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POLICY ON INDUSTRIAL MINERAL RESOURCE MANAGEMENT IN FRAMEWORK OF ELIMINATING DEPENDENCE ON IMPORT

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ABSTRACT

Indonesia is one of the countries in the world that has abundant industrial mineral resource. Known as an exporter, Indonesia in fact also becomes an importer of various industrial minerals in a big and increasing amount from year to year. This is an apprehensive condition considering the negative impact given to the economy due to the absorption of the country's foreign exchange. It also causes higher dependence on imported material and decreasing job opportunity for the people. Actually, industrial mineral mining does not need high technology and big investment; it is also of low risk.

The problem is that the import rate is stagnantly high and it is caused especially by factors of unwise policy and conflict of interest from decision makers. The problem solution has to be derived around the issue. The issuance of Law No. 4 Year 2009 on Mineral and Coal Mining is expected to become the critical moment for reforming the policy and related regulations.

Keywords: industrial mineral, import, policy, Law No.4 Year 2009

INTRODUCTION

Industrial mineral is a non-metallic mineral vastly used in manufacture and construction industries as both main raw material and supplement. Several major manufacture industries as industrial mineral costumers are chemical industry, fertilizer, cement feeding, pulp and paper, ceramics, glass, vegetable oil, natural oil, based metal, etc. In construction sector, industrial mineral is widely used for road, bridge, and building constructions.

Known as having abundant industrial mineral resource, Indonesia is in fact an importer of various industrial minerals in steadily big amount. The high rate of import makes domestic customers are deeply dependent upon imported mineral. It also causes spending of the country's foreign exchange and loses of job opportunity for the people. The problem is why the import rate is always high? What can be done to suppress the import rate and to develop the national industrial mineral mining industry to meet local needs, and if possible, for export.

This article tries to untie the 'tangled threat' of the Indonesian industrial mineral industry in terms of policy and face of the mining industry and its costumers, so that the problems can be identified and the solution can be sought.

METHODOLOGY

This study is conducted through collecting primary and secondary data . Primary data are collected from survey in the field through questionnaire and interview. Secondary data are obtained from various institutions at central level, such as Central Board of Statistics, Ministry of Industry, and Ministry of Trade; and regional levels, such as Office of Mining and Energy, and Office of Industry. The collected data are processed and analyzed using descriptive approach.

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DEVELOPMENT OF INDUSTRIAL MINERAL IN INDONESIA

Indonesia has abundant industrial mineral resources in terms of amount of reserve and types, although some locations are scattered in many areas in small amount. Limestone, bentonite, dolomite, feldspar, granite, kaolin, marble, quartz sand, and zeolite are types of industrial mineral that are vastly located all over Indonesia (Table 1). These types of industrial mineral have been exploited for quite long time and the products have been utilized by domestic manufacturing industry and exported to other countries.

Table 1. Various industrial mineral resources in Indonesia

No.	Industrial Mineral	Classification (000 Tons)			
		Measured	Indicated	Inferred	Hypothetic
1.	Limestone	5,727.76	396,934.18	1,876,893.64	10,269,137.40
2.	Granite	-	17,852.51	-	10,692,721.25
3.	Marble	84.5	117.88	-	7,141,025.74
4.	Quartz sand	73,055.71	12,039.19	17,122.76	4,384,277.50
5.	Dolomite	101.22	151.84	-	1,197,444.32
6.	Kaolin	498,758.68	9,591.21	39,969.66	178,525.89
7.	Bentonite	12,226.30	130,988.00	78,138.00	194,082.45
8.	Feldspar	4.76	2.00	0.27	2,617.68
9.	Zeolite	27,175.20	-	125,243.00	54,000.00

Source: Arifin *et. al,* (2004)

The national development plan from the new order era through the reform era formed a golden era of industrial mineral operation. Production of various industrial minerals showed an increasing trend-although a bit fluctuative-in line with the developing manufacturing industry (and construction) as the main costumers. In the last 5 year period (2003-2007), the development of industrial mineral production indicates varied pattern; some are consistently increasing, like limestone, bentonite, dolomite, feldspar, kaolin, quartz sand, and zeolite; some are fluctuative with increasing trend, like sulphur, granite, and marble. Ironically, in the middle of the increasing production, import of industrial mineral of the same types is experiencing a significant increase, although the export rate is also significant in amount (Table 2).

Table 2 clearly shows that there is correlation between the increase of production, consumption, export, and import. If the increased consumption is accompanied by increased production-as the resource is located in Indonesia-the economic law has applied: high consumption is followed by even higher production. What strange here is that the export and import volume shows the same amount for the same types of exported and imported industrial mineral. This condition unavoidably invokes a question: what is happening to the Indonesian industrial mineral operation? Is this condition reflecting misconduct in implementing the policy, a consequence of free-trade agreement among countries, a difference in specifying the types of imported and exported minerals, or simply an error in data collecting and processing.

Start From the Policy

Industrial mineral, referring to the Government Decree No. 27 Year 1980 on Mineral Classification (Anonym, 2004), covers all Type C minerals and some part of Type B minerals. Frequently mentioned as the Indonesian mining future, industrial mineral has been given less attention by the (central) government. It is probably due to the fact that management of industrial mineral operation has been transferred to the government at local level, since the late 80s through the Government Decree No 37 Year 1986 stipulating transfer of part of authority on mining from central government to local government (Anonym, 2004). It means the responsibility is now on the regional government, i.e. the Office of Mining and Energy in each region (provincial and regency/city level). There is also assumption that the central government perceives industrial mineral as insignificantly contributive to the national economy.

Table 2. Development of Indonesian industrial mineral (2003-2007)

Industrial Mineral		Unit	2003	2004	2005	2006*)	2007*)
1. Limestone							
	Production	Thousand Ton	6,591.7	6,991.7	7,327.20	7,959.20	8,645.60
	Consumption	Thousand Ton	6,610.8	6,972.7	7,293.40	7,880.60	8,515.00
	Import	Thousand Ton	42.3	16.3	16.8	n.a	n.a
	Export	Thousand Ton	23.2	35.3	50.6	66.7	88
2. Sulphur							
	Production	Ton	171,095.4	77,472.8	134,627.60	135,973.90	137,333.60
	Consumption	Ton	475,585.9	495,261.2	508,880.90	498,583.10	488,493.60
	Import	Ton	286.489,4	419.092,0	374.819,40	350.841,30	242.175,00
	Export	Ton	59,831.9	1,332.4	n.a	n.a	n.a
3. Bentonite							
	Production	Ton	124,121.8	156,173 .2	137,624.73	144,406.01	148,016.20
	Consumption	Ton	113,564.0	123,285.0	133,838.00	140,562.00	147,623.80
	Import	Ton	22,791.3	48,930.1	68,506.70	91,928.35	65,121.39
	Export	Ton	72,512.8	80,929.3	89,645.70	61,696.01	93,551.20
4. Dolomite							
	Production	Ton	252,321.1	273,315.5	280,310.00	287,483.45	292,083.19
	Consumption	Ton	170,510.0	183,951.0	194,310.00	199,282.62	204,382.49
	Import	Ton	4,307.6	5,958.4	6,168.30	4,811.30	4,427.90
	Export	Ton	879.8	61.7	12,296.60	13,600.00	14,955.30
5. Feldspar							
	Production	Ton	1,600.2	1,504.6	19,806.70	20,208.80	20,619.00
	Consumption	Ton	145,344.2	140,698.5	152,742.30	155,843.00	159,006.60
	Import	Ton	186,479.3	181,103.2	165,868.00	201,454.54	190,798.52
	Export	Ton	1,095.7	171.1	n.a	2,385.20	2,649.00
6. Granite							
	Production	Thousand Ton	8,878.2	8,624.3	8,106.00	8,148.10	8,190.50
	Consumption	Thousand Ton	631.7	647.5	663.7	673.3	683.1
	Import	Thousand Ton	25.9	25.8	27.9	29.7	20.5
	Export	Thousand Ton	8,272.4	8,002.6	7,470.20	7,502.60	7,535.20
7. Kaolin							
	Production	Ton	218,737.2	217,170.4	222,672.90	241,312.80	257,471.10
	Consumption	Ton	243,167.0	264,956.4	296,207.90	314,595.00	334,123.50
	Import	Ton	98,877.9	135,291.6	141,482.00	160,200.02	131,508.79
	Export	Ton	73,806.6	72,686.5	67,947.00	71,071.90	74,340.50
8. Marble							
	Production	Thousand Ton	208.39	214.07	217.17	219.30	n.a
	Consumption	Thousand Ton	208.48	214.06	215.23	219.52	n.a
	Import	Thousand Ton	49.94	64.55	52.18	59.85	41.85
	Export	Thousand Ton	48.66	74.58	99.27	127.29	n.a
9. Quartz sand							
	Production	Thousand Ton	2,601.1	2,704.7	2,686.10	2,740.70	2,796.30
	Consumption	Thousand Ton	2,534.3	2,465.6	2,590.70	2,643.30	2,696.90
	Import	Thousand Ton	76.3	60.5	68	69	44.51
	Export	Thousand Ton	143.1	299.0	163.5	166.4	169.3
10. Zeolite							
	Production	Ton	n.a	n.a	29,887.00	31,793.50	33,821.50
	Consumption	Ton	30,166.9	28,103.9	29,887.00	31,052.60	32,263.70
	Import	Ton	n.a	n.a	n.a	n.a	n.a
	Export	Ton	n.a	n.a	n.a	740.8	1,557.80

Source: Miswanto *et. al,* (2006); n.a: not available; *) prediction

A problem emerges as numbers of regional government enforce industrial mineral as one of income resources-in terms of increasing their local revenue. It will eventually give negative impact on the development of industrial mineral mining sector in the future. With this inappropriate intention from those regional governments, good mining practices will be difficult to apply and there will be no effort to develop industrial mineral as a crucial pillar of regional economic growth. Furthermore, there will no long-term plan adopted for improvement of this sector, except only for revenue generation.

The impact can clearly be predicted: at one side, local income will increase, but at the other side, huge negative impact occurs especially on the environment that is badly degraded. The change from centralization to decentralization (regional autonomy) era has not given a significant positive impact, creating a stagnant condition for the industrial mineral mining. By the name of regional autonomy, each local government issues various regional regulations with the ultimate objective to increase the regional income, in the forms of taxes and retributions.

In this situation, apparently it will be impossible to expect the local governments own an accurate data on industrial mineral mining in their own areas. Most of regional governments overlook the importance of conducting a survey for data collection. The consequence is that the data they own (if there is any) is minimal and inadequate. While data as a fundamental factor in doing the planning is not owned by the executive institution, what kind of result can be expected out of this work?

It can be concluded that the industrial mineral mining has been inappropriately managed. As a non-renewable resource, various types of industrial mineral will be vanished due to continuous exploitation. The implication of this condition will be the decline of soil fertility, flood incident in rainy season and draught in hot season, water pools or puddles that cause diseases, etc.

Policy in the downstream sector, like industry and trade, apparently does not significantly give value added to the industrial mineral commodity. Export of industrial mineral in the form of raw material keeps going on, so as the import in the form of end product/half-end product. This fact provokes a suspicion that the exported and imported materials are the same product. Indonesia exports raw material that is processed in other countries and is imported back to Indonesia in foreign brand.

Profile of Mining Industry and Industrial Mineral Consumers

a. Mining Industry

Different from metallic mineral and energy, industrial mineral can be explored by using simple technology with small investment, and simple skill. Supported by the existing resources, high demand, and promising profit and fast return, industrial mineral is vastly explored. The business players come from various backgrounds, from small-scale to big-scale entrepreneurs, from low-educated and intellectual players, from licensed to unlicensed companies. In this context, it has to be admitted that mining activity has provided work and business opportunity to certain community groups; it means it has also contributed to eliminate unemployment. However, the disparity of the entrepreneur status brings consequences in many factors, from the control to the product (quality, quantity, and continuity) to the accessibility of capital and market. For small companies whose main activity is not on mining, the operation is run with minimum facilities with no guarantee on sustainability. Moreover, limited knowledge and education do not give enough space for them to operate as they are dominated by big entrepreneurs or middle-trader. For big and strong investors, on the other side, relatively small and scattered resource of industrial mineral make it difficult for them to build big scale mining operation. This unfortunate condition is made worse by the low product price, which also means it is vulnerable to the factor of transportation distance-mining location is not always closed to the end-users. All this condition leads to the consequence of no sustainable supply for customers; it invokes people to have preference on imported product.

b. Costumers

In general, domestic manufacturing industry is mostly big scale and modern companies; they are national and international companies. Thus, quality, quantity, and continuity factors of industrial mineral resource become the main condition for the industry to sustain. To ensure sustainability in their production process, lots of industries are pushed to utilize imported industrial mineral, although the same product has been produced domestically. The utilization of imported product eventually results in rocketing import rate when the industry increases their production capacity. However, small and medium scale industry ap-

parently utilize local product of industrial mineral. The reasons are because they have limited financial capability in purchasing imported mineral, and because the market does not require high quality product. In some cases, there are some industries that are fully dependent upon imported industrial mineral due to limited domestic supply. They are, among others, phosphate for fertilizer industry, natrium bentonite for oil drilling, and kaolin in specific quality for ceramics industry.

RESULTS AND DISCUSSION

Problematic condition hampering the industrial mineral sector is a quite complicated matter, although it is not impossible to settle. The important thing to solve this problem is mainly based on the willingness of all related stakeholders, especially the government as the central figure, to enforce correction.

From Policy to Policy

Law No. 11 Year 1967 on the Main Guideline of Mining, as the legal umbrella on non-oil and gas mining sector, does not oblige business players to export mineral, including industrial mineral, in the processed form. This condition is deliberately created since when the Law was issued, Indonesian was in the situation of inviting investors to explore its industrial mineral resources and as the anticipation of fulfilling domestic demand due to the growing national development. The result is quite satisfying, mining production of various industries growingly increases to fulfil domestic market and to be exported (although mostly in the form of raw material). Ironically, in line with the increasing export volume, imported material as half-processed or end product is never decreasing.

This environment that is strategically dynamic has made Indonesia changes its framework of managing the mining sector, including industrial mineral mining. It is implemented through, among others, policy that prohibits export of all forms of raw material; following the substitution of Law No 11 Year 1967 by Law No 4 year 2009 on Mineral and Coal Mining. It is stated in Article 95 Letter c stipulating the obligation of company to improve the value added of domestic mineral and/or coal before being exported (Anonym, 2009). This regulation obviously gives fresh air to the development of processing industry within the country that will be followed with the multiplier effect, like opening job and business opportunity. It needs to be highlighted, though, that industrial mineral industry has no problem in terms of technology application. Various types of processing technology are available in the market of both local and foreign made. Indonesian experts have also been able to design and engineer the processing technology based on the characteristics of industrial mineral in Indonesia.

The prohibition of exporting raw material has not automatically changed the current condition, to make export rate increases and import rate decreases. There are several other influencing factors, especially relating to the issue of trust and condition or trade agreement with foreign buyers/sellers. Efforts are still needed to place the Indonesian industrial mineral as host in its own country and to penetrate the export market with international quality. However, with this policy, the least expectation is that the continuingly high rate of export can be pressed into minimal level.

In the context of creating a conducive climate, the government must have done comprehensive evaluation on local regulations in various regions. It needs to urgently be conducted considering that lots of regional regulations are contradictory with the higher level regulations. Referring to the recapitulation of evaluation on local regulations conducted by the Ministry of Finance up to end of 2006, there are at least 316 regional regulations issued on general mining sub-sector (mineral and coal). The result indicates 25 regional regulations are cancelled, 131 are approved and can be implemented, 159 are in the process of identification evaluation, and 1 regional regulation needs to be revised (Dani *et al*, 2006).

Changing the Profile of Stakeholders in Industrial Mineral Sector

The change of regulation due to the issuance of Law No. 4 Year 2009 should become the moment for improvement of any weakness points in the industrial mineral production process, especially in the issues of quality, quantity, and continuity. It is the time for restructuring all aspects, from the management handled by the government institutions, exploration by the companies (individual or national-private) to the greater community groups. In this case, strengthening the government institution, especially local government including Office of Mining and Energy, becomes the central figure of the improvement.

The initial stage to implement this is by changing the perception of regions on the industrial mineral mining. It is the time for all Offices of Mining and Energy to start treating the industrial mineral mining appropriately. 'Take and give' method should be applied; out of the taxes and retribution taken out of the industrial mineral mining activity, there must be some fund provided, in return, for the mineral development, improvement of mining system, as well as for promoting and inviting more investment. At central level, the government must act proactively in carrying out their mandate, as stated in the regulation, to adopt more rigorous stipulations in formulating the procedure, criteria, standard, and code of conduct, providing also "reward and punishment" system.

Changes expected from the entrepreneur side are improvement of their capability in well-planned and well-managed mining operation, as well as in producing standardized products that meet customers' requirement, especially in terms of quality, quantity, and continuity. This effort will need high commitment from the entrepreneurs to make the change happen, also supports from the Office of Mining and Energy, other related government institutions, and banking sector.

From the facts, improvement of human resource appears to be the main pre-condition for industrial mineral mining to go on the targeted direction, namely, to be able to suppress the import rate-and furthermore maybe, to be the source of foreign exchange for the country. The industrial mineral mining must also be capable of eliminating environmental disaster and taking role as a mean to speed up the people's welfare achievement. In this context is where research and development centre, and education and training institution need to cooperate with the Office of Mining and Energy, other related government institutions, and banking sector to actively achieve the obsession.

CONCLUSION AND SUGGESTION

From the explanation above, conclusion can be derived and some inputs can be proposed:

Conclusions

a. The high export rate of various industrial minerals is caused by complicated domestic problems due to lack of coordination to seek improvement among related stakeholders, like the government (at central and regional levels) and business players in upstream (mining) and downstream (trade) industries. Each party merely searches for their own way out. In addition to that, policy on industrial mineral sector is not supportive to the improvement by ignoring the fact that import is still increasing in amount from year to year. It has to be considered, though, that there is a bilateral or multilateral political agreement that gives an obligation for Indonesia to import product that can actually be produced domestically.

b. Problematic condition hampered the industrial mineral sector has to be solved comprehensively by involving all related institutions in all aspects like operation, industry, trade, and policy making.

c. In general, solution for problem faced by the industrial mineral industry, cover among others, change of perception of the local government (i.e. Office of Mining and Energy) in treating the mining operation as not merely for increasing the regional income; consequently implement the Law No 4 Year 2009 especially related to the obligation to process mining result domestically before being exported; cancel problematic regional regulations that are not in line with the higher level regulations; and improve capacity of government officials at regions and business players.

Suggestions

a. Considering the existence of lots of association of industrial mineral mining company, it will be better if they unite in one single coordinative forum. The forum will be strength for them in dealing with problems and in creating a bargaining position to coordinate with the government in looking for problem solving.

b. The government needs to speed up the formulation of Government Decree as the implementation of Law No 4 Year 2009. The issuance of 2 government decrees at the beginning of 2010-from the target of 4, should be followed by other decrees and the Ministerial Decree of Energy and Mineral Resources, as well as Decree of Director General of Mineral, Coal and Geothermal. All of these are expected to stimulate the development and improvement of industrial mineral in Indonesia.

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