REGIONAL DEVELOPMENT, ENERGY AND THE ENVIRONMENT IN INDONESIA

Edited by Bernadette Robiani Budy P. Resosudarmo Armida S. Alisjahbana Aslamia Rosa



Indonesian Regional Science Association



REGIONAL DEVELOPMENT, ENERGY AND THE ENVIRONMENT IN INDONESIA

Edited by Bernadette Robiani Budy P. Resosudarmo Armida S. Alisjahbana Aslamia Rosa







TABLE OF CONTENTS

Tables Figures List of Contributors Introduction	v vii viii 1
PART 1. REGIONAL DEVELOPMENT	
1. Why Decentralization Failed: The Role of Institutional Factors by Iwan Jaya Azis	
	7
2. Shared Revenue and Regional Expansion: The Case of Bengkalis Region	
by Hefrizal Handra	23
3. Improving Regional Economic Development through Promoting Agglomeration Economies	
by D.S. Priyarsono and M. Irfan Affandi	45
4. Public Private Partnership Scheme for Financing the Development of Low Cost Apartments in Urban Areas by Habsari Kuspurwahati	
og Hucourt Kuspus Guiatt	56
5. Preliminary Analysis of Spatial Regional Growth Elasticity of Poverty in Sumatra	
by Waleerat Suphannachart and Budy P. Resosudarmo	83
PART 2. ENERGY	
6. The Impact of World Oil Price Fluctuation on the Indonesian Economy	
by Muhammad Zilal Hanızah and R. Suryadi	103
7. The Role of the Mining Sector in South Sumatra	
by Syamsurijal, A.K	126

PART 3. THE ENVIRONMENT

8. Greenhouse Gas Emission in Indonesia: The Significance of Fossil Fuel Combustion by Budy P. Resosudarmo, Ditya A. Nurdianto and Arief A. Yusuf	147	1.1 1.2 1.3
9. Income-Environment Quality Relationship		2.1
by Deni Kusumawardani	161	
	-	2.2
		2.3
		2.4
		2.5
		2.6
		2.7
		2.8
		2.9
		2.10
		2.10
		3.1
		3.2
		3.3
		3.4
		4.1
		4.1
	•	4.2
		4.3
		4.4
		5.1
		5.2
		6.1
		6.2
		6.3
		6.4
		6.5

5.1 5.2 6.1 6.2 6.3 6.4 6.5 6.6 6.7 6.8

SHARED REVENUE AND REGIONAL EXPANSION: THE CASE OF BENGKALIS REGENCY

Hefrizal Handra

Centre for Regional Finance Studies
Faculty of Economics, Andalas University
(hefrizal@yahoo.com)

The decentralisation process which began in 2000 shortly after the enactment of Law 22/1999 has induced regional expansion. There are many incentives identified for regional expansion. This paper reveals that Indonesia's shared revenue system is one of them among other financial incentives.

The argument is mainly based on a case study in Bengkalis Regencies. It is one of the richest-oil regions in Indonesia. Since the central government revenue from oil exploitation began to be shared to regions in 2001, Bengkalis received substantial amount of revenue. It was expanded into four autonomous regions in 2000. Currently, there is an initiative to expand the region into three regencies.

Although the interest of local elites is suggested as the main factor for the expansion proposal, the current shared revenue formula was proved to be an important incentive. Using the data in 2007, a simulation shows that the total amount of shared revenue received by those three candidates of new regencies is much higher than the total amount received by one Bengkalis.

INTRODUCTION

Bengkalis Regency is one of the richest-oil regions in Indonesia. Since the implementation of fiscal decentralisation in 2001 when the central government revenue from oil exploitation began to be shared to regions, Bengkalis received substantial amount of revenue. Although Bengkalis regency received only 6% of net oil exploitation revenue, it has become the main source of regency revenue since fiscal year (FY) 2001. The regency government revenue in FY 2001 increased by 3.5 times previous year revenue, contributed by the increased of shared revenue by about 16 times.

The shared oil revenues have continued to become the most important source for regional development fund in Bengkalis until now. In FY 2006, shared non-tax contributed about 76% of total Bengkalis revenues which mostly comprise of shared

oil revenues. The contribution of other kinds of revenues such as grant from central government, shared revenue from provincial government has become negligible in comparison to shared oil revenue. Moreover, local owned revenues from local taxes and charges were very tiny.

Bengkalis Regency is one of the regencies which has been expanded several times. In 1999, the administrative municipalty of Dumai, which was a part of Bengkalis Regency, became an autonomous municipality in Riau Province. Then in 2000, other two autonomous regencies, Siak Regency and Rokan Hilir Regency, were formed from the former administrative sub-regencies of Bengkalis. A current important local issue in Bengkalis is the proposal for the expansion of the region which initiated by a group of local society in a particular area. This proposal was viewed as threat for the Bengkalis since the oil resources are not located in the area of new Bengkalis.

This paper is purposed to comprehensively observe the shared non-tax revenue in Bengkalis and its relation with the initiative of regional expansion

OVERVIEW OF INTER-GOVERNMENTAL FINANCIAL RELATIONS IN INDONESIA

Inter-governmental financial relations in Indonesia, from the revenue point of view, are described in Figure 1. Both Central Government and Sub-National Governments are assigned separate tax bases. Tax assignment either to the Central Government or to the Regions is designed by the Central Authorities (Central Government and House of Representatives), which is formalised by the law.

In addition to the assignment of taxing power to each level of government, there are also other forms of central-regional financial relations. Central Government's domestic revenues¹ are subjected to transfer to sub-national governments. Transfers from Central Government to the regions aim to fulfill the fiscal needs of regional governments, which cannot be met by the region's own revenues. In

¹ Domestic revenue means the revenue from taxes and non-taxes collected in Indonesia.

other words, the transfers are to close the vertical imbalance between Central Governments and Regional Governments.

Two forms of transfers have been practiced in Indonesia in the last three decades. The first is by transferring revenues from particular central taxes and non-taxes to the source regions. This is usually called *shared revenues (Bagi Hasil)*. For example, Land and Building Taxes administered by Central Tax Office are to be transferred to the source regions. This will be further discussed in the next part.

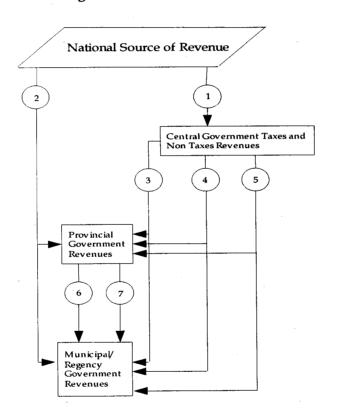


FIGURE 2.1 Inter-governmental Financial Relations in Indonesia

Notes:

- 1. Tax assignment to the Central Government regulated by various Laws about Central Government taxes.
- 2. Tax assignment to both levels of Regional Governments.
- 3. Shared Revenue between Central Government and Regions.
- 4. General Purposes Grant from Central Government to Regions.
- 5. Specific Purposes Grant from Central Government to Regions
- 6. Shared Revenue between Provinces and Municipalities/Regencies.
- 7. Grant from Provinces to Municipalities/Regencies.

The second form of transfer is the grant from Central Government to the regions. There are at least two kinds of grants in many countries, *general purposes grant and specific grants*, to the regions. In the past, general purpose grants were practiced in a limited form, which was called the development block grant. Most grants from Central Government to Regions were in the form of specific grants, which can be used only by the regions for the purpose set by Central Government. With Law 25/1999, Indonesia simplifies the grant system and introduces a general purpose grant as an equalisation grant.

Between provinces and municipalities/regencies, there are also some forms of financial relations. Particular provincial revenues should be also shared with the municipalities/regencies within the province. Such shared arrangements are regulated in Law for regional taxes and charges. Furthermore, some provinces also provide grants to their municipalities/regencies although such an arrangement is not required by the Law.

Such kinds of inter-governmental financial relations have been practiced in Indonesia for about three decades. The changes of financial relation in 2001 were noted in the changes of various Laws such as the amendment of Laws or Regulation about Central Government Taxes and about Local Taxes and Charges. Nevertheless the most significant changes were the implementation of Law 25/1999 at the beginning of fiscal year² 2001. This Law regulates two important sources of revenue of regional governments, which are shared revenue between Central Government and Regions and grants from the Central Government to regions.

Regarding the local taxing power, in 1997 the Law 18/1997 limited the authority of municipalities/regencies to collect only particular taxes and charges. This law applied a closed list of local taxes and charges. It then lead to the abolishment of

² From 2001, the fiscal year for the public sector in Indonesia begins on 1 January each year. It becomes parallel with the fiscal year of the private sector. Previously, the public sector fiscal year began on 1 April while the private sector began on 1 January. For the implementation of such change, in 2000, the fiscal year of public sector was only nine months (from 1 April 2000 to 31 December 2000).

various kinds of local taxes and charges However, this law was applied for only three fiscal years. Following the introduction of Law 22/1999 and Law 25/1999, it was then amended by Law 34/2000. It opens the room for regional government to exploit as many sources of revenue as possible despite the listed local taxes. In principle, the municipal and regency governments have been assigned unlimited kinds of taxes. They are not permitted, however, to levy the taxes on the base that has been exploited by central and provincial government taxes. For example, they are not permitted to levy taxes on income and taxes on sales of goods and services that have been exploited by value added taxes, etc.

The introduction of Law 34/2000 has encouraged the regions to create as many regional taxes and charges as possible. Lewis (2003, Table 2) found that there were about 803 new taxes and charges created by 231 municipalities/regencies during the run up to and through fiscal year 2001.

Nevertheless, discretion to create local taxes for municipalities/ regencies has not yet improved the performance of *Locally Owned Revenue* (*Pendapatan Asli Daerah/PAD*) until now. As a part of the national revenue, PAD is very small. The domination of Central Government over the source of revenue is confirmed by the data in Table 1. Since FY 1983/1984, the share of sub-national revenues to the total governmental revenue has been only between 4-7%. This pattern has not changed over a long period. The share even decreased to 3.7% in FY 1999/2000. It might be caused the economic crisis, which began in the middle of 1997. Although there was slight progress in FY 2001 by the rising of the sub-national share to 4.9%, it was still below the share in 1983/1984. Then, the improvement has been made in 2005 where the share of sub-nasional revenues incressed to 6.7% in line with the improvement of provincial revenues.

TABLE 2.1 Performances of Local Government Revenues in Indonesia, Pre and Post Law 34/2000

Level of Government	Pre Implementation of Law 34/2000				Post La	aw 34/20	000	
	1983/1	984	1999/2000		2001		2005	
	Share	%GDP	Share	% GDP	Share	%GDP	Share	%GDP
Cities/Regencie	1.9%	0.4%	1.7%	0.3%	1.7%	0.4%		
s							1.7%	0.4%
Provinces	3.1%	0.6%	2.0%	0.4%	3.2%	0.7%	4.7%	1.0%
Central	95.0%	20.1%	96.2%	18.6%	95.1%	20.3%	93.6%	20.1%
Total	100%	21.1%	100%	19.3%	100%	21.4%	100%	21.4%

Sources: Writer's calculation based on data available at Devas (1989, Table 1.3) for 1983/1984, Ministry of Finance for others.

Moreover, there is no change in the pattern of taxing power between regions since FY 1983/1984. The performance of provincial PAD is clearly better then the district one, although its inferiority to the Central Government has remained unchanged. The performance of provincial PAD has improved significantly in FY 2001 and much even better in FY 2005, while the performance of municipalities/regencies PAD in FY 2005 still remained as in FY 1983/1984.

Despite the assignment of taxing power to the regions, regional governments in Indonesia also have the right over a portion of certain Central Government Revenues. Particular kinds of Central Government revenues, taxes and non-taxes, should be shared by the regions in which the revenues are raised. This type of regional source of revenue is usually called *shared revenues* (*bagi hasil*). Regional governments, normally, are not involved in the administration of these types of revenue. They just receive them in the form of transfers from the Central Government.

The shared revenue mechanism is different from a shared of tax base. The tax base sharing refers to two or more levels of government levying its own rates on a se. "Tax base sharing is quite common in many developed countries non-existent in developing countries" (Shah et al, 1994, p.45). In a base sharing has never been introduced.

The shared revenues had been practiced in Indonesia for decades. Regarding the types of Central Government's revenues, they can be categorised into *shared taxes* and *shared non-taxes*. In the old order era, at least four central government taxes, the transfer tax, the tax on wages, stamp duties, the wealth tax, were shared with regions (Government Regulation 12/1958). The land tax has been shared to the regions since 1950s and has been continued by the new order regime in form of the land and building tax (*Pajak Bumi dan Bangunan*/PBB) following the introduction of Law 12/1985. The Central Government non-tax revenue started to be shared in 1967, especially the forestry exploitation revenue.

There was no significant change of shared revenue during the New Order Era. A dramatic change was after the introduction of Law 25/1999. It introduced the share of oil, gas and fishery revenues. Individual Income Tax also began to be shared with the regions in FY 2001 following the amendment of the Income Tax Law³. There was no change in the share of land and building taxes and revenue from general mining and forestry. Moreover, other important central taxes, such as Value Added Tax, Corporate Income Tax, remained solely Central Government Revenue (see Table 2 for a comparison with the previous arrangement).

Then in 2005 with the Law 33/2004 which replaced Law 25/1999, the shared arrangement has changed for particular central non-tax revenues. The shared oil revenue for regions increased to 15.5%, while the revenue from gas became 30.5% for regions. The way in which the oil and gas revenue is shared to regions is also regulated in the Law. The 15% shared oil revenue for regions should be divided as follows:

- a. 3% is for the Province in which the exploitation is located
- b. 6% is for the municipality/regency in which the exploitation is located
- c. 6% is divided equally for all municipalities/regencies within the province

³ Law 7/1983 relating to income taxes was amended by Law 17/2000 to allow the sharing of individual income tax with regions.

The 30% shared gas revenue for regions should be divided as follows:

- a. 6% is for the Province in which the exploitation is located
- b. 12% is for the municipality/regency in which the exploitation is located
- c. 12% is divided equally for all municipalities/regencies within the province For the 0.5% share oil and gas revenue should be allocated to increase the basic education expenditure and distributed as follows:
- a. 0.1% is for the Province in which the exploitation is located
- b. 0.2% is for the municipality/regency in which the exploitation is located
- c. 0.2% is divided equally for all municipalities/regencies within the province

TABLE 2.2 The Type of Central Government Revenue Shared to Regions, A Comparison of Pre- and Post-Law 25/1999

Central Government Revenues	Pre Law 25/1999	Post Law 25/1999
Tax Revenues		
- Income Taxes (Corporate and Individual)	Not shared	Individual Income Tax, 20% shared to regions on original basis
- Value Added Tax	Not shared	Not shared
- Import Duties	Not shared	Not shared
- Excises Duties	Not shared	Not Shared
- Export Tax	Shared to Province until 1974	Not Shared
- Land and Building Tax	90% shared to regions on original basis	original basis
- Duties on Land and Building Transfers	80% shared to regions on original basis	80% shared to regions on original basis
Non Tax Revenues		
- Oil	Not Shared	15% shared to regions on original basis
- Gas	Not Shared	30% shared to regions on original basis
- General Mining	80% Shared to regions on original basis	80% shared to regions on original basis
- Forestry	80% shared to regions on original basis	80% shared to regions on original basis, except for reforestation fund.
- Fishery	Not Shared	80% distributed to R/M equally
- Profit from State Own Enterprises (BUMN)	Not shared	Not Shared

Sources: Various Laws and Government Regulations and Kadjatmiko (2000).

Note: R: Regencies, M: Municipalities

The amount of shared revenue received by each region each year will be known exactly after the real national revenue is calculated. However, every year at the

end of current fiscal year, the Ministry of Finance (MOF) issues the decree about the estimation of next year shared revenue for each region. Then the MOF transfer the fund quarterly to region. The amount of fund transfer at the first and second quarter is usually based on the estimation, while the amount transfer at the third and fourth quarter is adjusted with the real national revenue.

The increased number of Central Government revenues distributed to the regions has resulted in a dramatic growth of shared revenue from about Rp. 6.2 trillions in FY 1999/2000 to about Rp. 19.2 trillions in FY 2001. This redistribution which rose by more than 300%, was mainly due to the share of non-taxes revenues from the exploitation of oil and natural gas and the share of individual income tax. Then the pattern of shared revenues slightly changed in FY 2006. The amount of shared tax exceeded the amount of shared non tax in FY 2006. It was due to higher growth of central tax revenues than non-tax revenues.

TABLE 2.3 Comparison of Shared Revenue Between FY 1999/2000, FY 2001 and FY 2006 (in billion rupiah)

Shared Revenues	1999/2000			2,001			2,006		
	Local	Prov.	Total	Local	Prov.	Total	Local	Prov.	Total
Shared Taxes	3,595	1,280	4,874	3,669	3,667	7,337	14,661	8,674	23,335
Shared Non Taxes	425	901	1,326	9,313	2,559	11,871	18,035	5,194	23,229
Total	4,020	2,180	6,200	12,982	6,226	19,208	32,695	13,869	46,564

Sources: Handra (2005) and Directorate General of Fiscal Balances, Ministry of Finances RI, 2007. Note: Local: Localities, Prov: Provinces

DESCRIPTION OF REGENCY

History

Historically, Bengkalis was a part of Siak Sri Indrapura Kingdom. During colonial era, the Kingdom was maintained without governing power. After independent, the sovereignty of Kingdom was transferred to the Government of Unitary State of Indonesia by King Sultan Syarif Kasim II. Bengkalis become autonomous regency in 1956 by Law 12/1956 and as a part of Central Sumatra Province. In 1958, Riau Province was formed and Bengkalis became a part of it.

During New Order Era, the size of Bengkalis Regency Government has grown. In 1998, it had 2 administrative sub-regencies, an administrative municipality in Dumai, 19 sub-districts and 315 villages. Dumai, then, became an autonomous municipality in 1999 along with several other new regencies in Riau Province. In 2000, other two autonomous regencies were formed from the former administrative sub-regencies. As a result, there were only 8 sub-districts left in Bengkalis, while others (11 sub-districts) have become part of Dumai Municipality, Siak Regency and Rokan Hilir Regency. Six years after expansion of Regency, The new Bengkalis Regency has expanded the number of its sub-district from 8 sub-districts in 2000 to 13 sub-districts in 2006.

The area of Bengkalis comprises the mainland area along the coast of Riau and several big islands near the coast (see the map). There are four sub districts located in the mainland which are Mandau, Pinggir, Siak Kecil and Bukit Batu. The capital city of Bengkalis Regency is the town of Bengkalis which is situated in the island of Bengkalis. There is no any bridge between the islands. Water transportation is very important in moving people and goods between islands and from the islands to mainland of Riau. The roads from mainland to certain islands are link with ferries.



FIGURE 2.2 Map of Bengkalis Regency

Sources: Bengkalis Official Website, http://www.bengkalis.go.id (accessed by January 2008)

Socio-Economic Condition

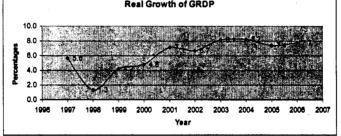
Bengkalis population was estimated about 738,996 people in the mid of 2007. It was 549,715 people in 2002. However, in 1998, before the expansion of regency, it was about 1.18 millions. The growth of population is very high. According to BPS Bengkalis, the growth of population in 2006 was 5.3% and predicted to grow by about 4.3% in 2007. In average, during the period 2002-2007, annual growth of population was about 6.1%.

High growth of population is likely caused by migrant worker from other regions in Indonesia. The rise of Bengkalis government expenditure since 2001 was a factor that stimulated the creation of jobs in regions. Local statitical data shows that the significant increase of the number of jobs in Bengkalis were due to the construction sectior, finance, transportation and industry which grew by more than 20% per year during the period of 1999-2004. The highest growing sector was the construction sector which grew by 56.8% per year during that period. This was stimulated by higher number of local government construction projects. As a result, the unemployment rate declined by about 5% per year.

Bengkalis is one of the richest-oil region in Indonesia. As the richest-oil region, the oil-exploitation industries seem to give very little contributions to the local economy, especially prior to 2001. As indicated by Hill(2000), the oil-mining industry tends to be highly import-intensive of which the projects are managed by the company from outside the region. This industry is almost separated from other sectors of the local economy.

FIGURE 2.3 Bengkalis Annual Economic Growth (excluded Oil and Gas) from 1997 to 2006

Real Growth of GRDP



Source: Bengkalis Regional Income Several Years, BPS Bengkalis, 2007

The exclusion of Oil and Gas Production from the calculation of Gross Regional Domestic Product (GRDP) is likely to give a better picture of regional economy. Figure 2.3 shows that the local economy has grown significantly shortly after the economic crisis in 1998. Local economy steeply grew by 7.1% in 2001 in line with the significant growth of local government revenue in 2001 due to implementation of shared oil revenue. Bengkalis economy continued to growth much higher than the growth of national economy until now.

Significant growth of local economy has also followed by the growth of Bengkalis Human Development Index (HDI) from 66.9 in 1999 to 70.8 in 2004. Moreover, according to several years' data of Bengkalis provided by BPS, some education indicators have also improved, such as the gross enrollment rate of primary school increased from 107.4 in 2000 to 117.5 in 2004 and primary school drop out rate decreased from 1.4% in 2000 to 0.27% in 2004.

However, high local economic growth has not been followed by the improvement of income distribution. It shows by the Gini Coefficient (GC) that not much changes. Although the GC has slightly reduced from 0.45 in 2000 to 0.44 in 2003, overall income disparities were still very high.

TABLE 2.4 Income distribution in Bengkalis in 2000 and 2003

Division of Population	% Income			
·	2000	2003		
40% low income population	9.2	10.4		
40% middle income population	50.1	47.5		
20% high income population	40.00	42.1		
Gini Coefficient	0.45	0.44		

Sources: RPJMD Bengkalis 2005-2010

The Proposal for Expansion of Regency

The latest local political development in Bengkalis was the proposal for the formation of two new regencies, Mandau Regency and Meranti Regency. The proposal has been passed by the community formed committee to Indonesian Parliament without the endorsement from Bupati Bengkalis and regency.

parliament neither from Riau Provincial Governor and Provincial Parliament. If the proposal is approved by Central Parliament, the condition of regency can be described as in table 5. The proposed Mandau Regency is located in the east coast of Riau and it will be a merge of four sub-districts (Mandau, Bukit Batu, Siak Kecil, and Pinggir). The proposed Meranti Regency will comprise five sub-districts in the island of Merbau, Ransang and Tebing Tinggi. Meanwhile the Bengkalis Regency will be leaved with four sub-districts in the island of Bengkalis and Rupat.

TABLE 2.5 The proposal of regency expansion

	Proposed New	Total Area	Populatio	n 2006	
Sub-District	Regencies	(Km²)	Total	%	
1. Bengkalis	New Bengkalis	2,463	157,618	22%	
2. Bantan					
3. Rupat			ļ		
4. Rupat Utara	1		1		
5. Merbau	Meranti	3,708	210,418	30%	
6. Rangsang					
7. Rangsang Barat					
8. Tebing Tinggi					
9. Tebing Tinggi Barat					
10. Pinggir	Mandau	5,311	343,197	48%	
11. Siak Kecil					
12. Mandau					
13. Bukit Batu					

Source: writer's calculation from the data available at Bengkalis Official Website, http://www.bengkalis.go.id (accessed by January 2008)

The regency expansion was initiated by particular groups of community in the region and not supported by the local elite in the capital town of Bengkalis. The expansion of regency is a threat for the Bengkalis Island where the capital is located. The island will be disadvantaged by the expansion since the source of oil exploitation is located outside the island. About 90% of oil sources are located in Mandau sub-regency and 10% is in Meranti area. Therefore, if the proposal of expansion is approved by Central Government, Bengkalis regency will loss a big part of shared oil revenues. However, as a part of Riau Province, the origin Bengkalis Regency will still receive particular amount of shared oil revenues according to Law 33/2004 as explained in the previous part of this paper.

Local Government Finance

A dramatic change of Bengkalis revenue was in 2001 which mainly caused by an increase of shared revenues, especially the shared revenue of natural resource. In FY 2001, the shared revenues rose by about 1,642% due to the new shared revenue from oil production. The shared revenues alone contributed about 77% to Bengkalis revenues in FY 2001. The sensational growth of revenue in 2001 has not been followed by a comparable growth of expenditure. The total revenue grew by 358%, while the expenditure rose by only 290%. The financial report 2001 recognised that about 42% of the revenue⁴ in FY 2001 was brought forward to the 2002 budget as a surplus from the previous year.

The pattern of Bengkalis Government Revenue during period 2001-2006 has not much changed. The transfers from Central Government remained as the main sources of revenues especially the shared natural resource revenues. However, during this period, the growth of PAD and shared taxes exceeded the growth of others, so that the contribution of PAD increased to 5% in 2006. In line with the growth of central government tax revenue, the shared tax for Bengkalis also grew higher than the shared non tax.

TABLE 2.6 Pattern of Bengkalis revenue during 2001-2006

			Annual
Revenues	Sha	Growth	
•	2001	2006	2001-2006
Locally Owned Revenues (PAD)	3%	5%	38%
Transfer from Central			
Government	97%	95%	21%
- Shared Revenues	77%	87%	24%
Shared Taxes	6%	11%	39%
Shared Non Taxes	72%	76%	22%
- Grant	20%	8%	1%
Other Revenues	0%	0%	0%
Total Revenues without Surplus	100%	100%	27%

Source: writers' calculation from Bengkalis' financial report.

⁴ The amount was about 450 billion rupiah.

Different from PAD and shared revenues, the grant from Central Government to Bengkalis practically remained at the same amount during 2001-2006. Since the objective of general purpose grant (DAU) is for equalisation, Bengkalis as a region with high income from shared oil revenue has experienced constant amount of grant since 2001.

Having significant shared oil revenues, Bengkalis regency experienced high budget surplus every year. The amount of budget surplus has grown from only Rp. 11.7 billion in FY 1999/2000 to Rp. 817,6 billion in FY 2006. During 2001-2006, it was calculated that the surplus grew by 72% per year. In FY 2001, the surplus was only 5% of total revenue, while in FY 2006 it became 24% of total revenue.

High surplus was caused by various factors. The first is because of difficulty in predicting the amount of shared oil revenue. The increased of world oil price escalated the actual amount of shared oil revenue for Bengkalis in 2006. Meanwhile targeted revenue of Bengkalis was much less than that. Since the expenditure budget was in line with targeted revenue, Bengkalis at the end spent much less than its actual revenue. In turn, it leads to high surplus in FY 2006. Secondly, the surplus was also due to the inability of local government to implement the development program because of late start due to late budget approval. Bengkalis 2006 budget was approved in March 2006 and local government could start to implement the project on June. Therefore, civil servant only has six months for project implementations. Moreover, there were also many problems facing by contractors to run the project in Bengkalis due to geographical condition of the region which comprises several islands. The last possible reason for having high surplus is an incentive to get the interest revenue from cash management. It was shown by a dramatic increase of PAD in FY 2006 and FY 2007 which was dominated by the interest revenue.

TABLE 2.7 The Revenue of Bengkalis Regency from FY 1999/2000 to 2006 (in million Rp)

·	1999/2000	2000	2001	2002	2003	2004	2005	2006
Surplus from previous year	11,735	32,903	53,839	450,568	332,888	185,999	325,367	817,614
Locally Owned Revenues (PAD)	22,925	18,767	25,267	48,868	42,289	22,337	51,817	127,859
Transfer from Central Government	158,548	115,164	949,290	970,135	1,016,076	1,233,786	1,730,490	2,414,705
- Shared Revenues	77,067	32,515	755,358	770,981	849,606	1,027,063	1,513,211	2,207,982
Shared Taxes	73,954	31,218	56,225	94,135	110,339	152,908	209,016	287,473
Share Non Taxes	3,113	1,296	699,132	676,846	739,267	874,155	1,304,196	1,920,509
- Grant	81,481	82,649	193,932	199,154	166 <i>A</i> 69	206,723	217,279	206,723
Other Revenues	3,6 <i>7</i> 9	1,856	1,764	5,022	88,299	10,855	13,805	0
Total Revenues	196,886	168,690	1,030,159	1,474,593	1,479,551	1,452,976	2,121,479	3,360,178

Source: Handra(2005) and writer's calculation from Bengkalis' financial report and data in Ministry of Finance.

DISCUSSION

Evaluation of current system of shared revenue in Indonesia and Implication for Bengkalis

Currently, according to Law 33/2004 and the latest law about duties, particular kinds of Central Government revenues, taxes and non-taxes, should be shared by the regions in which the revenues are raised. This type of regional source of revenue is usually called *shared revenues* (*bagi hasil*). Almost all central taxes, except value added tax, import duties and export tax, have to be shared with regions. Moreover, all central natural resource revenues should be shared with regions.

The first advantage of shared revenue is that the amount of fund available for the regions increases. From this point of view, the shared revenues reduce vertical imbalance between Central government and regions. Local governments, which have very low local taxing capacities and not able to finance their functions with their own revenues, have been granted some amount of shared revenues. The second advantage is that the shared revenues encourage local governments to participate in central revenue collections since they will receive a part of such revenue. This, in turn, promotes local accountability in using the fund.

However, shared revenue increase horizontal imbalance between regions. The shared revenues for regions vary according to the capacity of the region. A clear example is in the case of shared oil revenue. Regions, in which the oil exploitation is located like Bengkalis, will receive part of such revenues, while other regions outside the province with no oil will receive no share.

Moreover, a weakness of the current practice of shared revenues in Indonesia is that the management of shared revenues is lack of transparency. Study in Bengkalis confirmed that local governments have no access to the data and information related to the way in which shared revenues are calculated. In turn, the revenue budget is not accurate. Although the Finance Minister issue the decrees about predicted shared revenue for regions every year, the regions have not fully used them as the budget of revenues since they don't believe the calculation of Central Government.

Lack of trust on Central Government decree about the amount of shared revenues motivated Bengkalis government to use the conservative figure for the amount of shared revenue in the local budget. Bengkalis government put low figure in targeted shared revenues. This, in turn, resulted in high budget surplus if the actual amount transferred by Central Government is much bigger. The data shows that high budget surplus in FY 2006 and FY 2007 were due to much lower targeted shared oil revenue than the actual figure.

High reliance on shared oil revenue is a weakness for Bengkalis Regency. One day, the oil resources will be over since they are unrenewable. Bengkalis, however, should have a strategy to reduce the reliance and to find alternatives for development fund. Therefore, Bengkalis should wisely use the wind fall revenue.

Predicted Implication of Regencies Expansion for Local Government Finance

Table 8 shows that all municipalities/regencies in Riau Province regardless of the location of oil resources received a particular amount of shared oil revenues. There are only seven regions in which the oil exploitations are located, while the other

four regions are non-oil source regions. Those are Indragiri Hilir, Kuantan Singingi, Dumai dan Pekanbaru, They received the same amount of shared oil revenues. Data in table 2.8 can be used to calculate how much actually the amount of shared oil revenues derived from such seven regions.

TABLE 2.8 Predicted distribution of Shared Oil and Gas Revenue 2007 for Riau Province (in million rupiah)

No.	Regional Government	Shared Oil	Shared Gas	Total
1	Provincial Government	1,671,285	208	1,671,493
2	Kab. Bengkalis	1,611,523	42	1,611,565
3	Kab. Indragiri Hilir	334,257	42	334,299
4	Kab. Indragiri Hulu	336,897	42	336,938
5	Kab. Kampar	674,442	42	674,484
6	Kab. Kuantan Singingi	334,257	42	334,299
7	Kab. Pelalawan	340,359	42	340,400
8	Kab. Rokan Hilir	1,017,283	42	1,017,325
9	Kab. Rokan Hulu	345,600	42	345,641
10	Kab. Siak	1,022,009	42	1,022,051
11	Kota Dumai	334,257	42	334,299
12	Kota Pekanbaru	334,257	415	334,672
	Total for Riau	8,356,426	1,038	8,357,464

Source: Finance Minister Decree about predicted amount of shared revenue for regions in 2007

Based on data in table 2.8, the matrix that relates the distribution formula according to Law 33/2004 and the amount of share revenue received by source regions can be formed as follows:

Bengkalis	Indragiri Hulu	Kampar	Pelala- wan	Rokan Hilir	Rokan Hulu	Siak	Shared Revenue Received by each source region (in million Rp)
0.4	0.04	0.04	0.04	0.04	0.04	0.04	1,611,523
0.04	0.4	0.04	0.04	0.04	0.04	0.04	336,897
0.04	0.04	0.4	0.04	0.04	0.04	0.04	674,442
0.04	0.04	0.04	0.4	0.04	0.04	0.04	340,359
0.04	0.04	0.04	0.04	0.4	0.04	0.04	1,017,283
0.04	0.04	0.04	0.04	0.04	0.4	0.04	345,600
0.04	0.04	0.04	0.04	0.04	0.04	0.4	1,022,009

The above matrix can bee seen as a simultaneous linear equation AX = B, where A is the matrix of distribution formula, X is the matrix of the amount of total shared revenue derived from each source region, and B is the matrix of shared revenue received by each source region. Matrix X can be calculated by the following formula:

$$X = A^{-1}B$$

Then the result is

N. Committee of the Com	
х	B (Shared Revenue derived from each region in million Rp)
Bengkalis	3,547,962
Indragiri Hulu	7,332
Kampar	944,959
Pelalawan	16,949
Rokan Hilir	1,897,295
Rokan Hulu	31,507
Siak	1,910,423
Total	8,356,426

The above two matrix show that the amount of shared revenue originally derived from Bengkalis is Rp. 3.547 trillion, while the amount received by Bengkalis only Rp. 1.611 trillion since 20% of such amount, according to Law 33/2004 should be distributed to provincial government and other 20% should be distributed equally to all municipalities and regencies in Riau Province.

If the proposal for the expansion of Bengkalis Regency is approved, the population, area and oil resources, according to the data in 2007, will be distributed as described in table 2.9.

TABLE 2.9 The distribution of population, area, and resources in 2007

	Bengkalis	New Bengkalis	Meranti	Mandau
Population	100%	22%	30%	48%
	100%	22%	32%	46%
Area Natural Resources Location	100%	0%	10%	90%

Sources: writer's calculation

Therefore, regarding the location of oil in Mandau and Meranti and using the formula of shared revenue distribution, the predicted distribution of shared oil and gas according to Law 33/2004 can be seen in table 2.10.

TABLE 2.10 The Predicted distribution of Shared Oil and Gas Revenue 2007 for Riau Province (in million rupiah) if Bengkalis Regency divided

No.	Sub-National	Shared Oil	Shared Gas	Total
1	Provincial Government	1,671,285	208	1,671,493
2	Kab. Bengkalis	2,136,562	104	2,136,666
	- New Bengkalis	278,548	35	278,582
	- Mandau	1,449,375	35	1,449,410
	- Meranti	408,639	35	408,674
3	Kab. Indragiri Hilir	278,548	35	278,582
4	Kab. Indragiri Hulu	281,236	35	281,271
5	Kab. Kampar.	625,032	35	625,067
6	Kab. Kuantan Singingi	278,548	35	278,582
7	Kab. Pelalawan	284,762	35	284,797
8	Kab. Rokan Hilir	974,222	35	974,257
9	Kab. Rokan Hulu	290,100	35	290,135
10	Kab. Siak	979,036	35	979,070
11	Kota Dumai	278,548	35	278,582
11	Kota Pekanbaru	278,548	415	278,963
	Total for Riau	8,356,426	1,038	8,357,464

Sources: writer's calculation.

Considering the location of oil resources, the expansion of current Bengkalis Regency to become three new autonomous regions will disadvantage the 'new' Bengkalis by significantly reduce the amount of shared oil revenue. Since the oil resources are not located in the 'new' Bengkalis, most shared oil revenues will go to Mandau while others for Meranti. However, the 'new' Bengkalis will still receive some amounts from equal distribution of revenue among non resource regions in Riau.

Interestingly, the comparison of table 2.9 and table 2.10 shows that the expansion of Bengkalis to become three new regions increases the total amount of shared oil revenue for them from Rp. 1.612 trillion to Rp. 2.137 trillion. The calculation shows that the expansion of Bengkalis into three new regions benefit them with additional

revenue of Rp. 0.525 trillion. However, additional revenue for them is at cost of other municipalities) regencies in Riau. Nevertheless, this is an interesting finding which confirms that the shared revenue formula is an incentive for the proposal of regional expansions.

CONCLUSION

Bengkalis Regency is a one of the regencies which has been expanded several times since 1999. Now, there is a proposal for the expansion of the region which initiated by a group of local society in a particular area. The expansion of current Bengkalis Regency to become three new autonomous regions will disadvantage the 'new' Bengkalis by significantly reduce the amount of shared oil revenue. Since the oil resources are not located in the 'new' Bengkalis, most shared oil revenues will go to Mandau while others for Meranti.

However, using the data in 2007, a simulation shows that the total amount of shared revenue received by those three candidates of new regencies is much higher than the total amount received by one Bengkalis. The 'new' Bengkalis will still receive some amounts from equal distribution of revenue among non resource regions in Riau. Therefore, the expansion of Bengkalis into three new regions benefit all of them with additional revenue at cost of other municipalities/regencies in Riau. This is an interesting finding which shows an incentive for the regional expansions in Indonesia.

REFERENCES

- Devas, Nick (1989), 'Local Government Finance in Indonesia: An Overview, Chapter 1 in Devas et al., *Financing Local Government in Indonesia*, Monographs in International Studies, South East Asia Series No. 84, Ohio University.
- Devas, Nick; Binder, Brian; Booth, Anne; Davey, Kenneth & Kelly, Roy (1989), Financing Local Government in Indonesia, Monographs in International Studies, South East Asia Series No. 84, Ohio University.
- Handra, Hefrizal (2005), 'A Study of Indonesia's Fiscal Equalisation Mechanisms In the Early Stages of Decentralisation', *Ph.D Thesis*, Faculty of Social Science, Flinders University of South Australia.

Hill, Hal (2000), Intra-Country Regional Disparities, Paper for presentation at the second Asian Development Forum Singapore 6-8 June 2000.

Kadjatmiko (2000), Kebijakan Perimbangan Keuangan Antara Pemerintah Pusat dan Daerah, Direktorat Jenderal Perimbangan Keuangan Pusat dan Daerah,

Unpublished Paper, Dep. Keuangan, RI, Jakarta.

Lewis, Blane D. (2003), Some Empirical Evidence on New Regional Taxes and Charges in Indonesia, A Paper found at Ministry of Finance's Official Sites: http://www.djpkpd.go.id/publikasi/apbd/regional_revenues.pdf, accessed by August 2003.

Shah, Anwar; Qureshi, Zia; Bagchi, Amaresh; Binder, Brian & Zou, Heng-fu (1994), Intergovernmental Fiscal Relations in Indonesia: Issues and Reform Options, World

Bank Discussion Papers No.239.