69	12,29	14,24	14,31	14,19
Ende	21,55	20,53	20,84	21,06	20,40	23,44	23,87	23,93
Ngada	12,03	11,44	11,36	11,25	10,80	12,83	12,66	12,70
Manggarai	22,83	21,72	21,58	21,06	20,25	23,16	22,42	21,83
Rote Ndao	32,72	31,26	29,44	28,50	27,13	30,46	29,30	28,55
Manggarai Barat	20,32	21,60	18,91	18,31	17,31	20,26	19,24	18,76
Sumba Tengah	33,92	32,27	32,12	32,12	31,55	36,04	36,40	35,87
Sumba Barat Daya	29,71	28,28	27,81	27,01	25,92	30,25	30,48	29,99
Nagekeo	12,63	12,08	12,05	12,11	12,07	14,33	13,57	13,45
Manggarai Timur	25,88	24,65	24,60	24,95	24,11	28,50	27,61	26,72
Sabu Raijua	41,27	39,70	38,04	31,27	29,70	33,07	32,18	30,84
Malaka	na	na	na	na	na	17,90	16,98	16,59
Kota Kupang	10,53	10,05	9,77	9,18	8,76	10,16	9,84	9,75
NTT	21,69	20,65	20,53	20,33	19,75	22,65	22,10	21,77

Source: BPS NTT, 2018.

na = no data

Distribution of poor population by island, until 2017 shows that the poorest population is still in the regency on the mainland of Sumba, which is an average of 31.49%, while relatively low is found in regencies on the mainland of Flores at 17.21% (Figure 3). The high poverty rate on the mainland of Sumba relative to the regencies on the mainland of Timor and Flores can be thought to be closely related to the lack of focus on poverty alleviation policies that can be formulated and implemented by the local district government. In addition, the potential of available natural resources such as tourism which is suspected to be quite large has not been able to be developed optimally, including overcoming the root causes which are the main causes of poverty in communities and regions on the whole of Sumba.

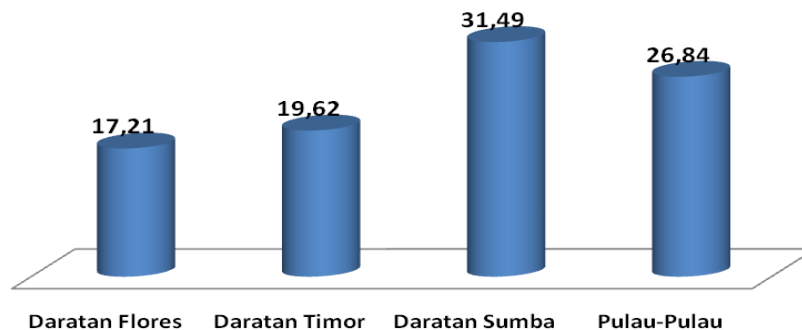


Figure 3. The Percentage of poor population in districts according to island in NTT in 2017

The very strong cultural ties accompanied by various rituals that are still strongly embedded in the structure of the Sumba community, for example those relating to death ceremonies and / or marriages and even dispute resolution at the community level, often correlate strongly with costs incurred by the community. As a result, social and cultural costs have been seen as a trigger for the high poverty in the region and communities on the Sumba mainland today.

3.3 *The Growth Analysis of Klassen Typology*

The Klassen typological analysis is used to determine the regional classification based on two main indicators which are economic growth and regional per capita regional gross domestic product or income. Based on Klassen typology, the results of the analysis (Table 4.12) are directed to find out the pattern of economic growth between municipal districts in relation to the level of progress of the region concerned.

Table 3. The Results of Klasen District/ City Typological Analysis in NTT

No	District/City	Regency Economic Growth	GRDP per Reg (yi)	GRDP per Reg Prov (Y)	Provincial Economic Growth Rate (r)	(ri) > (r)	(ri) < (r)	(yi) > (Y)	(yi) < (Y)	Kwadran
1	West Sumba	4,98	10.026.954	11.541.991	5,38	-	+	-	+	IV
2	East Sumba	5,05	13.783.403	11.541.991	5,38	-	+	+	-	III
3	Kupang	4,99	11.567.757	11.541.991	5,38	-	+	+	-	III
4	South Timor Tengah	4,86	8.924.734	11.541.991	5,38	-	+	-	+	IV
5	North Timor Tengah	4,87	10.126.165	11.541.991	5,38	-	+	-	+	IV
6	Belu	5,73	11.941.638	11.541.991	5,38	-	+	+	-	III
7	Alor	4,55	8.572.315	11.541.991	5,38	-	+	-	+	IV
8	Lembata	4,71	7.476.388	11.541.991	5,38	-	+	-	+	IV
9	East Flores	4,76	12.274.628	11.541.991	5,38	-	+	+	-	III
10	Sikka	4,87	9.061.865	11.541.991	5,38	-	+	-	+	IV
11	Ende	5,06	13.169.857	11.541.991	5,38	-	+	+	-	III
12	Ngada	5,19	12.757.702	11.541.991	5,38	-	+	+	-	III
13	Manggarai	5,09	8.033.233	11.541.991	5,38	-	+	-	+	IV
14	Rote Ndao	5,00	10.697.435	11.541.991	5,38	-	+	-	+	IV
15	West Manggarai	4,76	7.467.137	11.541.991	5,38	-	+	-	+	IV
16	Middle of Sumba	4,82	9.319.886	11.541.991	5,38	-	+	-	+	IV
17	Southwest Sumba	5,01	6.113.252	11.541.991	5,38	-	+	-	+	IV
18	Nagekeo	4,59	8.466.704	11.541.991	5,38	-	+	-	+	IV
19	East Manggarai	5,20	6.325.645	11.541.991	5,38	-	+	-	+	IV
20	Sabu Raijua	5,16	7.633.576	11.541.991	5,38	-	+	-	+	IV
21	Malaka	5,01	8.752.911	11.541.991	5,38	-	+	-	+	IV
22	Kupang	6,74	34.370.348	11.541.991	5,38	+	-	+	-	I

Source : The Data of BPS NTT, 2017

Quadrant I = The Advanced and Growing Fast Region

Quadrant II = The Depressed Forward Region

Quadrant III = The Developing Region

Quadrant IV = The Relatively disadvantaged region

The analysis results presented in Table 3 show that only Kupang City is included in quadrant I, which is currently categorized as a fast-growing and fast-growing region. Beside, nothing is categorized in quadrant II which belongs to economically advanced but depressed regions. There are six districts that are economically included in quadrant III, which is a growing region which are East Sumba, Kupang, Belu, East Flores, Ende and Ngada. While the remaining 15 other districts are economically categorized as relatively disadvantaged areas. Regencies that are economically categorized as growing regions and areas that are relatively lagging behind are dominant in a number of districts in NTT, indicating that economic development carried out so far has not been able to have a significant impact on economic progress for the region or its population. This means that creativity is needed from each district government in finding and designing regional development policies and programs that are in accordance with their capacity and potential. Various natural resources, location or location superiority, tourism potential and existing human resources are potentials that must be managed and developed responsibly and optimized for the sake of accelerating the progress of regional economic development. The development of types of commodities and superior and specific products owned by each regency must be utilized optimally, through investment activities both by local investors and from outside. Furthermore,

the role of the community in participating in developing the regional economy is a strong key in accelerating the development of various types of products and superior commodities that exist in each region.

3.4 Analysis of Theil Entropy Index

Theil Entropy Index basically explains the imbalance of development between regions / regions as indicated by the per capita GRDP. If the index is close to zero, the distribution of GDP is evenly distributed between groups of regions or in other words, the distribution is more even. Likewise, if it approaches one, the distribution of GRDP is not evenly distributed among regional groups. Based on this understanding, Table 3 shows the average entropy theil index of each district in NTT. The phenomenon that can be explained from the results of the analysis as shown in Table 3, shows that for the regencies on the mainland of Flores, Sumba and also the islands with a high degree of inequality, it basically strengthens Kuznets's assumption that economic inequality will enlarge when the region is still at the beginning of growth. This is true that East Manggarai Regency on the Flores mainland, Southwest Sumba Regency on the Sumba mainland and Lembata Regency on the islands are division districtz, so that they are still at the stage of economic development in each region.

Especially Kupang with a relatively high level of economic inequality compared to other regencies on the mainland of Timor is suitable with Robinsin's opinion (1976) which states that a country or region will experience a development change from focusing on the agricultural sector in rural areas to industrial sector in urban areas. In this situation, the dominant agricultural sector in a region will give a characteristic of low per capita income but relatively lower income gap. On the other hand, in areas that are dominated by the industrial / urban sector usually have a high income per capita but the degree of inequality is also relatively high. This condition also occurs in Kupang, which is the only city with regional economic dominance not in the agriculture / primary sector, but rather in the secondary and tertiary sectors.

Table 4. Theil Entropy Index Average in Regency Cities in NTT, according to the Island Cluster

No	Regency / City	Index Theil Entropy	No	Regency / City	Index Theil Entropy
A.	Flores Island		B.	Timor Island	
1	East Flores	0,0207	1	Kupang	0,0194
2	Sikka	0,0697	2	South Timor Tengah	0,0846
3	Ende	0,0391	3	North Timor Tengah	0,0373
4	Ngada	0,0308	4	Belu	0,0268
5	Manggarai	0,0905	5	Malaka	0,0604
6	West Manggarai	0,0863	6	Kupang	0,2305
7	Nagekeo	0,0618			
8	East Manggarai	0,1130			

Source : Primary Data, 2017

Table 5. Average Theil Entropy Index in Regency/City in NTT, according to the Island Cluster

No	Regency/City	Theil Entropy Index	No	Regency/City	Theil Entropy Index
C.	Sumba Island		D.	Islands	
1	West Sumba	0,0301	1	Alor	0,0696
2	East Sumba	0,0699	2	Lembata	0,0740
3	Midlle Sumba	0,0364	3	Rote Ndao	0,0157
4	Southwest Sumba	0,1215	4	Sabu Raijua	0,0619

Source : Primary Data, 2017

Theil entropy index at NTT province level, also shows the same tendency, even relative to the level of inequality which is increasingly uneven (Figure 4). In 2012 there was a slight decrease, but it continued to increase until 2016. This indicates that there is an increase in economic inequality in the province of NTT.

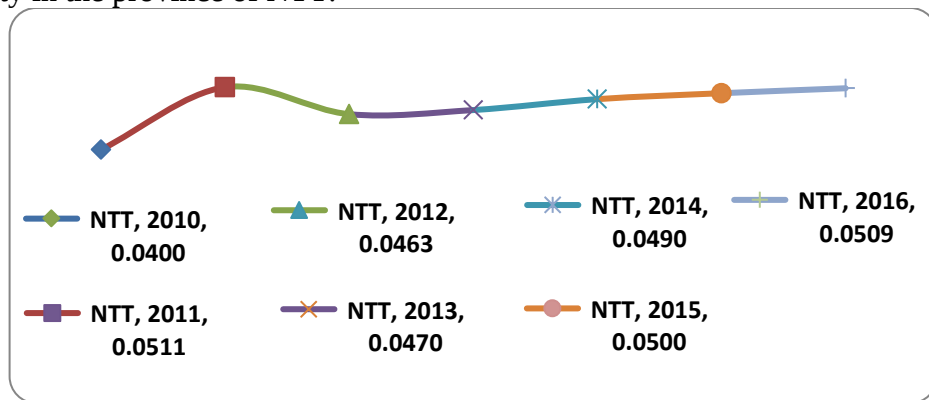


Figure 4. Theil Entropy Index of NTT Province Year 2010-2016

Economic inequality in NTT is essentially not solely due to internal factors, but the influence of external factors, especially those related to macro conditions, is expected to help determine the level of inequality that occurs. In order to overcome the above conditions, then there are at least six ways that can be taken, as stated by Literature (2017), which are: a) Good quality of economic growth; b) Redistributive fiscal policy; c) Invest in social protection; d) Strengthening equality in opportunity; e) Against rent practices, and f) Changes in the political system. All of this does not singly affect inequality or inequality, but interact with one another.

Comparison of economic inequality is also conducted by comparing the average value of theil entropy index between island / land clusters. The figure 5 shows the lowest economic inequality found in districts spread across the islands, while the highest inequality occurred in districts on mainland Timor. An interesting thing that can be explained is that although the level of economic growth on the mainland of Timor, Sumba and Flores is relatively higher than the regency

on the mainland of the islands, the economic inequality in the islands is relatively lower. The description of the results related to differences in inequality between island groups strengthens Literature income (2017) that high economic growth does not guarantee that it will reduce the unemployment rate and the level of economic inequality. For this reason, development targets should be directed towards quality economic growth by taking into account income distribution and poverty and unemployment alleviation.

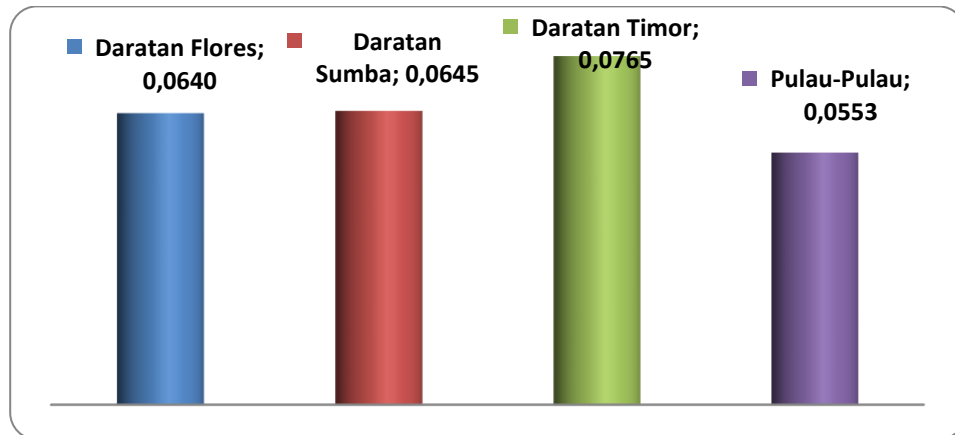


Figure 5. Theil Entropy Index of NTT Province according to the Island Cluster

Government policies at the regency / municipality level in NTT must be able to guarantee the achievement of increasingly high quality economic growth, which is accompanied by broader community involvement and enjoy productive economic results in the economic system. Quality economic growth is also certain to open up wider employment opportunities if it is also supported by the growth and development of the real sector and other financial sectors at the community and regional level. when quality economic growth is accompanied by a better distribution of community income, it will greatly help accelerate poverty reduction in a region or country (Ravallion, 2004).

Sastra (2017) identifies several factors that make the level of inequality tend to be wider and harder to tolerate. The factors are: a) failure in public institutions and policies; b) poverty and minimal investment in basic needs infrastructure; c) providing employment and economic structure; d) a rent hunt; e) market failure; f) globalization, political factor and economic factor, and g) historical factor. Based on the description of existing factors, it can be ensured that efforts to overcome the current economic disparities in a number of regencies in NTT will be realized if each regency is able to identify them appropriately and subsequently formulate and implement their policies and programs appropriately. It is possible that a number of trigger factors vary from one district to another, so the determination of priority factors to be resolved is an important and strategic step that can be applied in each district.

3.5 Relationship of Regional Inequality with Economic Growth and Poverty Rate

In order to find out whether there is a correlation between regional inequality with the level of economic growth, as well as regional inequality with the level of poverty, it is carried out using the Pearson correlation coefficient calculation approach. The results of the analysis obtained the value of the correlation coefficient between regional inequality with the level of economic growth in NTT of - 0.4639. While the correlation coefficient between regional inequality with poverty levels in NTT is 0.0917. The magnitude and direction of the correlation coefficient between regional inequality and the level of economic growth in NTT provides the meaning that the two variables have a unidirectional relationship, where the greater the level of economic growth can certainly reduce the level of regional inequality. In addition, the magnitude of the correlation between the level of poverty with regional inequality in NTT shows a direct relationship, where the results of the analysis indicate that the greater the level of poverty can certainly lead to an increase in regional inequality in NTT, and vice versa.

In order to find out statistically whether or not a strong relationship formed between the variable levels of inequality with growth and the level of inequality with poverty in NTT is done by t test. The results of the calculation of the t-value for the relationship between inequality with economic growth of 1.1710. This t-value is at $t_{0.975}$ of 2.090. In other words, the value of r-correlation between inequality and economic growth in NTT has a strong correlation in the two-way test which is between -2.090 and +2.090. T-test value to test the relationship between inequality with poverty levels obtained at 0.2059. Nilai t_{hitung} pada uji dua arah berada pada $t_{0,60}$ sebesar -0,253 dan +0,253. It can also be stated that although there is a correlation between the level of inequality with poverty in the community in NTT but it has a relatively weak degree of relationship.

The related test results, it can mean that economic growth that increased significantly can reduce the level of inequality that arises between the districts of the city in NTT. For this reason, in the medium to long term, efforts to improve equity and / or reduce the level of inequality between regions in the regency of NTT are urgently needed to increase the rate of economic growth through increasing the rate of investment based on the potential of existing and scattered resources in each region. The investment impulse meant should be prioritized in potential economic sectors by optimally involving community participation so as to reduce poverty that arises. Another phenomenon that can be explained by the results of analysis and testing of the correlation coefficient between poverty levels and shows that the greater the level of poverty tends to further increase economic inequality. It means that when each regency / municipality in NTT can reduce the poverty rate of the community and its region, it is certain to be able to reduce the level of existing economic inequality

IV. CONCLUSION

1. GRDP contribution from several Regency Cities in NTT to the last NTT GRDP in 2016 amounted to Rp.60,058,910 million, the largest was Kupang City by 23.02% (Rp. 13,826,710 million), while the smallest was contributed by Central Sumba Regency in the amount of 1.08% (Rp. 648,720 million). The dominant role of Kupang City in contributing GRDP to the Province of NTT can be understood, given that the City of Kupang as the administrative center

of the Province of NTT also has a greater investment opportunity compared to other regencies in NTT. In such conditions, the economic turnover of the people and the region is greater, which in turn has an impact on economic progress and wider development. Rataan pertumbuhan ekonomi Provinsi NTT antara tahun 2010-2016 sebesar 5,17%, dan angka ini cenderung fluktuatif. Pemetaan pertumbuhan ekonomi kabupaten menurut gugus pulau di luar Kota Kupang, memperlihatkan, bahwa rata-ran pertumbuhan Kabupaten pulau masih lebih tinggi (4,99%) dibanding kabupaten di daratan Flores sebesar (4,75%); Kabupaten di daratan Timor sebesar 4,68% dan Kabupaten di daratan Sumba 4,75%.

2. The poverty rate in Kota Regency also shows fluctuating developments in a number of Kota Regencies between 2010-2016. Until 2016, the percentage of poor people was mostly in Central Sumba by 35.87% while the lowest was in East Flores by 10.72%, slightly higher than the poor in Kupang City by 9.75%. The average percentage of poor people in NTT Province until 2016 was 21.77% which actually experienced an increase compared to 2010 which was 21.69%.
3. Based on the results of Klasen's typology analysis, it shows that only Kupang City is categorized as a fast-growing and fast-growing region. There are no regencies that are categorized as economically advanced but depressed areas. There are six districts that are economically growing regions. These districts are East Sumba, Kupang, Belu, East Flores, Ende and Ngada Regencies. A total of 15 other regencies are economically categorized as relatively disadvantaged areas.
4. Kupang although in terms of economic progress is relatively better than other districts in NTT, but it has the highest inequality as indicated by the highest theil entropy index of 0.2693. The difference in inequality between municipalities in NTT according to island clusters, shows that districts that spread on islands are relatively lower than those that spread on mainland Timor, Sumba and Flores. Based on the average theil entropy index, it shows that the regencies that are on the mainland of Timor have the highest development inequality with the theil entropy index values of 0.0765; then the Regency on the Flores mainland by 0.0645 and the Regency on the Flores mainland by 0.0640.
5. There is a negative and significant correlation between economic growth and the level of regional inequality, where when there is an increase in economic growth it is certain to reduce inequality, and vice versa. It was also found that the greater the level of poverty tends to increase economic inequality. It means that when each regency / municipality in NTT can reduce the poverty rate of the community and its region, it is certain to be able to reduce the level of economic inequality that exists.

REFERENCES

- Adelman, Irma and Cynthia T. Morris., 1973. *Economic Growth and Social Equity in Developing Countries*. Stanford: Stanford University Press.
- Adrei, Ana and Liliana Craciun, 2014. *Inequality and Economic Growth: Theoretical And Operational Approach*. Theoretical and Applied Economics Volume XXII (2015), No. 1(602), pp. 177-186.

- Ardani, A. 1992. *Analysis of Regional Growth and Disparity: the Impact Analysis of The Project on Indonesian Development*. Unpublished Dissertation. USA: University of Pennsylvania Philadelphia.
- Arsyad, Lincoln., 1999. Pengantar Perencanaan dan Pembangunan Ekonomi Daerah, BPFE, Jogjakarta
- _____, 2004. Ekonomi Pembangunan. Edisi Keempat, STIE YKPN, Yogyakarta
- _____, 2016. Ekonomi Pembangunan. Edisi kelima, cetakan Ketiga. Penerbit UPP STIM YKPN.
- Boediono, 1985, Teori Pertumbuhan Ekonomi, BPFE, Yogyakarta
- Kuncoro, M., 2002. Analisis Spasial dan Regional. Studi Aglomerasi dan Kluster Industri Indonesia. Penerbit dan Pencetak. AMP YKPN, Yogyakarta.
- _____, 2004. Otonomi dan Pembangunan Daerah : Reformasi, Perencanaan, Strategi, dan Peluang. Yakarta : Erlangga
- _____, 2006, Ekonomi Pembangunan, Teori, Masalah, dan Kebijakan, Yogyakarta: UPP AMP YKPN.
- Kuznets, Simon, 1973. *Modern Economic Growth : Finding and Reflections*. The American Economic Review, Vol. 63, No. 3, pp. 247-258
- Nugroho, I dan R. Dahuri, 2004. Pembangunan Wilayah. Perspektif Ekonomi, Sosial dan Lingkungan. Cetakan Pertama. Penerbit LP3ES, Jakarta.
- Rahardja, P dan M. Manurung, 2008. Teori Ekonomi Makro : Suatu Pengantar. Fakultas Ekonomi, Universitas Indonesia.
- Ravallion, M., 2004. *Competing Concepts of Inequality in the Globalization*. Washington DC : World Bank.
- Robinson, S., 1976. “*A Note on the U-hypothesis Realting Income Equality*”. American Economic Review.
- Sastra, E, 2017. Kesenjangan Ekonomi. Mewujudkan Keadilan Sosial Di Indonesia. Cetakan Pertama. Penerbit Expose, Jakarta.
- Sjafrizal, 2008. Ekonomi Regional. Teori dan Aplikasi. Cetakan Pertama. Penerbit Baduose Media, Padang, Sumatera Barat.
- Sugiyono. 2007. Metode Penelitian Kuantitatif, Kualitatif dan R&D. Bandung : Alfabeta
- Sukirno, Sadono, 1985. Ekonomi Pembangunan, LPFE UI, Jakarta.
- Tambunan, Tulus., 2001. Perekonomian Indonesia: Beberapa Masalah Penting. Jakarta : Ghalia Indonesia Erlangga
- Tarigan, R., 2003. Perencanaan Pembangunan Wilayah. Jakarta: Bumi Aksara.
- Todaro, Michael P., 2004. Pembangunan Ekonomi Di Dunia Ketiga. Edisi Kedelapan. Penerbit Erlangga, Jakarta.