
**ANALYSIS OF INTER-REGENCY DEVELOPMENT INEQUALITY
IN D.I YOGYAKARTA PROVINCE**

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ABSTRACT

Economic development essentially aims to improve society so that economic growth can be increased and evenly distributed. The problem is that the different growth rates between regions cause a hierarchy and scale of interaction between different regions. This study wants to show the extent to which development inequality follows the existence of a Decentralization system. To explain the spread of economic inequality, the research method used the analysis of the Wililiamson index, Location Quotion Analisis, the analysis of typology klassen. The results of the study, there are economic inequalities between regencies in the Special Province of Yogyakarta.

Keyword : Economic Growth, Economic Development, Development Inequality

A. INTRODUCTION

Province of D.I Yogyakarta has the privilege that there is a kingdom that regulates policies in the area, besides that the Sultan who also serves as Governor makes government affairs indirectly regulated by the Sultan. It means everything was arranged by the Sultan as Governor, but through Undang-undang No. 22 Tahun 1999, regional development is carried out through strengthening regional decentralization and managing resources that lead to the realization of good governance. Regional decentralization gives local governments the authority to organize and manage their own government affairs and the interests of the local community.

Each local government is very dominant in determining policies in their regions so that between local governments have different policies. this has led to regional inequality between regions. The rate of economic growth among districts in D.I Yogyakarta shows a variety of levels and will have an impact on regional inequality

This study seeks to analyze development inequality between districts in the Special Province of Yogyakarta during the period 2006-2008. This research was carried out in districts in the Special Province of Yogyakarta which consisted of 4 districts namely Kab. Sleman, Kab. Bantul, Kulon Progo Regency, and Kab. Gunung Kidul

B. METHODS

This research uses quantitative descriptive analysis techniques. The data used is secondary data. the process of collecting research data by means of literature studies and documentation techniques obtained from data originating from government agencies such as BPS, Bapedda, and other relevant agencies. There are four types of data used, (1) data on population of the Province of D.I Yogyakarta in 2007-2009, (2) Yogyakarta D.I GRDP in 2007-2009, (3) data on landuse and infrastructure use in the Province of D.I Yogyakarta in 2009. In this study using several methods of analysis, namely is :

1. To see the inequality of growth in regional development in the Province of D.I Yogyakarta

a. Wilamson index analysis in Tarigan (2005)
index formula from Jeffery G. Williamson :

$$VW = \frac{\sqrt{\sum (Y_i - Y_r)^2} \cdot P_j/P}{Y_r}$$

Information :

VW = Williamson Inequality Index

Y_j = regency per capita GRDP

Y_r = GRDP per capita of the geomer region

P = Number of inhabitants of the geomer region

P_j = Total population of districts in the geomer region

2. To explain the spatial pattern of distribution of development inequality, it is assisted by a combination of several analyzes, namely:

a. LQ Analysis in Sukirno (1985)

This analysis is able to provide a comparison between the capabilities of a sector in the area being studied with the capabilities of the same sector in the wider region

$$LQ = \frac{Y_{ij}/Y_j}{Y_i/Y}$$

Information :

Y_{ij} = GRDP of sector i in district area j

Y_j = GRDP in the district area j

Y_i = GRDP Province of the sector i

Y = Provincial GRDP

b. Typology klassen analysis in Rustiadi. (2011).

This analysis divides four regional classifications, each of which has different characteristics, namely:

i. Quadrant I is an advanced and fast-growing area (high growth and high income)

- which is an area that has a higher economic growth rate and per capita income compared to the average.
- ii. Quadrant II, namely advanced and depressed areas (low growth but high income) is an area that has a lower economic growth rate but higher per capita income compared to the average
 - iii. Quadrant III is a fast developing area (high growth but low income) is an area that has a higher rate of economic growth but lower per capita income compared to the average
 - iv. Quadrant IV, which is a relatively underdeveloped area (low growth and low income) is an area that has an economic growth rate and lower per capita income compared to the average.

Table 1. typology klassen

$\begin{matrix} y \\ r \end{matrix}$	$y_i > y$	$r_i < r$
$r_i > r$	Kuadran I Wilayah Maju dan tumbuh cepat	Kuadran II Wilayah maju tetapi tertekan
$y_i < y$	Kuadran III Wilayah berkembang cepat	Kuadran IV Wilayah relatif tertinggal

Information:

r_i = regency / city ADHK

GRDP growth rate

y_i = Per capita income per district / city

r = growth rate of ADHK GRDP in Province of D.I Yogyakarta

y = Per capita income of the Province of D.I Yogyakarta

3. Analysis of the rate of economic growth,

This analysis aims to determine the rate of economic growth of districts in Province D.I. Yogyakarta in 2007-2009, used the formula:

$$\frac{PDRB_t - PDRB(t-1)}{PDRB(t-1)} \times 100 \%$$

PDRB(t-1)

GRDP t = Gross Regional Domestic Product in year t

GRDP (t-1) = Gross Regional Domestic Product in year t-1

C. RESULT

a. Inequality Analysis

In the analysis of inequality use the williamson index. inequality between regions there are two main constituent components, namely GRDP per Capita and population. GDP per capita is an illustration of the gross added value created by each population through production activities. If the regional GDP per capita increases, hypothetically the growth of the region will also increase.

Tabel 2. Indeks Wiliamson

Tahun	Indeks Wiliamson
2006	0.79
2007	0.78
2008	0.75

The value of inequality according to the Williamson Index is located between 0 and 1 where the closer to zero indicates the imbalance is very light and the closer it is to one, the imbalance is very heavy. The high

b. Pattern of Spatial Development Inequality Spread

i. Economic Structure of D.I Yogyakarta

D.I Yogyakarta Can be seen from the magnitude of the role of each sector in the formation of GRDP. The GRDP used is GRDP at constant prices.

coefficient of inequality is caused by the pattern of economic development that is more sectoral, in which the industrial and processing sectors, electricity, gas and clean water, building and construction, trade, communication and transportation, finance and services are prioritized to spur high economic growth. The average Williamson Index value in the Province of D.I Yogyakarta since 2006-2008 is 0.77. This shows that economic inequality in this region includes quite high inequality where the value is above 0.7. Per capita GRDP in the Province of D.I Yogyakarta is less evenly distributed. Inequality that occurred during 2006-2008 experienced a decline, although it was not significant that for three years there had been an increase in governance.

Regional superior sectors, basically can make a large contribution to the region, not only for the region itself but also to meet the needs of other regions. By looking at GRDP data, a number of regional leading sectors can be identified. To identify the comparative advantage of economic activities in

each District of Province D.I Yogyakarta, Location Quotient (LQ) analysis was used by comparing it to the Province of D.I Yogyakarta.

Based on LQ analysis on the table, the leading sectors in each district in DI Yogyakarta, Bantul Regency and Kulonprogo Regency have similarities, namely three sectors that have the same advantages (1) Mining and quarrying sector, (2) Agriculture, Livestock, Forestry and Fisheries, and (3) the Processing Industry sector.

The most excellent sectors in the two districts are also the same, that is the Mining and quarrying sector. Gunungkidul Regency also has a leading sector in the form of sectors (1) Mining and quarrying, (2) Agriculture, Livestock, Forestry and Fisheries, and (3) Buildings With the

most superior sectors being the mining and quarrying sector. Sleman Regency has three dominant sectors, that are Processing Industry sector, Financial, Corporate Rental & Services sector and building sector.

The Agriculture, Livestock, Forestry and Fisheries Sector is the highest in Gunung Kidul Regency, Mining and quarrying sector, management industry sector, and building are dominated by Bantul district. while the Electricity, Gas and Water, Industry, Hotels and Restaurants, as well as Finance, Leasing & Company Services industries are the highest in Sleman Regency. Finally, the highest service sector is in Kulon Progo Regency, which is slightly different from Sleman Regency.

Table 3: Location Quotient (LQ) Index of Districts in Yogyakarta D.I 2006-2008

No	Lapangan Usaha	LQ			
		Bantul	Kulon Progo	Gunung Kidul	Sleman
1	Agriculture, Animal Husbandry, Forestry and Fisheries	1.27	1.38	2.07	0.83
2	Mining and excavation	4.91	1.42	2.67	0.61
3	Processing industry	1.22	1.08	0.79	1.04
4	Electricity, Gas and Clean Water	0.92	0.64	0.57	0.97
5	Building	1.23	0.49	0.83	1.17
6	Trade, Hotels and Restaurants	0.91	0.78	0.69	0.99
7	Transportation and Communication	0.65	0.97	0.68	0.54
8	Finance, Rentals & Services Prsh	0.62	0.63	0.48	1.08
9	Services	0.76	0.99	0.78	0.97

c. District economic growth in D.I Yogyakarta

The economic growth rate of the Province of D.I Yogyakarta from 2006 to 2008 was quite good even though its GDP growth was small but continued to increase during 2007 to 2008. The growth rate of its population was more than 4%, only Gunung Kidul District was almost 4%.

In 2008 the economic growth of each district experienced an increase of around 1% - 2%, all of

which occurred in almost every city and district in the D.I Yogyakarta. The economic growth of Bantul Regency is far greater than other districts in the Province of D.I Yogyakarta, with increases reaching more than 12% so that growth in 2008 reached 17.06% from only 4.52% in 2007. The increase in the rate of economic growth in Bantul Regency was caused by the increase in growth in the industrial sector of overtaking reaching more than 18%

Table 4. Economic growth rates of the Province of D.I Yogyakarta.

NO	TAHUN	LAJU PERTUMBUHAN EKONOMI (%)				D.I Yogyakarta
		Bantul	Kulon Progo	Gunung Kidul	Sleman	
1	2006-2007	4.52	4.12	3.91	4.61	4.31
2	2007-2008	17.06	6.06	4.86	6.91	5.13
	TOTAL	21.58	10.18	8.77	11.52	9.43
	RATA-RATA	10.79	5.09	4.38	5.76	4.72

d. Regional development based on economic growth in districts in D.I Yogyakarta

Based on the results of the Klassen Typology analysis with the regional approach, the results show that the districts / cities in quadrant I are Sleman Regency. Districts included in this quadrant I category are generally developed regions both in terms of development and speed of growth. Sleman Regency is a developed area because there is an Adisucipto airport so that the

economic development centered in Yogyakarta is more developed towards Sleman Regency. It aims to support the movement from the airport to the city center, besides that Sleman Regency is located between the cities of Yogyakarta and the city of Solo which has a very high level of interaction so that it can facilitate connections between Yogyakarta and Solo cities. Other districts, Gunung

Kidul Regency, Kulon Progo, and Bantul are in quadrant III. Districts in this category are districts that have the potential for rapid growth but per

capita income is still below the average per capita income of D.I. Yogyakarta Province.

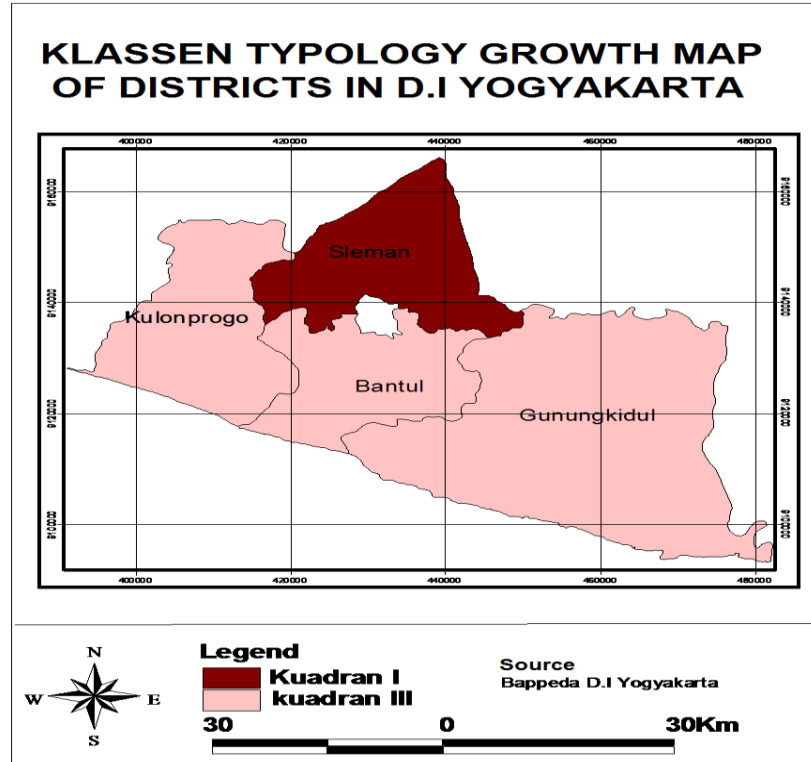


Figure 1. Growth Map of the Region of D.I Yogyakarta according to Klassen's typology

e. Road Density in districts in D.I Yogyakarta

Based on the Road density map in the regencies and cities in D.I Yogyakarta, it is divided into 3 groups, which are meeting, moderate, and less meeting. Sleman Regency and Bantul Regency are areas that are in a tight group of road networks. This is because the two districts are directly adjacent to the city of Yogyakarta which is the Capital of the Province of

D.I Yogyakarta. In both districts it is almost the same as the satellite city where several centers of economic activities such as airports located in sleman district and coastal and sea tourism are located in Bantul district So that to support these economic activities in the two districts, many roads were built.

In Kulon Progo Regency it is in a group with moderate road density because this area has a mining and

quarrying sector base and includes quite a number of several management industries. In addition, this district is the gateway to the city of Yogyakarta if it comes from the western region such as Jakarta.

Gunung Kidul Regency is a region with a low road density due to a difficult topography to build a road because the topography is in the form of hills so that the length of the road is less comparable to the land area.

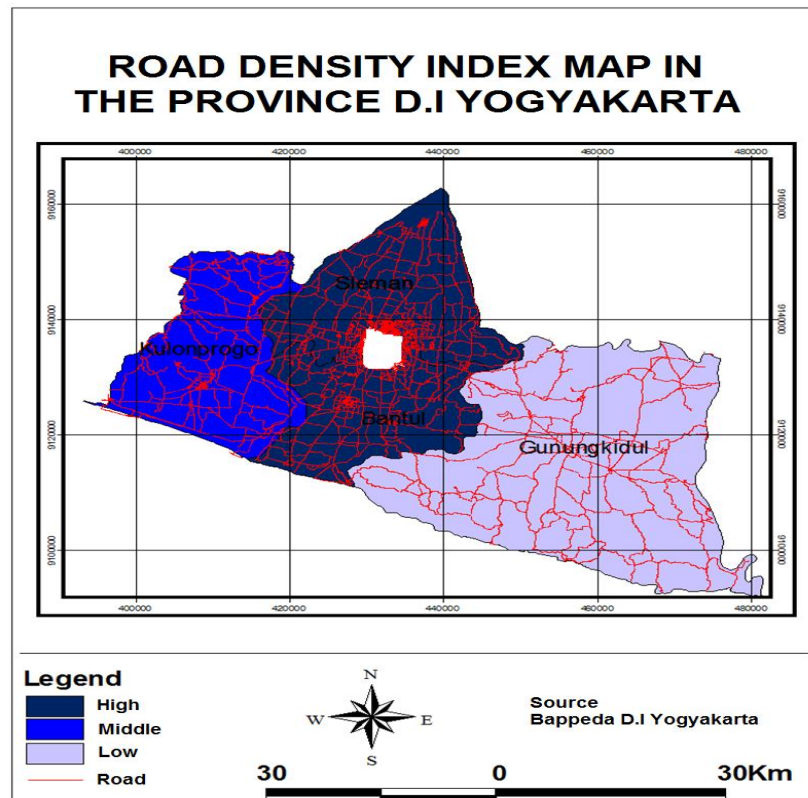


Figure 2. Road Density Index Map based on LQ Analysis

Table 5. Road density index

Regency	road length (Km) (Yij)	district area (Km ²) (Yj)	LQ road density	Remarks
bantul	1,795	506.85	1.983619595	Tinggi
kulon progo	639	586.27	1.787615771	Sedang
gunung kidul	462	1485.06	0.353409576	Kurang
Sleman	1,810	574.82	1.999126529	Tinggi
Total Length of Road in Province of D.I Yogyakarta				
	(Yi) 18,765	(Y) 3,186		

Source : Bappeda dan BPS D.I Yogyakarta.tahun 2008

With Category High (LQ >1,5), Middle (0,5<LQ<1,5), and Low (LQ<0,5)

f. Area of Land Built in Regencies in D.I Yogyakarta

Based on the map, the land built in the regencies in D.I Yogyakarta is divided into 3 groups, namely high land built, Middle land built, and low land built. Sleman Regency is the only area that is included in the regional group that was high land built because not only Sleman Regency is directly adjacent to the city of Yogyakarta, but also this Regency is the place where Adisucipto Airport is located. It makes this region a strategic place to develop into a central city support center. Sleman Regency There are not only airports but also Yogya-Solo roads. Yogya-Solo road connect Yogyakarta city and Surakarta city so Yogya-Solo road is one of the busiest roads in Central Java and D.I Yogyakarta.

Bantul Regency and Kulonprogo Regency are included in the group, which is a Middle land built. Bantul Regency has Parangtritis Beaches and Parangkumo Sand Dunes which become one of the icons of tourism destinations in the Province of D.I

Yogyakarta so that many areas in Bantul Regency especially in around the beach of Parangtritis Beaches and Parangkusumo Sand Dunes which are built by tourism supporting facilities.

In contrast to Bantul Regency, Kulon Progo Regency is an area that will be developed by New Yogyakarta Internatiol Airport, a replacement airport for Adi Sucipto in Sleman Regency so that a lot of infrastructure and facilities began to be built in Kulonprogo Regency. In addition, quite a number of universities in the city of Yogyakarta built a new campus in Kulonprogo district, such as Universitas Negeri Yogyakarta.

Whereas the low land built is Gunung Kidul Regency. This is because Gunung Kidul Regency is the leading sector in the agricultural sector besides that Gunung Kidul has a hilly topography that is difficult to build a road and the geomorphology of Gunung Kidul is a karst which results in fewer water supplies in Gunung Kidul Regency compared to other districts.

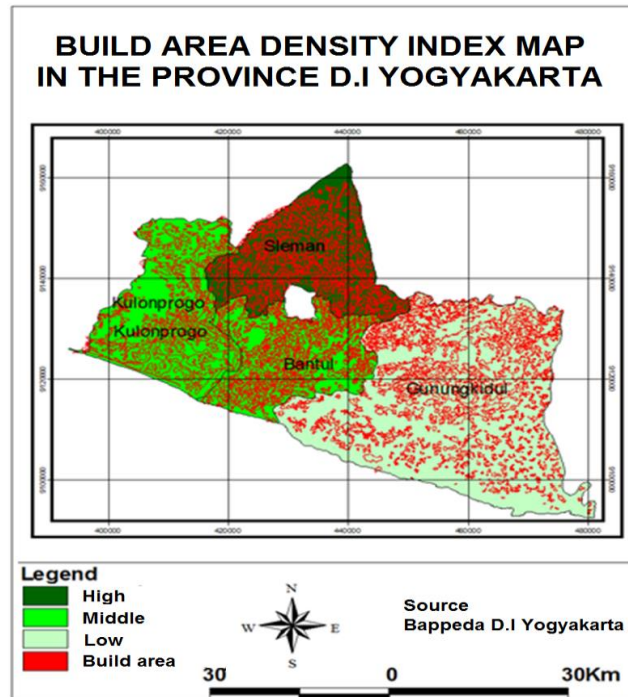


Figure 3. Road Density Index Map based on LQ Analysis

Table 6. Built land area index

Regency	Building Area (Km2) (Yij)	district area (Km2) (Yj)	LQ of land built	Remarks
Bantul	159.74	506.85	1.508343923	Sedang
Kulon Progo	61.03	586.27	0.729571346	Kurang
Gunung Kidul	137.54	1485.06	0.475430602	Sedang
Sleman	109.8	574.82	1.215673187	Tinggi
Total Area of Land Built in Province of D.I Yogyakarta	(Yi) 493.81	(Y) 3,186		

Source : Bappeda dan BPS D.I Yogyakarta.tahun 2008
 With Category High (LQ >1,5), Middle (0,5<LQ<1,5), and Low (LQ<0,5)

g. Inequality in Development in D.I Yogyakarta

Based on the results of LQ analysis, economic growth, classification typology, Road Density LQ, and land LQ built above it can be concluded that In D.I Yogyakarta Province, Sleman Regency has a high level of Development, Bantul and Kulon Progo Regency have a middle

level of Development, and Gunung Kidul Regency has a low level of Development.

Sleman Regency has a high level of Development, this is seen from sectoral LQ whose superiority is in the Manufacturing Industry sector, the Financial sector, Corporate Leasing & Services and the building sector. With the level of built-in LQ

and Road Density LQ in the Moderate condition so that in the cluster typology this district is also a developed and fast-growing region.

Bantul Regency has a middle level of Development, with its superior sector in the form of Mining and quarrying sector, Agriculture, Livestock, Forestry and Fisheries, and the Processing Industry sector with the most superior sectors. With the land LQ level built in medium conditions and LQ Road density is in a high condition, as well as in the typology of classes this district is also a fast developing region.

Kulon Progo Regency also has a middle level of Development, with the superior sector being the same as Bantul regency in the form of Mining

and quarrying sector, Agriculture, Livestock, Forestry and Fisheries, and Processing Industry sector with the most superior sector. With LQ the road density and LQ of land is medium conditions, with the typology of classes this district is also a fast developing region.

Gunung Kidul Regency has a low level of Development, with its superior sector in the primary sector, namely the leading sector in the Mining and quarrying sector and Agriculture, Livestock, Forestry and Fisheries. The most superior sector is the mining and quarrying sector. Besides that, Road density LQ and Built-in land LQ are in the low category and even though the Klassen typology is a fast developing region.

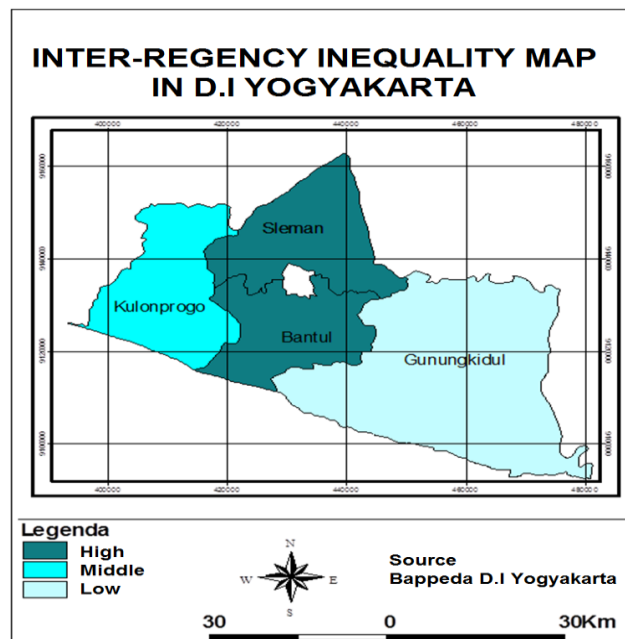


Figure 3. Inter-Regency Inequality Map in D.I Yogyakarta

D. CONCLUSTION

In Province D.I Yogyakarta there is a high gap between one region and another. This is indicated by the value of the williamson index whose value is above 0.7. So that the GDP per capita in the Province of D.I Yogyakarta is less evenly distributed. But the inequality that occurred during 2006-2008 experienced a decline, although it was not significant, but for three years, there was an increase in equality.

The causes of the inequality of development in D.I Yogyakarta are location and topography. Sleman Regency has a high level of Development because it is close to the city of Yogyakarta and is located between the City of Surakarta and the City of Yogyakarta which has a very strong level of interaction. Bantul and Kulon Progo Regency have a middle level of Development because Bantul and Kulon Progo districts, especially the southern part, has a dominate lowland topography, beside that Bantul Regency is directly adjacent to the city of Yogyakarta, and Gunung Kidul Regency has a low level of Development because the topographic and morfology form of Kulon Progo Regency is in the form of hills and

karst, so it is difficult to build infrastructure.

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