

## GROWTH WITH OR WITHOUT DEVELOPMENT: LESSONS FROM BANGKA BELITUNG ISLAND PROVINCE, INDONESIA, 2004-2013

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### ABSTRACT

*Bangka Belitung island province is the largest tin producer in the world after China. In Indonesia, The central government has made new regulations on mining during the reformation and regional autonomy era. The abundance of natural resources should have brought positive impacts on local development and indigeneous community welfare in this province. The development of the mining sector in many countries has led to contending models of development: the traditional enclave and new sustainable development. The major aim of this paper to inquire to that extent Bangka Belitung island province has shown the phenomenon of growth with or without development. It will employ various quantitative methods and seven districts data of economic growth, poverty, unemployment, economic exploitation index, and human development index over the period of 2004-2013. Our analysis finds that most districts in Bangka Belitung island province experienced growth without development. The findings is reflected by high economic exploitation indices. It suggests that the fruit of natural resources has been largely enjoyed by investors and central government rather than the local people and government. Our analysis proves that the central government has not been able to make the mining sector a driving force for social welfare and regional development. The policy implication of this research found that the policy changes made by the central government in mining governance did not give a positive impact on social welfare and development in the province. Finally, the findings of this research resulted in a fundamental policy recommendation for the government to make policy changes in the field of general mining in Indonesia, especially in the field of tin mining in order to have an impact on social welfare and the economic development in the region.*

Keywords: Growth with, without development, economic exploitation index, economic growth, employment, poverty, human development index, typology

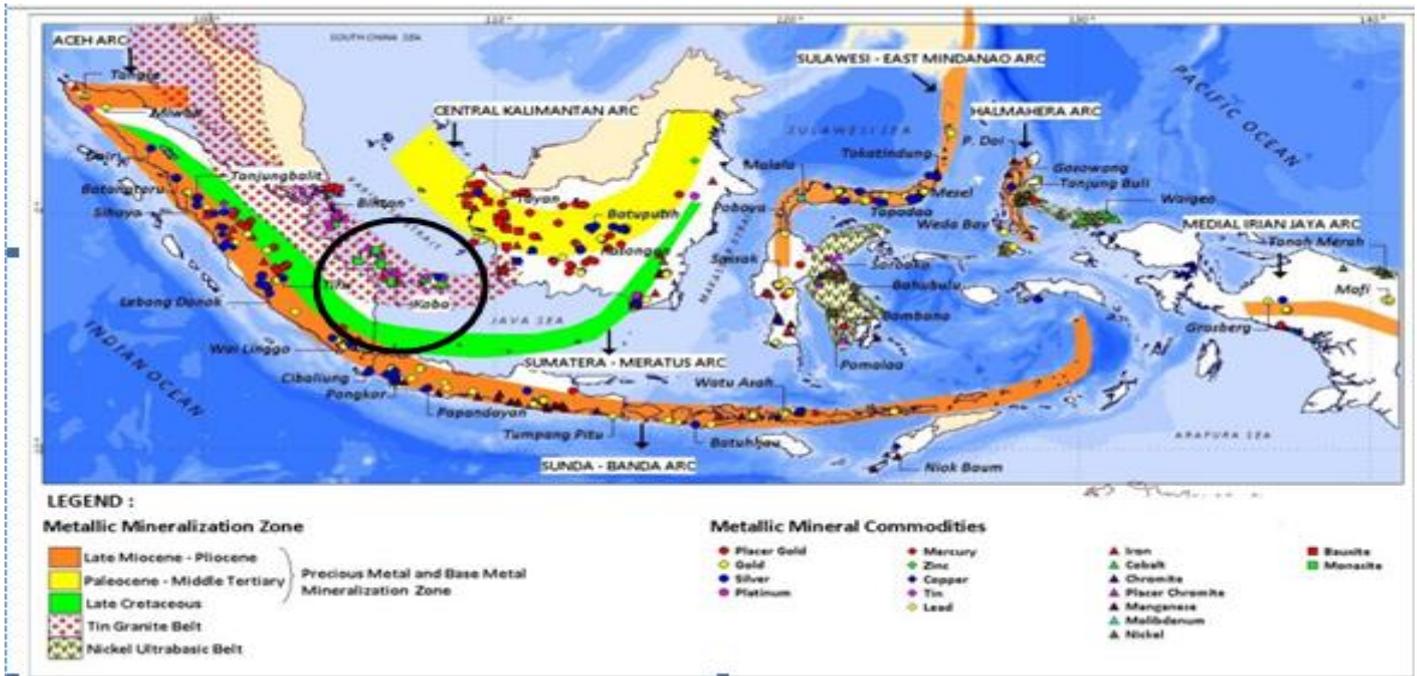
### 1. INTRODUCTION

The natural resource management policy of the mining sector has not shown proportional alignments in the economic, social, political, environmental, technological and institutional aspects (Humpreys, et al., 2007: 1; *Worl Bank*, 2003, 2008 , 2010). The spirit of legislation is generally taking side on the economic and exploitative growth by relatively neglecting social and institutional aspects. Instead, the social and institutional aspects are one of the main strengths that should be given extra attention for the creation of sustainable mining sector management (Humpreys, et al., 2007: 2; McMahon, 2010; Sumardjono, *et al.*, 2011: 42; ADB, 2008; WB, 2003, 2010, 2012).

Some countries in the American, African and Asian regions such as Mongolia, Argentina, Tanzania, Madagascar, Chile, Kyrgyzstan, Afghanistan, Sweden, Peru, Brazil, China, Namibia, Ghana, Africa and Indonesia have made the mining sector as a major source of economic growth, and even as a sustainable development engine (WB, 2005, 2008, 2015; Weber-Fahr, *et al.*, 2002: 441; Backblom). Those countries do not desire mining development to take place only on the enclave model. The mining sector plays a role in enhancing the economic opportunity relationship with other sectors, either directly or indirectly (WB, 2013).

Bangka Belitung Islands Province is a region in Indonesia which has the largest tin natural resources after China. The contribution of tin mining to Gross Regional Domestic Product (GRDP) of Bangka Belitung Islands Province is ranked first (BPS, 2014). In Indonesia, this province has been the largest producer of tin too.

**Figure 1: Map of tin mining authority in bangka belitung islands province**



Source: Ministry of Energy and Mineral Resource (2012)

The concern on this research is based on the following key reasons. First this research is interesting is because the world is currently facing the issue of global warming and climate change. Second, World Bank (2010) encouraged the mining industry to adopt the principles and standards of sustainable development as the mining industry should be a catalyst for regional economic growth in the long term (McMahon, 2010: 10). Third, Bangka Belitung Islands Province is an area that has abundant natural resources, the largest tin producing region in the world after China. Fourth, there is a shift in the tin mining management in the era of decentralization as part of the authority is handed over by the central government to the local government. The regional government of Bangka Belitung Islands Province also has the authority to manage the natural resources of tin mining for the benefit of regional development and as the effort to improve the people's welfare.

This research will focus on the analysis of how natural resource affects social welfare and regional development over the period of 2004-2013. This is to prove whether Bangka Belitung Islands Province will also experience symptoms of growth without development as occurred by East Kalimantan Province (Kuncoro & Idris, 2010).

## 2. LITERATURE REVIEW

Solow's neoclassical theory and the concept of production function are applied to explain the relationship between mining and economic development. According to the traditional paradigm, there is a positive relationship between mining and economic growth. The amount of output that a country can generate depends on the amount of labor, capital, energy, materials and other inputs.

The second paradigm is known as the new paradigm. According to this paradigm, mining has a negative relationship to economic development, although it is not a causal relationship. This paradigm was pioneered by Hirschman (1958), Seers (1964), and Baldwin (1966) who stated that mining harms the economy because it has low potential for long-term economic growth. This low growth potential occurs because this primary commodity production has no backward linkage and forward linkage, and it gives very little benefit to the development of manufacturing sector. Minerals mining has been detrimental to the economy in the long run, especially in an effort to encourage alternative economic sector, particularly the manufacturing sector.

The mining sector which is a part of the economic growth machine has two models, the traditional enclave model and the sustainable development model (Hasoi, 2004; Strongman, 2010). The debates of the two models are based on the criticism of corporate activities in some developing countries. The criticism is largely rooted in: first, the mining sector does not contribute to local economic development (World Bank, 2015). Second, the perception of political imbalance between global companies and the weakening of the country politics, where companies do not provide long-term economic benefits to the country as the owner of the resources (McMahon, 2010: 3). Third, the natural resources become the arena of conflict of interest groups that take advantage of the wealth of the country for personal and group purposes and thus ignoring the interests of public welfare (Humpreys, *et al.*, 2007: 54-55).

United Nation Economic Commission for Africa (UNECA, 2005) believes that the result of this enclave mining industry is the concentration of investment and development activities. To claim whether or not a mining industry activity is an enclave can be

observed in the context that the mining industry is more export-oriented in mining raw materials but not integrated with the local economy (Hirschman 1958: 110).

The debate in the form of empirical research of various literatures conducted by experts on the performance of mining sector development for economic and community development has resulted in conflicting findings, among others were the research conducted by Rigg (1997), Kuncoro & Idris (2010), and Eng (2014).

Rigg (1997) found that mining sector development in some regions in Indonesia was an enclave model. Several provinces in Indonesia which are rich in natural resources such as East Kalimantan, Irian Jaya, Riau, South Sumatra, and Aceh have a high GDP but have a high poverty rate as well. There are two reasons for this: first, the wealth coming out from the enclave extractive industry did not contributed to the interests of the local people living in that province. The main benefits of the booming of natural resources wealth are only utilized by industry and elite groups from outside the region, especially from Java. Second, mining revenues have been enjoyed by the central government and distributed to other provinces. Thus, mining areas should be developed in other forms of investment, not only as producing regions.

Kuncoro & Idris (2010) found that East Kalimantan Province is one of the areas in Indonesia with abundant natural resources. However, it turns out that the natural resources wealth of East Kalimantan has not been able to improve the welfare of the people which is reflected in the number of poor families, unemployment and the increasing inequity among regions so it can be concluded that East Kalimantan Province is an example of a region that experiences economic growth without development (Kuncoro & Idris, 2010).

Eng (2014), found that the mining sector in Indonesia tends to produce an enclave development model that has not been able to absorb labor. The mining sector tends to be capital-intensive rather than labor-intensive for technological reasons. The company also recruits skilled migrant workers from other regions with relatively high salary. This led to the creation of an enclave economy for the regional economy. Large companies also have transport infrastructure, electricity, other facilities as well as limiting the linkages to the local economy.

Natural resources is one of the factors that can influence the development performance of a region, especially as a supporter of economic growth, poverty reduction and equal income distribution (Sach, 2007: 200-205; Weber-Fahr, et al., 2002 and Ross, et al., 2011 ). However, there is an empirical debate over the influence of natural resources on economic growth, poverty, and income inequity (Jamli, 2012, Bhattacharyya and Resosudarmo, 2013; Aksana, 2013; Deller, 2014; Balanay, et al., 2014; and Loayza and Rigolini, 2014).

An empirical research conducted by Kuncoro and Idris (2010) and Jamli (2012), found that East Kalimantan Province experienced the symptoms of growth without development which were reflected by the increasing inequality and poverty. In addition, the existence of coal mining indirectly does not affect the economic growth of East Kalimantan.

This research will focus on analyzing to prove whether Bangka Belitung Islands Province will also experience the symptoms of economic growth without development as experienced by East Kalimantan Province (Kuncoro & Idris, 2010). This research employ various quantitative methods and seven districts data of economic growth, poverty, unemployment, economic exploitation index, and human development index over the period of 2004-2013.

### 3. METHODOLOGY

To analyze whether Bangka Belitung Islands Province occurred the symptoms of growth with development or growth without development, several analytical tools were used:

First, a simple arithmetic means are used to explore trend of key social and economic variables. They basically a summing all data divided by the of existing data. Mathematically, they are derived from:

$$X = \frac{\sum_{i=1}^n x^i}{n}$$

The equation is defined as an average calculated from the sum of each data, from up to dividing it to the number of existing data (n) (Kuncoro, 2009: 193). This analysis is conducted by calculating the average economic growth, poverty rate, unemployment rate, human development index, and economic exploitation index in Bangka Belitung Islands Province during the 2004-2012 period.

Second, means difference test analysis. The means difference test analysis is calculated by using the following equation:

$$t = \frac{(\bar{x}_1 - \bar{x}_2) - (\mu_1 - \mu_2)}{\sqrt{\frac{S^2}{n_1} + \frac{S^2}{n_2}}}$$

Where,

$\bar{x}$  = the mean of the distribution of raw score

s = the standard deviation of the distribution  
n = the number of case

Third, quadrant approach analysis. This analysis will provide information on the districts or cities in Bangka Belitung Islands Province including the areas that experience economic growth, poverty levels, unemployment, economic exploitation index, and the human development index. More details can be seen in Table 1.

**Table 1: Regions classification based on economic growth, poverty rate, unemployment, economic exploitation index, and human development index**

The economic growth rate of a districts compared to the average economic growth rate of the districts in Bangka Belitung Island Province	The rate of poverty, unemployment, and economic exploitation index of the district compared to the average rate of poverty, unemployment, economic exploitation index and human development index in all districts	
	High (<1)	Low (>1)
High (>1)	pro-growth, pro-poor, pro-job, pro-exploitation, pro-human	pro-growth, no pro-poor, no pro-job, no pro-exploitation, no pro-human
Low (<1)	no pro-growth, pro-poor, pro-job, pro-exploitation, pro-human	no pro-growth, no pro-poor, no pro-job, no pro-exploitation, no pro-human

Source: Modified from Kuncoro (2012)

Fourth, economic exploitation index analysis. Economic exploitation index is used to measure the level of economic exploitation by the central government or foreign investors/ companies (Kuncoro, 2013: 20). This analysis is used for provinces in Indonesia that are rich in natural resources such as oil, gas and mining materials but have problems related to development issues such as income distribution inequity and social justice (Mubyarto, 2005: 174-175).

This index is estimated by comparing the per capita GRDP with per capita consumption expenditure (Mubyarto, 2005: 174). The economic exploitation index is measured by the following equation (Mubyarto, 2005: 175):

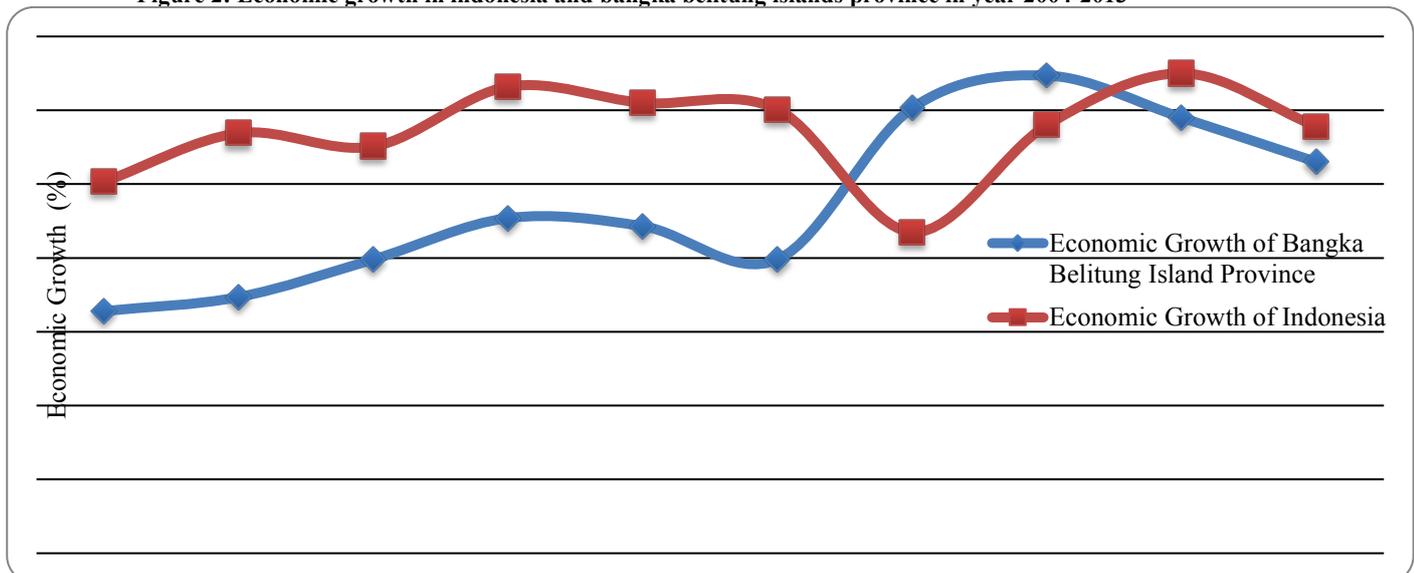
$$\text{Exploitation Index} = 1 - \left( \frac{\text{per capita consumption}}{\text{per capita GRDP}} \times 100\% \right)$$

#### 4. EMPIRICAL FINDINGS

##### Growth with Development versus Growth without Development.

Bangka Belitung Islands Province in the period of 2004-2013 grew lower than national level (see Figure 2). However, the improved economic growth should have a significant impact on poverty rate reduction, unemployment rate reduction, economic exploitation index and human development.

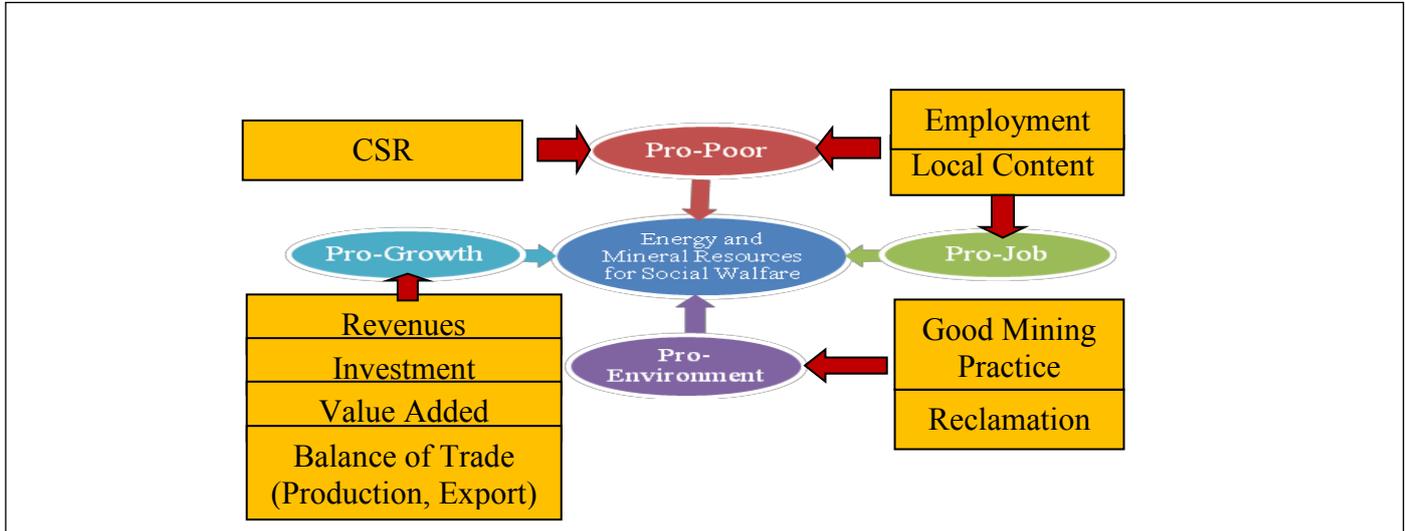
**Figure 2: Economic growth in indonesia and bangka belitung islands province in year 2004-2013**



Source: Processed from the Central Bureau of Statistics (2004-2013)

In the development process, in addition to considering the aspects of growth and equity, the impact of economic activity on social life of the people is also considered (Kuncoro, 2010: 31). This is in line with the outline of Indonesia's development goals in 2009-2012 which is the achievement of people welfare through the economic growth which is oriented on three pillars namely pro-growth, pro-job, and pro-poor (Yudhoyono & Budiono, 2009: 23). Thus, the economic growth of Bangka Belitung Islands Province should be accompanied by the achievement of decreasing poverty rate, unemployment rate, and equal income distribution.

Figure 3: Role of mineral and coal mining in development



Source: Ministry of Energy and Mineral Resource (2012)

Problems of economic growth that occurred in Bangka Belitung Islands Province in Indonesia were experienced by the districts in Bangka Belitung Islands Province. Although the economic growth rate of Bangka Belitung Islands Province in 2004-2013 increases but there are still districts with economic growth rate below the average economic growth of Bangka Belitung Islands Province (see Table 2).

Table 2: Average of economic growth, poverty, unemployment, and economic exploitation index, human development index of the districts in bangka belitung islands province in year 2004-2013

Districts	Before Law No. 11 of 1967 (2004-2008)					After Law No. 4 of 2009 (2009-2013)				
	GR (%)	POV (%)	EMP (%)	EI (%)	HDI	GR (%)	POV (%)	EMP (%)	EI (%)	HDI
Bangka	1.84	9.80	6.52	90.70	70.43	2.75	6.26	4.55	91.47	73.13
Belitung	2.71	10.48	8.36	91.30	71.43	3.09	8.23	2.77	92.17	73.80
West Bangka	1.45	7.35	7.22	95.74	68.22	2.56	4.06	4.26	96.00	70.56
Central Bangka	0.51	9.43	7.17	92.12	68.99	2.43	6.33	4.92	92.39	71.76
South Bangka	1.40	7.08	6.62	91.04	64.40	2.94	4.78	3.64	91.08	67.44
East Belitung	2.57	12.86	7.58	91.87	69.68	3.04	8.19	3.22	92.65	72.48
Pangkalpinang	1.47	6.13	10.71	90.85	74.30	2.92	4.74	7.59	91.58	76.38
<b>Bangka Belitung Average</b>	<b>1.71</b>	<b>9.02</b>	<b>7.74</b>	<b>91.94</b>	<b>69.63</b>	<b>2.81</b>	<b>6.08</b>	<b>4.42</b>	<b>92.48</b>	<b>72.22</b>

Source: Processed from the Central Bureau of Statistics (2004-2013)

Notes: GR= Economic Growth; POV= Poverty; EMP= Employment; EI= Exploitation Index; HDI= Human Development Index

Table 2 shows that at the time the Law No.11 of 1967 on mining (2004-2008) was implemented, there were 3 districts that have grown higher than provincial rates. On the other hand, there were 4 districts with below average economic growth namely West Bangka, Central Bangka, South Bangka, and Pangkalpinang. However, at the time of amendment to the Mining Law (2009-2013), the number of districts with above average economic growth were found in Belitung, South Bangka, East Belitung, and Pangkalpinang districts. Belitung and East Belitung districts remain unchanged as the centers of economic growth. While the districts that have below-average economic growth are the districts of Bangka, West Bangka, and Central Bangka.

In the period of 2004-2008, there were 4 districts with above average poverty rates. Those district were East Belitung, Central Bangka, Belitung, and Bangka. On the contrary, there were 3 districts with below-average poverty rates, namely the districts of

South Bangka, West Bangka, and Pangkalpinang City. While in the period of 2009-2013, the districts of Bangka, Belitung, Central Bangka and East Belitung continued to have poverty levels above that of provincial rates as in the previous periods. In contrast, West Bangka, South Bangka, and Pangkalpinang City was grew below the provincial rate.

There were 3 districts with above-average unemployment rates in the period of 2004-2008, namely Belitung, East Belitung, and Pangkalpinang City. While the 4 districts with below-average unemployment rates were the districts of South Bangka, West Bangka, Bangka, and Central Bangka. In the period of 2009-2013, the districts of Bangka, Central Bangka, and Pangkalpinang City had unemployment rates above the provincial rate. While districts with below-average unemployment rates were East Belitung, South Bangka, West Bangka, and Belitung.

The 4 districts with above average human development index level in 2004-2013 were the districts of Bangka, East Belitung, Belitung and Pangkalpinang. While the 3 districts with below-average income distribution inequity were the districts of South Bangka, West Bangka, and Central Bangka.

There were 2 districts with above-average income distribution inequity level over the period of 2004-2008 based on the economic exploitation index, namely West Bangka and Central Bangka. While the 5 districts with below-average income distribution inequity level were South Bangka, East Belitung, Bangka, Belitung, and Pangkalpinang City. In the period of 2009-2013, there was a shift where East Belitung district was included in the category of district with above-average economic exploitation level. In contrast, Central Bangka district had an economic exploitation rate below the provincial rate.

The findings of this research indicate that West Bangka and Central Bangka as the largest tin-producing districts in Bangka Belitung Islands Province have lower economic growth than of other districts. This finding is inconsistent with some other research findings stating that countries with income from oil and other natural resources do not meet the expectations that the income should be a long-term economic development stimulus (Sachs & Warner 1999, 2000, 2001). Some countries such as Mexico, Venezuela, Nigeria, Angola, Colombia, Sudan, Iraq, Congo, Sierra Leone, and Indonesia are the examples of some countries that have barriers for economic diversification, poor social welfare indicators, poverty, inequity and unemployment, above average corruption, poor management, over-authoritative regulation or weak and threatening laws, rent-seeking culture, environmental damage, frequent human rights violations and bigger conflict and war risks (Humphreys et al., 2007: 334). In contrast, some countries such as Tanzania, Argentina, Madagascar, Mongolia, Kyrgyzstan, Armenia, Brunei, Qatar, United Arab Emirates, Kuwait, Zambia, Ghana, Chile, Botswana, Mexico and Norway succeeded in managing their natural resources with effects on the welfare of the people which can be seen from the level of income, education, and health (Humphreys et al., 2007: 2).

Means difference analysis indicates that there are substantial differences of economic growth, poverty, unemployment, and human development index in districts in Bangka Belitung Islands Province over the period of 2004-2008 and 2009-2013. This shows that Bangka Belitung Islands Province has shown a good achievement. Table 3 shows the average poverty level before the implementation of Law No. 11 of 1967 is higher than the average poverty level after the implementation of Law No. 4 year of 2009.

However, Bangka Belitung Islands Province needs a fundamental change as an effort to improve the inequality of income distribution. The test result of average difference of the economic exploitation index of economic growth of all districts in this province at the time of the enactment of Law no. 11 of 1967 and after the enactment of Law no. 4 Year of 2009 is significant.

**Table 3: Average differences test result of economic growth, poverty, unemployment, and economic exploitation, human development index of districts in bangka belitung islands province in year 2004-2008 versus 2009-2013**

No	Districts	GR		POV		EMPL		Exploitation Index		HDI	
		MD	Prob	MD	Prob	MD	Prob	MD	Prob	MD	Prob
1	Bangka	-0.911	0.235 (ns)	3.541	0.003 (***)	1.968	0.053 (*)	-0.773	0.006 (***)	-0.269	0.003 (***)
2	Belitung	-0.384	0.359 (ns)	2.243	0.022 (**)	5.588	0.01 (**)	-0.873	0.002 (***)	-0.237	0.003 (***)
3	West Bangka	-1.118	0.119 (ns)	3.287	0.007 (***)	2.954	0.072 (*)	-0.267	0.006 (***)	-0.234	0.003 (***)
4	Central Bangka	-1.917	0.058 (*)	3.096	0.005 (***)	2.246	0.032 (**)	-0.271	0.111 (ns)	-0.276	0.014 (**)
5	South Bangka	-1.541	0.093 (*)	2.304	0.016 (**)	2.978	0.025 (**)	-0.643	0.013 (**)	-0.303	0.005 (***)
6	East Belitung	-0.479	0.215 (ns)	4.676	0.003 (***)	4.346	0.001 (***)	-0.783	0.003 (***)	-0.280	0.002 (***)
7	Pangkalpinang	-1.452	0.062 (*)	1.384	0.033 (**)	3.12	0.048 (**)	-0.721	0.013 (**)	-0.282	0.001 (***)

Source: Processed from the Central Bureau of Statistics (2004-2013)

Notes: GR= Economic Growth; POV= Poverty; EMP= Employment; EI= Exploitation Index; HDI= Human Development Index; MD: Means Difference.

- \*) : significant at  $\alpha=10\%$
- \*\*\*) : significant at  $\alpha=5\%$
- \*\*\*\*) : significant at  $\alpha=1\%$
- ns : non significant

The quality of economic growth affects the welfare of the people. Economic growth is normally followed by poverty, expansion of employment and equal distribution of income as welfare of the people. Increase related to the location of regions that have economic growth, they may not necessarily have low levels of poverty and unemployment, as well as income inequity. In contrast, districts with low poverty and unemployment rates, as well as unequal income distribution are not necessarily linked to high levels of economic growth.

The following figure shows the classification of districts with economic growth rates, poverty, unemployment, economic exploitation index, and human development index over the period of 2004-2008 versus 2009-2013. Based on the classification of regional development of districts, regions with economic growth, poverty, unemployment, and inequity of income distribution in Bangka Belitung Islands Province over the period of 2004-2013 can be identified. The following Table 4 shows the development performance of districts in Bangka Belitung Islands Province.

**Table 4: Districts in bangka belitung islands province classification based on the achievement of economic growth, poverty, unemployment, and human development index, as well as economic exploitation in the year 2004-2013**

Districts	Growth-Poverty	Growth -Unemployment	Growth -Human Development Index	Growth -Economic Exploitation
Bangka	<i>Pro-Growth No Pro-Poor</i>	<i>Pro-Growth Pro-Job</i>	<i>Pro-Growth Pro-Human Development</i>	<i>Pro-Growth Pro-Equity</i>
Belitung	<i>Pro-Growth No Pro Poor</i>	<i>Pro-Growth Pro-Job</i>	<i>Pro-Growth &amp; Pro-Human Development</i>	<i>Pro-Growth Pro-Equity</i>
West Bangka	<i>No Pro-Growth Pro Poor</i>	<i>No Pro-Growth Pro-Job</i>	<i>No Pro-Growth No Pro Human Development</i>	<i>No Pro-Growth No Pro-Equity</i>
Central Bangka	<i>No Pro-Growth No Pro-Poor</i>	<i>No Pro-Growth Pro-Job</i>	<i>No Pro-Growth No Pro-Human Development</i>	<i>No Pro-Growth No Pro-Equity</i>
South Bangka	<i>Pro-Growth No Pro-Poor</i>	<i>Pro-Growth Pro-Job</i>	<i>No Pro-Growth No Pro-Human Development</i>	<i>Pro-Growth Pro-Equity</i>
East Belitung	<i>Pro-Growth No Pro-Poor</i>	<i>Pro-Growth Pro-Job</i>	<i>Pro-Growth Pro-Human Development</i>	<i>Pro-Growth Pro-Equity</i>
Pangkalpinang	<i>Pro-Growth Pro-Poor</i>	<i>Pro-Growth No Pro-Job</i>	<i>Pro-Growth Pro-Human Development</i>	<i>Pro-Growth Pro-Equity</i>

Source: Processed from the Central Bureau of Statistics (2004-2013)

We found that only Pangkalpinang and West Bangka managed economic growth to reduce poverty more quickly (pro-growth, pro-poor). However, other districts have challenges to keep the economic growth with poverty reduction.

As far as, economic growth and unemployment one concerned there are three districts namely Bangka, Belitung, West Bangka, Central Bangka, South Bangka, and East Belitung that successfully encourage economic growth along with the expansion of labor (pro-growth pro-job). However, Pangkalpinang have challenges to keep the economic growth with the expansion of labor.

Seen from the economic growth and the human development index, only Bangka, Belitung, East Belitung, and Pangkalpinang district that successfully encourages economic growth with human development. However, West Bangka, Central Bangka, South Bangka have challenges to keep the economic growth with human development.

While if seen from the economic growth and economic exploitation there are four districts namely Belitung, East Belitung, Bangka, and Pangkalpinang City that manage to encourage economic growth along with the equity (pro-growth, pro-equity). However, West Central Bangka and West Bangka have challenges to keep the economic growth with equity.

Over the period of 2004-2013, Bangka Belitung Islands Province has experienced economic growth. However, the economic growth has not been able to improve the welfare of the people as reflected in the inequity of income distribution as measured by the economic exploitation index. In fact, the success of the development of a country or region is not only measured from the level of economic growth but also has to be followed by efforts to overcome problems such as poverty reduction, unemployment reduction, and equal distribution of income (Kuncoro, 2010: 1-2).

Bangka Belitung Islands Province is one of the provinces that have abundant natural resources, but it has not been able to improve the welfare of its people. In this context, it is very interesting to evaluate the development policy strategy of Bangka Belitung Islands Province during the period of 2004-2013, in which the province has experienced growth without development that means the economic growth is not followed by development. This research found similar findings with the research

conducted by Kuncoro & Idris (2012) in East Kalimantan, an area rich in natural resources, where growth without development was also found.

The wealth of natural resources in the form of tin metal has been exploited by the central government and foreign investors since the colonial era until the era of reformation and regional autonomy. In the new order era, tin mining management policy was carried out by two big companies namely PT. Timah and PT. Kobatin. Since the reformation era, the policy of tin mining industry management has shifted from the domination of central government to local government. During the period of 2004-2013 there were 22 smelter companies licensed by local governments in Bangka Belitung Islands Province and some of them directly exported tin without a label or brand to Singapore at a low price. This reduces the country's revenue from royalties as well as reducing the world's tin prices.

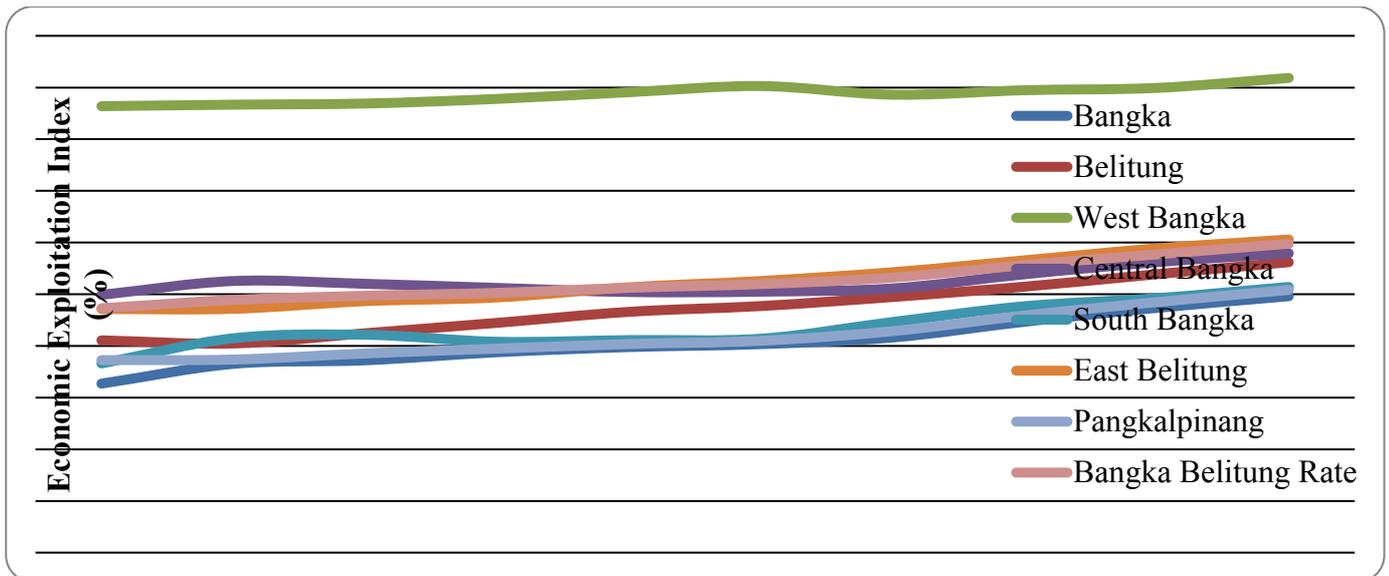
**Table 5: List of tin companies in bangka belitung island province**

No	Company	Owner
1	PT. Timah Tbk	State- Owned Enterprises
2	Koba Tin	75% <i>Malaysia Smelting Corporation Berhad</i> and 25% PT. Timah
3	Tinindo Internusa	Private
4	Bukit Timah	Private
5	Venus Inti Perkasa	Private
6	Refined Bangka	Private
7	Bangka Timah Sejahtera	Private
8	<i>United Smelting</i>	Private
9	Billitin Makmur Lestari	Private
10	Bangka Putra Karya	Private
11	Bangka Kudai Tin	Private
12	Nurjanah	Private
13	Prima Timah Utama	Private
14	Alam Lestari Kencana	Private
15	Belitung Industri Sejahtera	Private
16	Babel Inti Perkasa	Private
17	Stanindo Inti Perkasa	Private
18	DS Jaya Abadi	Private
19	Serumpun Sebalai	Private
20	Gita Pesona	Private
21	Makmur Mandiri	Private
22	Sinar Logindo Alam	Private

Source: Processed from the Central Bureau of Statistics (2004-2013)

The high investment of foreign and domestic companies in managing the wealth of natural resources in the form of tin metal in Bangka Belitung Islands Province has not been able to improve the people's welfare. This can be seen from the economic exploitation index during the year of 2004-2013 (see Figure 4). This index shows the level of economic exploitation which is estimated by comparing per capita GRDP with per capita consumption expenditure (Mubyarto, 2005: 174). Bangka Belitung Islands Province is one of the provinces with very high level of economic exploitation index. In fact, the economic exploitation index of Bangka Belitung Islands Province is higher than the 4 provinces with other natural resources such as East Kalimantan, Nangro Aceh Darussalam, Papua and Riau (Mubyarto, 2005: 174; Kuncoro, 2013: 21).

**Figure 4: Economic exploitation index of districts in bangka belitung islands province in year 2004-2013**



Source: Processed from the Central Bureau of Statistics (2004-2013)

The economic exploitation index in the Bangka Belitung Island Province during the period 2004-2013 varies and tends to increase at the district level. The index of economic exploitation during the period of 2004-2013 in West Bangka Regency is the highest exploitation index with the average exploitation index of 95.87%. In fact, the economic exploitation index in West Bangka is higher than average of economic exploitation index in Bangka Belitung Islands Province (92.74%). Central Bangka (92.00), Belitung (91.74%), South Bangka (91.37%), East Belitung (92.13%) and Pangkalpinang (22%) had lower exploitation index compared with exploitation index of Bangka Belitung Islands Province.

The findings of this research indicate that the high economic exploitation index in districts in Bangka Belitung Islands Province can be explained as follows. First, the local government has granted permissions for private companies and the people to exploit tin in this region. The results of tin mining by private companies and the people do not provide revenue for local government and central government due to the corruptive behaviors and tin smuggling. Second, the central government authority to maintain the profit-sharing policy is still strong. Third, illegal mining activities that lead to tin smuggling are conducted by some private companies. This causes losses for the country and local governments from tin revenue (ICW, 2014). Another impact is the severe environmental damage while the regional income is not increasing (Erman, 2013). Fourth, the collectors and smelter companies buy illegal tin production (from unconventional mine) from the miners at low prices, then they sell it at a higher price. As a result, the people and local government cannot enjoy the result of the wealth of natural resources that they have while the collectors and smelter owners are getting richer (Erman, 2009). Fifth, the environmental damage caused by tin mining activities almost covers all aspects of the natural ecosystem, namely land and sea. As a result, there is a decrease in the level of regional income which ultimately leads to increased poverty (Mongabay, 2013). This revalidates Ross's (2007) study that explains that mining booming will disrupt other sectors.

## 5. CONCLUSIONS AND POLICY RECOMMENDATION

As the province with the greatest tin natural resources in the world after China, Bangka Belitung Islands Province has succeeded to create economic growth during the years 2004-2013. As the province with the greatest tin natural resources in the world after China, Bangka Belitung Islands has succeeded to create economic growth during the years 2004-2013. The major finding of this research found that Bangka Belitung Islands Province experienced the phenomenon of growth without development. This indicates that the natural resources owned by Bangka Belitung Islands Province are enjoyed by the central government and foreign companies and have not been enjoyed by the local people. These findings support the findings of research conducted by Kuncoro & Idris (2010) in East Kalimantan Province which also experienced the phenomenon of growth without development as indicated by the high economic exploitation index. The findings of several research also show similar findings that mining sector development in several regions in Indonesia which are rich of natural resources has enclave models such as in East Kalimantan, Irian Jaya, Riau, South Sumatra and Aceh (Rigg, 1997) and Eng (2014). The major finding of this research found that Bangka Belitung Islands Province experienced the phenomenon of growth without development. This indicates that the natural resources owned by Bangka Belitung Islands Province are enjoyed by the central government and foreign companies and have not been enjoyed by the local people.

The findings of this research found that the policy changes made by the central government in mining governance did not give a positive impact on social welfare and development in the province. Finally, the findings of this research resulted in a fundamental policy recommendation for the government to make policy changes in the field of general mining in Indonesia, especially in the field of tin mining in order to have an impact on social welfare and the economic development in the region.

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