

The Paradox of 'Black Gold' (Coal)

Reflections on Environmentally Sound Development

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Introduction

The consequences of development have both a positive and negative impact on nature. It can be said that development and environmental sustainability are two conflicting, but inseparable currencies. Currently, development policies are solely oriented towards the improvement and development of the economy and as such, have become one of the primary drivers of environmental degradation.

Article 1 Paragraph 3, Law No. 32/2009 on Environmental Protection and Management:

Sustainable development shall be conscious and integrated efforts integrating environmental, social and economic aspects into a development strategy to assure the totality of environment as well as safety, capability, welfare, and living standards of the present and future generations.

Development patterns that are oriented towards and rely upon indicators of economic growth will eventually be caught in the natural resource exploitation cycle, in the bid to source revenue to finance governance and development programs, without taking into account efforts to reduce any damaging environmental effects. In this regard, the implementation of environmentally sound development and controlled use of natural resources constitute the main objectives of environmental management.

Economic Development Liable to Massive Exploitation

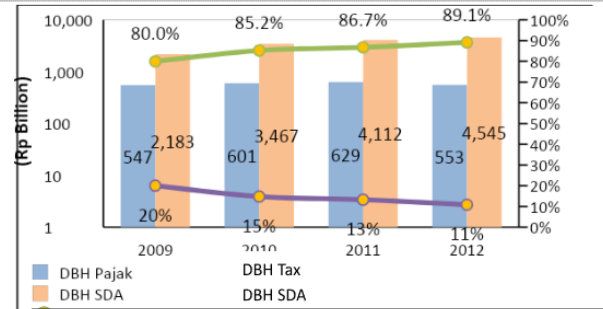
The district of Kutai Kartanegara (Kukar) has a diverse range of renewable and non-renewable natural resources. Petroleum, coal and natural gas are the prima donna commodities of Kukar. However, due to the economic value attached to the concept of 'cash and carry', often the use of renewable natural resources is displaced by the use of non-renewable natural resources.

No doubt, the processing and exploitation of oil/gas and non-oil/gas natural resources is the main source of revenue for Kukar's economy. In 2012, the Natural Resource Revenue-Sharing Fund (DBH SDA) accounted for as much as 89 per cent or Rp4.5 trillion of total DBH. Although the mining sector's contributions to Kukar's Regional Gross Domestic Product (PDRB) was very high, mining activities and excavation accounted for 67.8 per cent of Kukar's total PDRB excluding oil/gas – evidence of how economic development is extremely reliant on mining activities.

Table 1.1 PDRB 2012 Based on Non Oil/Gas Businesses (Rp Million)

Sector	2011	2012
Agriculture	7.649.525	8.518.245
Mining and Excavation	34.340.141	44.540.752
Manufacturing Industry	1475.424	1.532.875
Electricity, Gas and Drinking Water	59.684	75.474
Development and Construction	3.585.481	4.275.155
Trade, Restaurants and Hotels	3.381.785	3.726.334
Transport and Communication	477.593	546.457
Finance, Real Estate and Corporate Services	459.479	550.534
Services	1.807.073	1.969.746
PDRB Non-Oil/Gas	53.236.185	65.735.572

Diagram 1.1 DBH SDA Revenue vs DBH Tax Kutai Kartanegara 2009-2012



The high economic value of coal mining has encouraged massive exploitation in the Kukar district. Coal production has been boosted every year, in order to meet market demand. In 2012, the capacity of coal production increased to reach up to 76.52 million tonnes, although around 88 per cent or 67.34 million tonnes of total production was earmarked for export.

Kukar policies tend to be friendly towards coal investment, as illustrated by Kukar's rank as the district with the largest number of Mining Business Licenses (IUP) in the province of East Kalimantan. The number of IUPs issued up until 2012 totalled 430, covering a mining area of 627.617,63 hectares. Based on data from Kukar's Department of Mining in 2013, the number of IUPs increased to 442 over an area of 661.216,40 hectares. When we compare mining concessions with the total area of Kukar (2.726.310 hectares), coal mining areas amount to 24 per cent of Kukar's total area

Recapitulation of Mining Business Licenses (IUP) in Each District and City December 2012

City	IUP Exploration Number and Area	IUP Production Number and Area	Total per District/City Number and Area
Balikpapan	-	-	-
Berau	73 IUP / 224.651.90 ha	19 IUP / 56.374.83 ha	92 IUP / 281.026.73 ha
Bontang	-	-	-
Bulungan	148 IUP / 655.141.00 ha	4 IUP / 9.137.00 ha	152 IUP / 664.278.00 ha
Kubar	217 IUP / 1.211.836.00 ha	50 IUP / 233.461.00 ha	267 IUP / 1.445.297.00 ha
Kutim	145 IUP / 1.183.867.00 ha	9 IUP / 63.286.02 ha	154 IUP / 1.247.153.02 ha
Kukar	201 IUP / 423.976.70 ha	229 IUP / 203.640.93 ha	430 IUP / 627.617.63 ha
Malinau	31 IUP / 556.935.00 ha	6 IUP / 17.659.00 ha	37 IUP / 574.594.00 ha
Paser	28 IUP / 85.707.04 ha	3 IUP / 4.281.00 ha	31 IUP / 89.988.04 ha
PPU	39 IUP / 97.033.99 ha	30 IUP / 26.166.21 ha	79 IUP / 123.200.19 ha
Samarinda	121 IUP / 212.074.48 ha	39 IUP / 48.348.12 ha	160 IUP / 260.422.60 ha
Tana Tidung	5 IUP / 860.68 ha	56 IUP / 26.303.90 ha	61 IUP / 27.164.58 ha
Tarakan	21 IUP / 58.924.00 ha	2 IUP / 6.900.00 ha	23 IUP / 65.284.00 ha
Total	1,029 IUP / 4.711.025.79 ha	459 IUP / 699.639.01 ha	1,488 IUP / 5.410.664.80 ha

The high number of IUPs issued demonstrates the local government's neglect of the implementation of environmentally sound development, as it tends to issue Mining Business Licenses without maximising the supervision, monitoring and control of IUP distribution.

Kukar Caught up in Natural Disasters

Coal mining activities have the power to incite huge environmental change. Massive development can cause landscape change due to the creation of excavation pits, giving rise to deforestation and environmental degradation. As is the case in Kukar, massive coal mining activities have caused a range of natural disasters due to landscape change.

Table 1.2.

Location	Form of Damage
Kelurahan Loa Ipuh, Maluhu dan Jahab	500 hectares of farmer groups' rice fields damaged
Kecamatan Samboja	Flash floods
Kelurahan Dongang, Kecamatan Muara Jawa	Landslides, villages evacuated
Village of Mulawarman, Kecamatan Tenggara Seberang	Dust pollution, groundwater muddied, groundwater sources affected by drought, villages evacuated
Kecamatan sanga-sanga	Landslides, roads collapsed
Kelurahan Sangasanga Muara	Roads collapsed
Village of Sebulu, Kecamatan Sebulu	Mining waste flooded water sources

The above table is only a brief glimpse of the environmental problems that have emerged as a result of coal mining activities in Kukar. However, it's been said that coal mining activities provide high economic benefits, resulting in the local government actively issuing IUPs with the expectation of increasing levels of prosperity and development. Apparently, this expectation is based on data sourced from the Ministry for Environment concerning survey results from nine districts and cities in Indonesia, which succeeded in overturning the local government's previous beliefs on mining.

The distribution of IUPs for coal mining are said to have been driving the local economy and generating huge benefits, which is supposedly meant to demonstrate the value and benefits of an economy in minus. In Kukar, the 'benefits' from coal mining have resulted in an estimated minus of Rp581.4 trillion. As such, coal mining activities have become the paradox of Kukar, because the ecological damage incurred is far greater and not even remotely comparable with the benefits obtained from mining.

'Pseudo' Environmental Development Policies

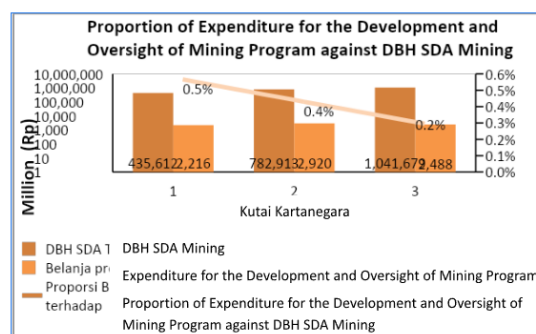
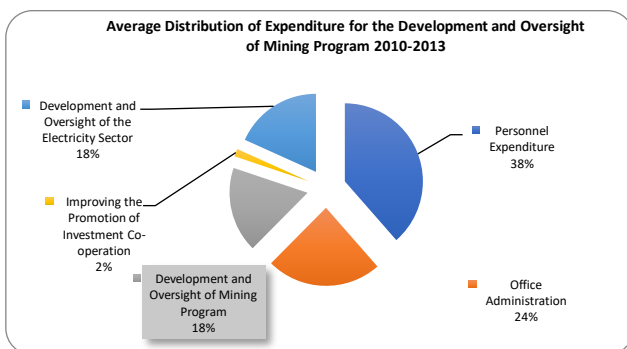
In the policies of RPJMD 2011-2015, the local government of Kukar tried to show their concern towards the importance of environmentally sound development, as demonstrated in its sixth mission statement; "to establish the implementation of environmentally sound development and natural resource preservation".

In the sixth mission, a number of priority programs are established including; (1) controlling pollution and environmental destruction; (2) performance development of waste management programs; (3) rehabilitation and restoration of natural resource reserves; (4) development and oversight of mining; (5) monitoring and control of community activities with the potential to destroy the environment.

In light of the above priority programs, the local government already had a number of initiatives aimed at ensuring the sustainability of environmental rehabilitation, and the development and oversight of mining. For example, the local government of Kukar had issued Regulation No. 2/2013 on the Management of Mineral and Coal Mining, which regulates mining activities included in the implementation of the development and oversight of mining program.

However, the commitment hasn't been reflected in budget accessibility. The proportion of expenditure for the development and oversight of mining program is grossly disproportionate with the amount of DBH-SDA Mining

received. In 2012, only 0.2 per cent or around Rp2.488 billion was realised, whilst DBH-SDA Mining amounted to Rp1,041 trillion. Furthermore, from 2010-2013, the Department of Mining in Kukar only allocated an average of 18 per cent or around Rp3,369 billion for the development and oversight of mining program, based on its average total expenditure of Rp19 billion. As such, it's impossible to compare revenue sourced from the mining sector with efforts to oversee and develop mining activities.



Vision The realisation of a Kutai Kartunegara society that's fair and prosperous.

Mission

- To improve governance by focusing on motivating and monitoring the implementation of good governance.
- To improve the quality and competitiveness of human resources, to be faithful and devoted to God Almighty.
- To grow economic centres and develop community enterprises whilst maintaining the current investment climate in terms of employment generation.
- To increase revenue sources and the potential development and competitiveness of agribusiness, industry and tourism.
- To improve the distribution of infrastructure development, in order to achieve public service facilities of an appropriately quality and quantity.
- To establish the implementation of environmentally sound development and natural resource preservation.
- To increase the role and participation of women in various aspects of life.

With budget expenditure for the development and oversight of mining program averaging Rp3,369 billion from 2010-2013, the unit cost of the program per coal mining area can be assumed to be Rp28.742,53/ha. However, the lack of a substantial budget allocation for the program is not in balance with the extent of mining areas to be monitored and as such, has the potential to weaken monitoring efforts.

In addition to impartial budget allocations, another important factor in the implementation of the development and oversight of mining program is mining inspectors. Mining inspectors are responsible for ensuring the compliance of IUP holders with their obligation to undertake environmental protection, as part of the effort to maintain environmental sustainability and suppress any negative impacts on the environment that result from mining activities.

Currently, Kukar has around 12-14 mining inspectors, of which only five are certified. Increasing the quality of natural resource/mining inspectors is very important, as their duty and responsibility lies in the development and oversight of mining activities. As such, the certification of mining inspectors is an absolute must.

The number of licenses and areas to be monitored also ought to be considered, so that the development and oversight of mining can be optimised. Furthermore, the introduction of mining inspectors needs to account for the number of licenses and the extent of mining areas to be monitored. Assuming there are 12 mining inspectors, each person will then be responsible for monitoring ±37 IUPs over an area of 55.101,37 ha. However, the ideal ratio is one mining inspector to 10 companies (based on the estimation that one company = 1 IUP).

Naturally, if the extent of mining areas to be monitored is too large, the performance of mining inspectors won't be maximised. The unevenness of the number of mining inspectors with the number of IUPs and mining areas to



be monitored can be used as a benchmark, indicating that the local government hasn't balanced its policies around the distribution of IUPs against ensuring the compliance of license holders with environmental sustainability. Such lack of oversight towards coal mining activities is sure to affect the further erosion of environmental conditions.

Conclusion

The handling of coal mining activities should be done appropriately, because coal is a non-renewable natural resource that will eventually run out. As seen from the brief glimpse above of the reality of coal mining activities, coal mining has the power to induce enormous environmental change, resulting in environmental destruction caused by; (1) the distribution of IUPs without any oversight; (2) weak monitoring and supervision of mining activities; (3) lack of clarification around the monitoring of the post-mining reclamation process; (4) lack of mining inspectors; and (5) development policies solely oriented towards economic indicators. What is most needed is careful planning from the initial license distribution stage, up until the post-mining reclamation stage. The local government must attempt to fully implement environmentally sound development, especially in terms of the monitoring and supervision of mining activities currently being conducted in Kukar, in order to resolve problems that have emerged and prevent a potentially serious ecological disaster.

Recommendations

1. The local government should start to think about the concept of energy reserves, so that natural resources can be enjoyed by future generations, by:
 - Massively reducing the amount of coal exploitation;
 - Revitalising the mining sector's licenses, especially coal mining licenses;
 - Conducting periodic evaluations of coal mining licenses.
2. Raise environmental management standards for miners by:
 - Increasing the number and capacity of natural resource and mining inspectors through the certification of mining inspectors;
 - Increasing budget allocations for the development and oversight of mining activities, and mining inspectors;
 - Increasing supervision of the post-mining reclamation processes;
 - Including the planned closure of mining pits in local development plans.