

Reconstructing the Development of Eco-Friendly Environment as the Green Constitution (Study of Tin Mining and Environmental Degradation in Bangka Belitung Islands)

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Abstract-Province of Bangka Belitung Island is one of Indonesia's regions that has the largest tin content in the world so that this region is one of the orogenese pathway that is a region of the world's most prosperous track. On its current development, tin mining has caused many issues such as the rampant practices of illegal mining in its land and sea, mining accidents, tin smuggling, conflicts of interest, social conflict, reclamation responsibility that are not optimally fulfilled like massive environmental damage in the middle of eco-friendly mining jargon that keeps on being campaigned. Therefore, tin management requires development reconstruction of eco-friendly environment as a green constitution trial. This paper examines many issues of tin mining that have occurred in Bangka Belitung Island, especially related to the environmental degradation as an implication of the tin mining process. Then this issue becomes one of bases in reconstructing development of eco-friendly environment as a green constitution trial. The results of the study show that tin mining activity in Bangka Belitung Island is an excavate soil activity to extract mineral content, that can change the mined area's landscape. Therefore, the reconstruction is absolutely necessary.

Keywords-*Reconstructing the Development, Eco-Friendly Environment, Green Constitution*

I. INTRODUCTION

For a long time, Indonesia is known as one of the countries that is rich in natural resources. Therefore, mining activities as part of the utilization of natural resources are rampant. Nowadays, Mining is still a pillar of the country's economy. The country's abundant natural resources have caused mining to be the prima donna of almost all regions, especially regions that have natural wealth in the form of mining products. This statement is supported by Regional Original Income (ROI) in several regions of the mining sector which are still quite high. In addition, it is undeniable that mining business activities cause environmental changes [1].

One of the famous mining products is tin. Tin has long been one of the trading commodities in the world. One of the tin-producing regions is the Bangka Belitung Islands Province. Mining activities have been going on for a long time, besides contributing greatly to the economy of the people, including as one of the main sources of regional income. On the other hand it has also become one of the sources of environmental problems in this area.

Environmental issues always follow the issue of tin mining, which until now continues at several points, both on land and at sea, both on Bangka Island and on Belitung Island. In addition to the economic prosperity, unfortunately, tin mining in this area is also one of the serious problems in the environmental field.

As stated by Joseph F. Castrilli [2] that the impacts of mining activities, from exploration activities (for example, resulting in land demolition) to mining activities (in the mining and milling phase) include erosion and sedimentation of rivers and lakes. In addition, the mining sector often creates disputes, including environmental pollution [3]. The same thing also happened in the Bangka Belitung Islands. Mining carried out in the sea for example. The way the tin suction vessel works is by breaking up the coral when tin sand settles between the corals, then the mud from the rest of the tin mining activity is also carried away everywhere. When these vessels operate, fishermen's shrimp catches are only 3 kilograms on average, while when fishermen manage to overtake the vessels the fishermen's catch can reach 40-50 kilograms [4]

Basically, mining is indeed closely related to environmental issues because every mining business is required to maintain the continuity of the carrying capacity and capacity of the environment [5]. Mining actors, according to the mandate of the Minerba Act, are also obliged to reclaim after carrying out mining activities. Only, this obligation is often not carried out by mining companies. The realization of reclamation in PT Timah as the main doer in Bangka Belitung is far from the plan. Every year no single target is achieved, including no reclamation that reaches 50 percent, the maximum is only 25 percent in 2016 [6]. One of the problems is that land that has been reclaimed by PT. Timah (Persero) Tbk is often mined again by the community.

Indonesian legal instruments have long been owned by the environment, such as Law Number 4 of 1972 concerning the Basic Provisions of the Environment, Law Number 23 of 1997 concerning Environmental Management, and Law Number 32 of 2009 concerning Protection and Management the current environment. The

change from one law to the others is based on reasons for refinement and to ensure legal certainty and provide protection for the right of everyone to get a good and healthy environment as part of the protection of the whole ecosystem [7]

II. RESEARCH METHOD

This research is normative juridical, the discussion is based on legislation and applicable legal principles carried out by examining library materials or mere secondary data. This study inventories of applicable legislation (policy), seeks to find the principles or philosophical basis of the legislation (policy), or this study seeks to find a law that is in accordance with a particular case, namely concerning the problems of tin mining in Bangka Belitung Islands Province. It means to find a rule of law, legal principles, as well as legal doctrines to answer legal problems faced [8].

III. FINDINGS AND DISCUSSION

1. *Portrait of Tin Mining in the Bangka Belitung Islands*

From ancient times, Indonesia has been known as a country that is rich in mineral content. People only enjoy a small portion, however the rest is controlled by foreign companies. In fact, Indonesia occupies the second business as the largest tin producer in the world. In addition, mining has created a lot of inequality, including environmental damage caused by mining activities [9].

Historically, mining in the archipelago has been going on for a long time, beginning with miners from India, then continued by miners from China. Concerning tin, in some literacy it is stated that the history of tin world is originated from a metallurgical effort created by humans, namely the mixing process that produced bronze that used copper and tin. The question of where tin is obtained at that time, there is no clarity. Regarding the origin of tin, there are indeed many references [10].

Regardless of the exact time of the discovery of tin for the first time in the Bangka Belitung Islands Province, what is clear is that the discovery of tin in this area has made it a magnet for anyone to profit from tin. This also continues today. Various legislative schemes to regulate tin governance are also changing, marked by various legal products at all times [11]. It's just that, such a rule as if it has not been able to make tin mining as an environmentally sound activity. In fact, the rules issued actually make the environment more damaged uncontrollably.

The tin contained in the Earth of the Bangka Belitung Islands is both a gift and a disaster for this region. It is a blessing because tin was one of the sources of livelihood, and even one of the biggest sources of income for a number of local governments in the region came from tin.

In fact, the post is no longer designated as a national strategic commodity based on the Decree of the Minister of Industry and Trade No. 146 / MPP / Kep / 4/1999 concerning revocation of tin status as a strategic commodity, and Decree of the Minister of Industry and Trade No. 294 / MPP / Kep / 10 / 2001, which does not contain the trading system of tin commodities as goods that are regulated, monitored and prohibited from exporting [12], that tin becomes the main economic source of residents. On the other hand, the gift turned into a disaster when the management of tin mining did not pay attention environmental balance. Unfortunately, fishermen's catches are always decreasing, and floods that always occur are clear evidence that tin mining in the Bangka Belitung Islands has damaged the environment.

Flooding is now one of the serious problems faced by residents in the Bangka Belitung Islands Province. Both on the island of Bangka and on the island of Belitung have experienced major flooding. In 2016, flooding occurred in most areas of Bangka Island. In 2018, flood occurred again. In addition to high rainfall, flooding is also caused by some environmental damage such as illegal or illegal tin mining and no proper functioning of protected forests. The rise of illegal tin mining activities carried out sporadically, coupled with the lack of fulfillment of the obligations of mining companies to conduct environmental reclamation post mining, is considered to be the main cause of major flooding that has hit nearly half of Bangka Island in the past four days [13].

In 2017, the same event occurred on Belitung Island. According to the then Head of Public Relations at the National Disaster Management Agency (BNPB) Sutopo Purwo Nugroho, the increasing environmental degradation in Belitung and East Belitung was allegedly the cause of the flood. Because based on the results of the BNPB study, rainwater in the Belitung region usually flows as runoff and erodes the surface. The rise of this mining business is not supported by efforts to improve the environment to cause damage to the environmental ecosystem. As a result the water becomes cloudy due to mud particles and is difficult to seep into the land and rivers that are already shallow due to the presence of sludge from the results of mining activities. Therefore, there needs to be a strategic policy from the local government to restore mining damage and do dredging in already shallow river flows [14].

2. *Environmental-Based Tin Mining; Embodiment of the Green Constitution*

Article 33 Paragraph (3) The Constitution of the Republic of Indonesia (UUD NRI 1945) expressly states that the earth, water and natural resources contained therein are controlled by the state and are used for the greatest possible prosperity of the people. The Constitutional Court interprets the control of the state including the meaning of control by the state in the broadest sense that comes from the conception of justice

of the Indonesian people for all sources of wealth "earth and water and natural wealth contained in it", including the notion of public ownership by people's collectivity on the sources of wealth referred to. By the constitution, the people are constructed collectively to give a mandate to the state to make policies (regulation) and management actions (bestuursdaad), arrangements (regelendaad), management (beheersdaad) and supervision (toezichthoudensdaad) [15].

As stated by Sony Keraf, one of the main principles of sustainable development is the principle of sustainability, namely the need to design a development agenda in the long-term visionary dimension, to see the impact of development both positive and negative in all aspects not only in the short-term dimension. This principle also drives us to choose alternative development that is more resource-efficient and able to synchronize conservation aspects with wise utilization aspects [16].

Meinhard Schroder says that sustainable development must be eco-friendly and become an internal part in various national developments, which must remain oriented towards environmental protection, which Jimmly Asshiddiqie then offers in the form of ideas about the importance of a green constitution, environmental sovereignty and even a new conception of democracy which is termed as the ecocracy. This principle is what Arif Hidayat should describe in a Green Constitution, and further elaborated in Green Legislation and Green Budgeting [17]

Basically, mining processes carried out both on land and at sea that always have an impact on the environment. Almost no mining does not damage the environment. However, the damage can be reduced by certain steps. Therefore, a set of rules is needed that is not only substantially good, but also implemented well. Environmental law perspective, the regulation must be able to maintain environmental balance.

The environment is the unity of space with all objects, power, circumstances, and living things, including humans and their behavior which affects the continuity of the life and welfare of humans and other living things. From the definition it can be drawn a simple conclusion that the environment includes various kinds of elements which if one of these elements is lost then the environmental balance will be interrupted. Therefore, it is important to maintain the environment, including mining activities.

The natural wealth possessed by the Indonesian people is now less favorable than the welfare of the Indonesian people. The problem of mining in this country is a classic problem which is now always happening and has not been able to find a solution. A number of mining areas always leave stories of conflicts and disputes, especially between residents and mining companies. Acts of mismanagement begin with negligence in seeing Indonesia as an

archipelagic country and the dredging permits issued gegagah.

Abundant natural resources, including tin in the Bangka Belitung Islands Province, are a gift from God that must be grateful and managed well. Even so, this gift cannot be managed without regard to the adverse consequences of the environment. Development that is eco-friendly environment, including in the mining process, must remain a serious concern. One of these efforts can be done with a set of regulations. In the implementation of environmental management in the framework of sustainable development that is environmentally sound, it must be based on legal norms by taking into account the level of public awareness and development of the global environment and the international legal instruments related to the environment.

The green constitution basically demands that natural resource management be carried out with eco-friendly principles to ensure sustainable development. The management of tin mining that has been running so far, especially after the reformation, actually shows massive environmental damage. Although there have been improvements in terms of regulation with the presence of Law No. 4 of 2009 concerning Minerals and Coal and Law No. 32 of 2009 concerning Management and Protection of the Environment, both of which bring a new spirit of better environmental protection, in fact it talks to another. In the context of legal tin mining, efforts to improve the environment through reclamation and post-mining have shown maximum results. Only a few of the total IUPs that have been reclaimed operate, even some of them have not yet carried out reclamation, so the guarantee of reclamation has settled down to 200 billion. Environmental conditions then become worse, when tin mining is carried out illegally by people, where mining is carried out sporadically and left behind afterwards. Including areas that have been reclaimed were also targeted by tin mines without permission. As a result, aside from environmental damage without anyone being responsible, the reclamation program itself becomes disrupted. Environmental-oriented tin mining as a form of a green constitution can be done with several preventive (green education, green culture, environmentally friendly mining technology, and strict supervision) and repressive approaches (enforcement of regional regulations, mineral and coal law enforcement, and enforcement of environmental laws).

IV. CONCLUSION

Basically, mining processes carried out both on land and at sea that always have an impact on the environment. Almost no mining does not damage the environment. However, the damage can be reduced by certain steps. Development that is eco-friendly environment, including in the mining process, must remain a serious concern. The green constitution basically demands that natural resource management be carried out with eco-friendly principles to ensure sustainable development. In the context of legal tin

mining, efforts to improve the environment through reclamation and post-mining have shown maximum results. Environmental conditions then become worse, when tin mining is carried out illegally by people, where mining is carried out sporadically and left behind afterwards. Thus, Environmental-oriented tin mining as a form of a green constitution can be done with several preventive (green education, green culture, environmentally friendly mining technology, and strict supervision) and repressive approaches (enforcement of regional regulations, mineral and coal law enforcement, and enforcement of environmental laws).

REFERENCES

- [1] N. Sudrajat, *Teori dan Praktik Pertambangan Indonesia Menurut Hukum*. Yogyakarta: Yustisia Library, 2010.
- [2] Salim HS, *Hukum Pertambangan Mineral dan Batubara*. Jakarta: Sinar Grafika, 2012
- [3] Salim HS, *Hukum Pertambangan Mineral dan Batubara*. Jakarta: Sinar Grafika, 2012.
- [4] <https://www.voaindonesia.com/a/timah-memakmurkan-dan-sempit-bangka-belitung/4073635.html>
- [5] Salim HS, *Hukum Pertambangan Mineral dan Batubara*. Jakarta: Sinar Grafika, 2012.
- [6] D. Haryadi, Darwance, & R. D. Salfutra, *Implementasi Tanggung Jawab Reklamasi Pertambangan Timah di Pulau Belitung*, Jurnal Hukum Progresif, Volume XII, Nomor 2, Desember 2018.
- [7] D. Haryadi, Darwance, & R. D.Salfutra, *Implementasi Tanggung Jawab Reklamasi Pertambangan Timah di Pulau Belitung*, Jurnal Hukum Progresif, Volume XII, Nomor 2, Desember 2018.
- [8] R. J. P. Nasution, *Interface Hukum Kekayaan Intelektual dan Hukum Persaingan (Penyalahgunaan HKI)*. Jakarta: PT RajaGrafindo Persada, 2013.
- [9] Soerjono Soekanto & Sri Mamuji, *Penelitian Hukum ormatif Suatu Tinjauan Singkat*. Jakarta: Rajawali Press, 2015.
- [10] Salim HS & Erlies Septiana Nurbani, *Penerapan Teori Hukum Pada Penelitian Tesis dan Desertasi*. Jakarta: PT RajaGrafindo Persada, 2013.
- [11] B. J. Nasution, *Metode Penelitian Ilmu Hukum*. Bandung: Mandar Maju, 2008.
- [12] B. J. Nasution, *Metode Penelitian Ilmu Hukum*. Bandung: Mandar Maju, 2008.
- [13] P. M. Marzuki, *Penelitian Hukum*. Jakarta: Kencana Prenada Media Group, 2011.
- [14] Otong Rosadi, *Quo Vadis Hukum, Ekologi & Keadilan Sosial Dalam Perenungan Pemikiran (Filsafat) Hukum*. Semarang: Thafa Media, 2012.
- [15] O. Rosadi, *Pertambangan dan Kehutanan Dalam Perspektif Cita Hukum Pancasila*. Semarang: Thafa Media, Semarang, 2012.
- [16] Darwance, Sigit Nugroho, & Yokotani, *Strategi Pengelolaan Sumber Daya Alam Dalam Pengaturan Pertimahan di Provinsi Kepulauan Bangka Belitung: Dari Zaman VOC Hingga Indonesia Merdeka* Dalam Prosiding SNAPER-EBIS 2017 Seminar Nasional & Call for Paper Ekonomi dan Bisnis 2017 “Strategi Pengelolaan Sumber Daya Daerah dalam Menciptakan Good Governance”. Jember: Program Pascasarjana Fakultas Ekonomi & Bisnis Universitas Jember, 2017.
- [17] S. Sunarso, *Hukum Pidana Lingkungan Hidup dan Strategi Penyelesaian Sengketa*. Jakarta: Rineka Cipta, 2005.