Inclusive Growth in Bengkulu Province: Multidimensional Approach

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Abstract—The development of the concept of inclusive growth in the past decade has become important in research studies. Increased economic growth is expected to provide benefits for reducing poverty, reduce income inequality, increase employment opportunities and improve environmental sustainability. The purpose of this study was to analyze inclusive growth (IG) in Bengkulu province. The technique of collecting data uses library research. Poverty-Equivalent Growth Rate (PEGR) was developed in the measurement of inclusive growth. The results of the study show that the period 2001-2016, in general, the economic growth of Bengkulu province was not inclusive. The results showed the coefficient of inclusive growth in poverty (IG_p) of 0.043, inequality (IG_ine) of 0.043, labor (IG_em) of 0.021, and environmental sustainability (IG_en) of 0.012 lower than the coefficient of economic growth (GDP) of 0.055. The development strategy through government policy is focused on accelerating pro-poor economic growth, providing employment, equitable income and reducing environmental damage for sustainable development.

Keywords—Inclusive Growth, Poverty-Equivalent Growth Rate (PEGR), Economic

I. INTRODUCTION

Economic growth and economic development, attract the attention of global researchers in carrying out complex interpretations in the implementation of policies on the development agenda in some underdeveloped countries and developing countries [1, 2]. The history of development in several developing countries in the last two decades shows that high economic growth still holds various problems such as poverty, inequality of income distribution and unemployment [3, 4]. This raises ideas for each country and world organization in overcoming these various problems.

Several concepts have been developed in measuring the benefits of economic growth for the welfare of society. Inclusive Growth concepts are present in the last decade along with the concept of Pro-Poor Growth. The concept of Pro-Poor Growth measures the benefits of economic growth for poverty reduction [5, 6] and measure the benefits of economic growth for decreasing the gap in income distribution [7, 8]. Inclusive growth provides a broader concept. The community is not only a beneficiary of growth but also participates and contributes to the growth process [9, 10, 11].

Until now, there has been no universal agreement on approaches, definitions, and indicators for inclusive growth [12, 13]. Some conceptual frameworks of inclusive growth have been proposed by researchers and various international organizations. Inclusive growth focuses on increasing labor productivity [14]. Inclusive growth as GDP growth can reduce poverty [15]. While several other researchers from the Asian Development Bank (ADB) focus on emphasizing the aspect of reducing inequalities between community groups seen from the economic aspects and non-economic aspects through community participation and contribution in the process of growth [16, 17, 18].

Literature studies show that in general there are three approaches used in the inclusive growth concept. 1) Studies that emphasize the inclusive growth approach in reducing poverty [19, 20]. 2) Studies that emphasize the inclusive growth approach in reducing inequality in income distribution [21, 22]. 3) Studies that emphasize an inclusive growth approach in increasing labor absorption and labor productivity [23, 24, 25]. The Inclusive Growth policy strategy in the context of sustainable development is also focused on improving environmental sustainability [26]. Environmental issues are very important because an increase in economic activity has an impact on environmental degradation [27]. However, inclusive growth studies using an environmental approach are relatively difficult to find. The innovation in this research is to fill the gap with an inclusive study of economic growth using the environmental approach.

This study analyzes economic growth using the concept of inclusive growth. The concept of inclusive growth along with efforts to strengthen the progressive civil society among South East Asian countries. Based on the theory and previous findings that high economic growth does not always create community welfare and still has many economic problems [3, 4], this study analyzes inclusive growth in Bengkulu province. Bengkulu is one of the provinces on the island of Sumatra with high economic growth. The average economic growth of the province of Bengkulu in the period of 2001-2016 reached 5.69% per year [BPS]. This value is relatively higher than the
economic growth of several other provinces in Sumatra and Indonesia. High economic growth is expected to benefit the welfare of the community. But in fact, the high economic growth in Bengkulu province still raises various problems such as the high percentage of poverty, increasing trends in inequality in income distribution, high unemployment and environmental damage due to economic activities. Based on this, inclusive growth studies use several important approaches to be carried out. This study aims to analyze the inclusive growth of Bengkulu province in the period 2001-2016 using the approach of poverty, inequality, labor, and environmental sustainability.

II. METHODOLOGY

The approach used in this study is descriptive analysis. The technique of collecting data uses library research. The data used are secondary data sourced from books, literature, journals, reports and official information from the Central Bureau of Statistics of Bengkulu Province. Poverty-Equivalent Growth Rate (PEGR) from Klasen [17], was developed in measuring the inclusive growth coefficient of Bengkulu Province. Using the approach of poverty, inequality, labor, and environmental sustainability, inclusive growth occurs if the coefficient of inclusive growth (IG) is higher than the coefficient of economic growth ($\hat{G}_g$).

A. Inclusive Growth with a Poverty Approach (IG\(_p\))

Inclusive growth is defined as economic growth that can reduce poverty or have an impact on improving the welfare of poor people in Bengkulu province. Using the coefficient $IG_p = (E_{pg}/E_p)$ $\hat{G}_g$ growth is declared inclusive if value $IG_p > \hat{G}_g$. Note:

- $IG_p$: coefficient of inclusive growth in reducing poverty
- $E_{pg}$: poverty elasticity of average income
- $E_p$: poverty elasticity towards economic growth
- $\hat{G}_g$: economic growth

B. Inclusive Growth with the Inequality Approach (IG\(_i\))

Inclusive growth is defined as economic growth which can reduce the inequality of income distribution in Bengkulu province. Using coefficients $IG_i = (E_{in,g}/E_{in})$ $\hat{G}_g$ growth is declared inclusive if value $IG_i > \hat{G}_g$. Note:

- $IG_i$: coefficient of inclusive growth in reducing inequality
- $E_{in}$: elasticity of inequality to average income
- $E_{in,g}$: elasticity of inequality towards economic growth
- $\hat{G}_g$: economic growth

C. Inclusive Growth with a Workforce Approach (IG\(_w\))

Inclusive growth is defined as economic growth that can increase employment in the Bengkulu province. Using coefficients $IG_w = (E_{em,g}/E_{em})$ $\hat{G}_g$ growth is declared inclusive if value $IG_w > \hat{G}_g$. Note:

- $IG_w$: coefficient of inclusive growth in absorbing workers
- $E_{em}$: labor absorption elasticity
- $E_{em,g}$: elasticity of employment to economic growth
- $\hat{G}_g$: economic growth

D. Inclusive Growth with the Environmental Sustainability Approach (IG\(_m\))

Inclusive growth is defined as economic growth that can improve environmental sustainability in Bengkulu province. Using coefficients $IG_m = (E_{em,g}/E_{en})$ $\hat{G}_g$ growth is declared inclusive if value $IG_m > \hat{G}_g$. Note:

- $IG_m$: coefficient of inclusive growth in improving environmental sustainability
- $E_{en}$: elasticity of environmental sustainability towards economic growth
- $\hat{G}_g$: economic growth

III. RESULT AND DISCUSSION

This study analyzed the inclusive growth of Bengkulu province by using a multidimensional approach, namely the approach of poverty, inequality, labor, and environmental sustainability.

A. Inclusive Growth with the Poverty Approach (IG\(_p\))

Poverty in Bengkulu province is still a serious problem. During the period of 2001-2016, the average percentage of poor people reached 19.73% per year. This makes Bengkulu province the province with the second highest percentage of poor people after Aceh province. This value is also higher than the average percentage of poor people in Sumatra (14.28%) and Indonesia (14.29%). The highest poverty occurred in 2002. The number of poor people reached 372,400 people or reached 22.70%.

During the period of 2001-2016, the coefficient of inclusive growth (IG\(_p\)) has a positive value. The inclusiveness coefficient is positive but smaller than economic growth (IG\(_p\)) means that the reduction in poverty continues to occur along with increasing economic growth. However, these results have not been distributed evenly and the benefits of economic growth remain accepted by people who are not classified as poor.

Fig. 1 shows that the economic growth of Bengkulu province, in general, is not inclusive of poverty reduction. The coefficient of inclusive growth (IG\(_p\)) graph tends to be below the graph of the coefficient of economic growth $G_g$. The average inclusive growth coefficient (IG\(_p\)) is 0.043 lower than the average coefficient of economic growth at 0.055. Inclusive growth occurs if the coefficient of inclusive growth (IG) is higher than the coefficient of economic growth ($\hat{G}_g$) [17]. Inclusive growth occurred in 2003. The inclusive growth coefficient (IG\(_p\)) of 0.135 is greater than the coefficient of economic growth $G$ of 0.052. In that year, Bengkulu province had economic growth of 5.37%, relatively higher than the economic growth of other provinces on the island of Sumatra. In that year there was also a decline in poverty. The number of poor people is 344,200 people, lower than the previous year which was 372,400 people. This condition represents
the highest decline in the period 2001-2016. This phenomenon is inclusive growth as GDP growth which can reduce poverty [15].

B. Inclusive Growth with the Poverty Approach (IGp)

Along with the achievement of economic growth, the Gini ratio as an indicator that shows the level of inequality in the income distribution of Bengkulu province shows a tendency to increase. During the observation period of 2001-2016, the average Gini ratio of Bengkulu province was 0.33. This makes Bengkulu province the region with the second highest Gini ratio on the island of Sumatra after the province of Lampung (0.35). This value is also higher than the average Gini ratio of the island of Sumatra but lower than Indonesia's inequality.

Figure 2 shows the results of measurement of inclusive growth using the approach of inequality of income distribution for the period 2001-2016 in general or the average shows that the economic growth of Bengkulu province is not inclusive of equal distribution of income. This is indicated by the average value of the inclusive growth coefficient (IGp) of 0.043 lower than the average coefficient of economic growth (Gg) of 0.055. Inclusive growth (IGp) in Bengkulu province occurred in 2003. In that year, economic growth reached 5.37%. Per capita income has increased very significantly, reaching 14.43% from the previous year. This growth is the highest per capita income growth during the observation period. While the average per capita income growth in 2001-2016 only reached 4.42% per year.

Along with the increase in economic growth and an increase in per capita income in 2003, the Gini ratio was even higher than the previous year. But this phenomenon occurs in almost all provinces on the island of Sumatra. There is one area that has experienced a decline in inequality in income distribution, namely Riau province. This condition occurs in aggregate in the Sumatra region, so the value of inequality in the income distribution of the island of Sumatra also tends to increase.

In addition to Bengkulu province, there are three other regions on the island of Sumatra that experienced inclusive growth in 2003, namely the provinces of North Sumatra, Riau and South Sumatra. The three regions also have an inclusive growth coefficient (IGp) higher than the coefficient of economic growth (Gg). The inclusiveness of economic growth in the four provinces has made the island of Sumatra also experience inclusive growth. Inclusive growth coefficient (IGa) of 0.110 higher than the coefficient of economic growth (Gg) of 0.109. This phenomenon is inclusive of growth, economic growth has an impact on reducing inequality [16, 18]. While Indonesia's economic growth has not been inclusive of decreasing inequality in income distribution. The inclusive growth coefficient (IGa) value of 0.049 is lower than the coefficient of economic growth (Gg) of 0.064.

C. Inclusive Growth with a Workforce Approach (IGem)

During the period of 2001-2016, the trend of the workforce and the number of people working in Bengkulu province tended to increase. The average labor force growth reaches 2.21% per year. Whereas in terms of quantity, the average workforce numbered 844,337 people per year or equal to 3.66% of the total workforce average on the island of Sumatra. Furthermore, the growth of working people in Bengkulu province reached 2.20% per year. The average number of people working is 800,725 per year or 3.76% of the total number of people working on the island of Sumatra. The negative growth in the number of people working in Bengkulu province occurred in 2004 at -5.78% and in 2013 amounted to -2.55%. At the same time, the economy of Bengkulu province is in good condition with a growth of 5.38% and 6.07% respectively.

Unemployment in Bengkulu province during the period of 2001-2016 experienced fluctuations. But in general, the trend of unemployment tends to decline. The average unemployment is 43,611 people per year or 2.45% of the total average number of people working on the island of Sumatra. The highest growth during the observation period occurred in 2005 and 2015. Each unemployment growth reached 47.71% and 49.36%. In the same year, most areas on the island of Sumatra also experienced an increase in unemployment. While the highest decline occurred in 2006 reaching -31.34%. Except for the provinces of Lampung, the Bangka Belitung Islands, and the Riau Islands, the year also experienced a decline in the unemployment rate.

Figure 3 shows the coefficient of economic growth (Gg) and the inclusive growth coefficient (IGem) of Bengkulu province, Sumatra and Indonesia in 2001-2016. During the observation period, the coefficient of inclusive
growth ($IG_{em}$) in Bengkulu province was lower than the coefficient of economic growth ($G_3$). So that the average coefficient of inclusive growth is lower than the coefficient of economic growth (0.021<0.055). This condition shows that using the labor approach, the economic growth of Bengkulu province is not inclusive.

Inclusive growth ($IG_{em}$) Bengkulu province occurred in 2002. Inclusive growth coefficient value ($IG_{em}$) of 0.095 higher than the coefficient of economic growth ($G_3$) of 0.046. In addition to Bengkulu province, other regions that also experienced inclusive growth were Riau, Jambi and South Sumatra provinces. But in the aggregate on the island of Sumatra, economic growth is not inclusive. The growth coefficient of inclusive growth ($IG_{em}$) is 0.028 smaller than the coefficient of economic growth ($G_3$) of 0.059.

The economy of Bengkulu province in 2002 experienced positive growth reaching 4.73%. The achievement of economic growth is thought to have an impact on increasing employment. In that year, there was an increase in the number of people employed from 684,430 people in the previous year to 749,490 people or an increase in the number of people working. Each experienced growth of 5.66% and 4.09%. Until 2015, employment in the agricultural business sector still dominated reaching 54.21%. The contribution of the agricultural business field to the Bengkulu province's GRDP is 30.66%. This phenomenon is inclusive growth, economic growth has an impact on increasing employment [14].

Most of the inclusive growth coefficients of Bengkulu province in the period 2001-2016 are positive but smaller than the coefficient of economic growth. This shows that economic growth is able to increase employment but the increase in economic growth occurs faster than the increase in employment. Besides having a positive inclusive growth coefficient, Bengkulu province also experienced a coefficient of inclusive growth with negative values in 2004, 2007 and 2013. This condition is contradictory to the economy of Bengkulu province, during the same period economic growth experienced positive growth. While the absorption of labor has decreased. This shows that the economic growth that occurred during that period has not been able to create new jobs.

D. Inclusive Growth with the Environmental Sustainability Approach ($IG_{em}$)

The next study of the inclusive growth of Bengkulu province is to use an environmental sustainability approach. Forest and water area and population growth of Bengkulu province as one indicator in the formation of an inclusive growth coefficient ($IG_{em}$). In 2016 the total forest area in Bengkulu province amounted to 924,630.77 hectares, which consisted of natural reserves of 462,964.33 hectares, protected forests 250,749.96 hectares, limited production forests 173,281.03 hectares, permanent production forests 25,871.70 hectares, and special function forests or conservation of 11,762.75 hectares. Production of forest products in this region is round wood and sawn timber, 7,164.45 m$^3$ and 6,140.14 m$^3$ respectively. Log production comes from Rejang Lebong and Bengkulu Utara districts while sawn timber comes from Rejang Lebong and Bengkulu Utara districts, and the city of Bengkulu.

The use of natural resources including forest products in an effort to increase economic growth and population growth is thought to have an impact on environmental sustainability. During the period 2001-2016, the average population growth of Bengkulu Province was 1.27% per year. This average is lower than the average population growth of the island of Sumatra of 1.64% per year and below the average population growth of Indonesia of 3.43% per year.

Inclusive growth needs to be accompanied by environmentally friendly and sustainable growth. Environmentally friendly and sustainable growth is defined as growth that takes into account the balance of the environment and ecosystem in the long run. This growth is not only pursuing high growth targets, but more focused on efforts to reduce environmental damage. Figure 4 shows a comparison of the coefficient of economic growth in Bengkulu province and the coefficient of inclusive growth using the environmental sustainability approach of Bengkulu province, Sumatra and Indonesia. During the
period of 2001-2016, the economic growth of Bengkulu province, Sumatra and Indonesia was not inclusive of environmental sustainability.

![Graph showing Inclusive Growth with the Environmental Sustainability Approach in Bengkulu Province, Sumatra and Indonesia Year 2001-2016](image)  
Fig. 4. Inclusive Growth with the Environmental Sustainability Approach in Bengkulu Province, Sumatra and Indonesia Year 2001-2016

Bengkulu Province has an average coefficient of inclusive growth ($\bar{IG}_\text{m} = 0.012$ lower than the coefficient of economic growth ($\bar{G}_\text{p}$) of 0.055. The graph or coefficient value of the inclusive growth of Bengkulu province is relatively stable and is in line with the coefficient of inclusive growth of Sumatra and Indonesia. Most of the coefficient values of inclusive growth are positive. But in 2003, the coefficient of inclusive growth was negative (-0.083). In addition to Bengkulu province, there are three other regions that also have a negative coefficient of inclusive growth, namely the provinces of North Sumatra, Riau and South Sumatra. This condition causes the coefficient of inclusive growth of Sumatra island to be negative (-0.001) and smaller than the coefficient of economic growth.

The economic growth of Bengkulu province in 2003 reached 5.37%. In that year, the population growth of Bengkulu province, North Sumatra and South Sumatra provinces experienced negative growth. Furthermore, the area of forest and waters in Bengkulu province is 921,000 hectares, relatively the same as the previous year. Bengkulu Province is one of the regions on the island of Sumatra which also has environmental problems. The main environmental problem in Bengkulu province is forest destruction, including protected forests, Kerinci Seblat National Park, mangrove forests and coastal forests. Forest damage is caused by, among others, illegal logging, forest conversion into various businesses such as plantations, ponds, settlements, industrial estates, tourism, and others.

The solution to overcoming this problem includes community-based reforestation. This means that reforestation or improvement of forest ecosystems includes the surrounding community, which in turn can improve community welfare. In addition, increasing forest control and law enforcement is very important for the success of improving forest ecosystems. As a result of forest destruction in Bengkulu province, there were floods in the rainy season and lack of water in the dry season, as well as reduced biodiversity.

IV. CONCLUSION

Inclusive growth occurs if the coefficient of Inclusive Growth (IG) is higher than the coefficient of economic growth ($\bar{G}_\text{p}$). During the period of 2001-2016, the economic growth of Bengkulu province was not inclusive. The results showed that the average coefficient of inclusive growth towards poverty ($\bar{IG}_\text{p}$) of 0.043, inequality ($\bar{IG}_\text{m}$) of 0.043, labor ($\bar{IG}_\text{l}$) of 0.021, and environmental sustainability ($\bar{IG}_\text{e}$) of 0.012 lower than the coefficient of economic growth ($\bar{G}_\text{p}$) of 0.055. The coefficient of inclusive growth, in general, is positive but lower than the coefficient of economic growth. This shows that economic growth has reduced poverty, reduced inequality, increased employment, and increased environmental sustainability. However, the increase in economic growth occurs faster than the reduction in poverty, decreasing inequality, increasing employment and increasing environmental sustainability. The development strategy through government policy is focused on accelerating economic growth that is pro-poor, providing employment, equitable income and reducing environmental damage for sustainable development.

REFERENCES


