

## MINING DEVELOPMENT AND THE NEED OF PRESERVING THE ENVIRONMENT

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### ABSTRAK

Artikel ini membicarakan tentang konsep hak negara dalam mengeksploitasi sumber alam dan dampak dari kegiatan itu terhadap lingkungan hidup. Ditinjau dari pengaturan tentang hukum pertambangan di Indonesia dapat disimpulkan bahwa sejak lama telah terdapat kesadaran Pemerintah Indonesia untuk memberikan perlindungan terhadap lingkungan dalam rangka usaha penambangan sumber alam tersebut. Sekalipun demikian, mengingat masalah lingkungan dewasa ini telah menjadi isu internasional, kiranya Indonesia perlu memperbaiki kinerjanya dalam menjaga kelestarian lingkungan hidupnya, khususnya dalam kaitan dengan kegiatan penambangan sumber alam ini.

### I. INTRODUCTION

A mining industry is essential in a modern society. It is not only essential in providing material needed by manufacturers but also beneficial in providing opportunities for training new skills and technologies. For any government, mining is an important activity as a contributor to the nation's economy and foreign exchange.

For Indonesia, the revenue from mining is very important for the development of the country. The experience during the 1970's has proven that mining can be relied upon by the government as a source of income to enhance the prosperity of the people and State's economy. Until the present time mining is still considered an important source of income, although the revenue from it has reduced significantly since mid 1980's.

Mining involves the extraction of material from the ground, and this necessarily causes some disturbances to the land surface. The amount of disturbance depends on whether the mining is an underground or a surface operation and on the scale and type of the operation. In the past, there was little emphasis on the way disturbed areas were treated after mining ceased, and little remedial work occurred during mining.

The past experience and increasing public concerns have resulted in changes in

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government policies, which have increased environmental protection. This means that more attention is being paid to the need to manage the environment whether during the mining is conducted or after mining has ceased.

This paper will look briefly at the historical background of the notion that the exploitation of mineral resources is considered a right of States, and then look at how the need of protecting the environment affected mining development in Indonesia.

## **II. NATURAL RESOURCES EXPLOITATION AS A RIGHT OF STATES**

Traditionally, exploitation of natural resources was a matter exclusively within the domestic jurisdiction of the States. The belief started in 1952 when United Nations General Assembly (UNGA) adapted a Resolution 523 (VI) on January 12, 1952 on "Integrated Economic Development and Trade Agreements". It reflected General Assembly's concern for the economic development of underdeveloped countries, and it expressed that the underdeveloped countries have the right to determine freely the use of their natural resources and that they must utilize such resources in order to be in a better position to further the realization of their plans of economic development in accordance with their national interests. The resolution omitted any mention of the underdeveloped states to honor international obligations or international law.

The 7th General Assembly on December 21, 1952, UNGA Resolution 626 (VII) known as "Nationalization Resolution", even though the exact term nationalization was omitted from its text, further stated that "the right of people freely to use the natural wealth and resources is inherent in their sovereignty and is in accordance with the purpose of the United Nations".

The principle enunciated above was designed to protect States from any outside interference to their economic sovereignty and also to prevent weak governments from compromising a country's future by granting concessions in the economic sphere. However, the resolution could hardly be said to have created instant international customary law, as it was not unanimously adopted.

In 1962 the General Assembly adopted Resolution 1803 (XVII) of 14 December 1962 entitled "Declaration on Permanent Sovereignty Over Natural Resources". The resolution laid down the right to permanent sovereignty over natural resources as a principle of international law and giving guidelines for the exercise of this right. It was an authoritative affirmation of the inalienability of the right of states to exercise sovereignty over their natural resources and the reconciliation and adaptation of that sovereignty with

international law, justice and principle of international cooperation.

The concept of sovereignty over natural resources kept from surfacing in resolutions directed towards economics, but it persisted in another source i.e. human rights.

Article 1 para 2 of International Covenant on Economic, Social and Cultural Rights, Resolution 2200 A (XXI) of 16 December 1966 put forward the proposition, that: "All peoples may, for their own ends, freely dispose of their natural wealth and resources without any prejudice to obligations arising out of international economic cooperation, based upon the principle of mutual benefit and international law. In no case may a people be deprived of its means of subsistence on the grounds of any rights that may be claimed by other states".

Then, article 25 states that: "Nothing in the present Covenant shall be interpreted as impairing the inherent right of all peoples to enjoy and utilize fully and freely their natural wealth and resources".

This was the first time that permanent sovereignty over natural resources was included in a binding legal instrument.

### III. CONSTRAINT IN THE EXERCISE OF PERMANENT SOVEREIGNTY OVER NATURAL RESOURCES

The principle of permanent sovereignty over natural resources culminated in 1974 when a number of declarations and resolutions put limitations on the implementation of the right.

Article 30 of the Charter of Economic Rights and Duties of States (CERDS) and principle of the 1972 Declaration on The Human Environment (Stockholm Declaration) provide that "states have ... the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other states or of areas beyond the limits of national jurisdiction".

Customary international law required that nations be responsible for government controlled activities that cause damage to other nations. Direct damage to the property of another nation creates a duty to redress the injury. The principle is emanated from judicial decisions, treaties and conventions and State practice. The leading case on the subject is the Trail Smelter Arbitration.

Several principles in international law one of which the so-called "*Pacta Sunt Servanda*" indicate that exercise of permanent sovereignty over natural resources must

be in conformity with established principles of law. The doctrine of *pacta sunt servanda* states that an agreement between States must be respected. It is an absolute principle of the international legal system and just as in the case of treaties, customary rules are based on the consent of States and there is an implied agreement. Thus, States are bound to carry out in good faith the obligations they have assumed by treaty.

The principle of *pacta sunt servanda* has emerged as a limiting principle on the exercise of permanent sovereignty over natural resources by a State. International environmental law is now being developed to deal with a host of serious global environmental problems. It consists of treaties and numerous declarations of principles and resolutions. These may be seen as emerging customary principles binding on all States. Hence, States are bound to observe them in good faith and there is an implied duty on their part to cooperate to protect the environment.

#### IV. MINING AND ENVIRONMENT

This section will look at the impact of mining to the environment and the response of laws in Indonesia to this matter.

##### A. The Effect of Mining

The development of mining activities which comprises a wide range of activities from prospecting, extraction, and transporting to distribution and final consumption give rise to a very negative public perception which stems from uncertainties of the impacts of mining and the belief that it results in the destruction of the environment.

Mining, in particular modern large-scale opencast extraction, open large, gaping holes in mother earth. The physical damage created by such mining activities is often viewed as a conspicuous symbol of man's destruction of an intact natural environment.

Mines are developed only where the minerals are found. The location of mining facilities is not by free choice, nor conditioned by proximity of markets, but is subject to the imperatives of geology. Large scale mines are typically designed for a specific site, so environmental effects tend to be governed by site-specific factors (nature of land, plain, mountains, hills; location of rivers, access to sea, climate; transportation infrastructure; population; land use). The environmental effects of mining tend to increase both in geographical scope and intensity as the phases of mining advance:

- 1 *The exploration phase* produces mostly minor and quite localized effect, depends on the method used. For example the application of any drilling method might



result in higher environmental impact than using seismic method. However, the impact can be handled by relatively simple rules ensuring that no lasting danger or damage remains.

2. *The extraction phase* will usually involve more massive impacts. These will include erosion, sedimentation of rivers and the sea, decreasing of air quality caused by dust and noise, etc. However, the impacts can also be localized.
3. The main environmental damage generated by the mining industry is likely to be generated *at the metallurgical stage*, mainly smelting and refining. These processes create considerable air pollution, at times water pollution through discharge of process water, tailings and hazardous waste (residue from metallurgical processes).

One might recall that the environmental impact of mining is nothing new. It could be argued that the impact of metal smelting in historic times using mainly firewood for energy has been responsible for large-scale deforestation around mining areas.

## B. Regulatory Response

Environmental protection is not completely new to the Indonesian mining law. Matters of health and safety ("working environment") have been a matter of regulatory concern for decades. Direct impact of mining on land (subsidence) and noxious fume, dust and dangerous facilities have equally been subject of legislation for a long time.

Currently, there are several pieces of legislation that regulate the operations and environmental aspects of the Indonesian mining activities.

Act No. 11 of 1967 concerning Basic Provision on Mining was enacted at the time when Indonesia was facing huge task of trying to find solutions to poverty, ill health, illiteracy, hunger etc, but it has been aware of the need to conserve the environment.

Article 30 of the Act provides that "After completion of mining for minerals in any time, the holder of the relevant mining authorization is obliged to restore the land in such condition so as not to evoke any danger of disease or any other hazards to the people living in the surrounding of the mine".

The Act No. 11 of 1967 encourages the participation of foreign investors in the development of the country's mineral resources by permitting the Ministry of Mines

and Energy to enter into "Contract of Work (COW)" or in other form in accordance with the existing regulations.

The COW or other contract in general mining is a lengthy legal document that substitutes for regulations and requirements in many instances. It is approved by parliament. The contract spells out the contractor's right to search and explore for minerals in the contract area, to develop and mine any mineral deposit found in the mining area, to process, refine, store, transport, market sell or dispose of all product inside and outside of Indonesia.

Ever since the first generation of the contract up to now (the 5th generation), the term of environmental protection is always included. The contract requires that the contractor, in conducting the operations, "shall control waste or loss of natural resources, protect resources against unnecessary damage, and to prevent pollution and contamination of the environment, and be responsible for reasonable preservation of the natural environment within which contractor operates and especially for taking no acts which may unnecessarily and unreasonably block or limit the further development of the resources of the area".

It also requires the contractor "to include in the feasibility study for each mining operation an environmental impact study to analyze the potential impact of the operations on land, water, air, biological resources and human settlement, and outline measures which contractor intends to use to mitigate adverse impacts".

The most important regulation issued in 1982 was Act No. 4 on The Basic Provisions For the Management of the Living Environment. It is the principal legislation governing management of environment which contains a concept of a comprehensive environmental management in Indonesia.

Article 16 of the Act No. 4 of 1982 provides that: "Every plan which is considered likely to have a significant impact on the environment must be accompanied by an analysis of environmental impact, carried out according to government regulations."

Based on the above article, the Government Regulation No. 51 of 1993 concerning Environmental Impact Analysis was issued (which revoked Government Regulation No. 29 of 1986). The Regulation listed factors to be considered in the study as follows:

1. the number of people who are likely to be affected by the impacts;

2. the extent of the land area likely to be affected by the impact;
3. the duration of the impacts;
4. the intensity of the impacts;
5. the number of other environmental components affected by the impacts;
6. the cumulative character of the impacts;
7. the reversibility of the impacts.

The regulation states 9 operations or activities which do allegedly have a crucial impact over the environment:

1. alterations of the shape of the land and natural terrain;
2. the exploitation of natural resources, renewable as well as non-renewable;
3. any process and activity which could potentially bring about the waste, destruction and degradation of natural resources being exploited;
4. any process and activity which affects the socio-cultural environment;
5. any process and activity which could affect natural resource conservation areas and/or natural reserves;
6. the introduction of foreign species of plants, animal and microbes;
7. the production and application of biological materials;
8. the application of technology perceived to have a strong potential to affect the environment;
9. high risk activities and those which affect the defense and security of the State.

Hence, mining as an activity included in one of these categories must submit to the Office of Ministry of Mines and Energy an environmental impact analysis together with environmental management plans and environmental monitoring plans before conducting its operations. The Minister of Mines and Energy will issue a permit i.e the Mining Authorization for Exploitation provided that the environmental impact analysis has been evaluated by the commission formed under the Government Regulation No. 51 of 1993.

Besides, other related-environmental laws also put requirements that should be taken into account by the miner in conducting its activities. These are among others :

*Act No. 11 of 1974 on Water Management;*

1. Act No. 5 of 1990 on Conservation of Living Natural Resources and Its Ecosystem,
2. Act No. 24 of 1994 on Spatial Zoning;



3. Government Regulation No. 20 of 1990 on Control of Water Pollution;
4. Government Regulation No. 19 of 1994 on The Management of Hazardous and Toxic Waste.

As a consequence of the entry of the environmental laws into the mining licensing system, mining is no longer automatically assigned precedence over other land uses, and environmentally (or socially or culturally) important lands, such as wildlife and natural preservation areas, water protection, forest and national parks, are no longer made available for mining. In other words, mining has difficulty of winning the usage contest; at best, it would have to conform to very stringent and costly mitigation obligations.

## V. CONCLUDING REMARKS

International law is likely to circumscribe more closely the limits to national sovereignty through a number of its principles when transboundary effects – including global concerns – are at stake.

In exercising the right over natural resources, Indonesia has been aware of the need to preserve the environment. Mining law has for a long time provided provisions that show the government awareness to the environment, although some of them are set as matters of safety and health.

Indeed, international pressure on the environment affects virtually every industrial, including mining activity undertaken in Indonesia. As a result, the Act No. 4 of 1982 on Basic Provisions For the Management of the Living Environment and other related-environmental laws were enacted by the government. These regulations set strict requirements and obligations that must be taken into account by the Minister of Mines and Energy in granting a mining permit. They require miner to identify, assess and taken into account the environmental implications early on in the process of designing development project.

In facing this situation, therefore, laws must be applied very wisely so that they can keep supporting the development of mining without sacrificing the living environment. Environmentalists must be convinced that developments in environmental protection are taking place that indicate that Indonesia, if not following the US of other developed countries in every respect, is at least going in the same direction.



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