

Problematic Policy: Environmental Impacts of Traditional Mining in Papua

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ARTICLE INFO

Keywords:

Environment; Mining;
Traditional Mining;
Natural Resource

How to cite:

Samosir, H. (2019).
Problematic Policy:
Environmental Impacts of
Traditional Mining in
Papua, Hasanuddin Law
Review, 5 (3): 321-329

DOI:

10.20956/halrev.v5i3.2219

ABSTRACT

Mining without permits has changed land cover in the mining area. The activities of people mining without permits have violated the principle of sustainable development, where the economic aspects take precedence over ecological and social aspects. The research is a normative-legal research using a statute, case and conceptual approaches. The research conducted in Nabire Regency, Papua, Indonesia. The results show that The activities of gold mining in Nabire regency which have been going on for decades have not been well-organized. The implementation of people mining has caused environmental damage, especially in the mining area. The environmental damage due to the weak role of Nabire government in terms of structuring efforts that began with the permitting process for the miners. The local government has the authority to establish regional regulations concerning people mining, so through this authority the management of people mining must be managed through permitting instruments. The authority of the permit only serves the local community as a participant after determining the rights and obligations of miners so that the implementation of people mining can be controlled by the local government by following the principles of sustainable development.

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1. Introduction

Gold mining activities as conducted by the community (people mining) in Nabire regency, Papua, Indonesia and largely is spread in several districts and mostly without permission. Mining without permission as conducted by the community in Topo district of Nabire regency has been ongoing since 1994 and it is done by using traditional tools. Until now there is no clarity on how to manage this mine in the future. As a result, mining without permits has changed land cover in the mining area. The activities of people mining without permits have violated the principle of

sustainable development, where the economic aspects take precedence over ecological and social aspects so that local governments need to overcome them through adequate permit as the People Mining Permits in general given the increasing rate of environmental damage in the mining area.

In relation with the development of information and understanding of miners, mining activities are currently using more modern tools, such as water pumping machines as a means to suck water from rivers for use in areas with more gold potential. As a result of this mining activity has caused some changes in the structure of the watershed, and also changes in land conditions such as the potential for landslides.

In Topo district, the people mining activities need to be examined an in-depth studies, this is related to the problem of negative impacts. The sustainable development approach in managing natural resources cannot be ruled out for a variety of reasons. The principle of sustainable development has become the basis for decision-making or government policies in the utilization of natural resources.

In order to implement autonomy broadly, the authority to manage natural resources in the regions has become the affairs of regional governments. Including the authority in the formation of regional regulations concerning mining management. In local regulations it can contain the material for mining permits for the people and at the same time regarding the implementation of its supervision.

The State's right to control as affirmed in Article 33 paragraph (3) of the 1945 Constitution of the Republic of Indonesia that the earth and water and the natural resources contained therein are controlled by the State and used for the greatest prosperity of the people. Utilization of natural resources as intended, then the role of the government is needed to regulate and at the same time establish regulations so that these natural resources can be utilized to fulfill community needs proportionally.

The understanding of the philosophy of the State's right to control as mentioned above is very clear, i.e natural resources have a very important role to fulfill the needs of many people's lives, so that their utilization should involve the government and regional governments through legal instruments with the intention that resource utilization activities nature can be controlled and remains in line with the principle of sustainable development.

This article aims to determine the role of local governments in carrying out regional government affairs in the field of environmental related to community mining activities. In addition, it focuses on efforts to overcome environmental damage by the local government as a result of community mining without permission.

2. Method

The research is a normative-legal research using a statute, case and conceptual approaches. It was conducted in Nabire reGENCY, Papua province, Indonesia. The object of research relates to the issuance of permits by the government and is related to harmony with the principles of sustainable development and its effect on people's prosperity.

3. Impacts of Traditional Mining on Environmental Damage

The policy of the local government to issues people mining permits in practice is difficult to avoid impacts on environmental damage. Generally, the consideration of issuing permission to the community to mine or called the People Mining Permit is based by several things, for example as an effort by the government to provide opportunities for local communities to have the opportunity to increase their income through mining.

Currently, in the era of democracy, the aspirations of people in various forms have always been important considerations, although not as a whole these aspirations must be adopted by the government to respond. One of the people's aspirations that are difficult to respond for example is the granting of people mining permits (IPR - *Izin Pertambangan Rakyat*) in areas that contain metals such as gold, tin, petroleum and coal.

At the normative level, in consideration letter *b*, the Regional Regulation No. 10 of 2013 concerning People Mining in Nabire regency considers "that in implementing autonomy in accordance with the authority of the region, it is necessary to regulate, develop and control the management and operation of the people mining in order to guarantee legal certainty and maintaining the balance of nature and environmental sustainability." Such consideration does not contain the interests of the local community specifically, even though the consideration should be given for the local community.

Generally, the area of people's mining is initiated by *trial and error* by the peoples and is increasingly known to the wider community that the gold content in the location is potential so that the wider community is increasingly interested in becoming a source of income. Likewise, the finding of the gold mining area in Nabire regency. The history of gold mining in Nabire regency was began with gold panning activities in alluvial deposits in the Topo river, Topo district in 1994. The activity was carried out by migrants from Sangir, Minahasa, Gorontalo, Javanese and Sundanese tribes which were then followed by native residents of Papua.¹

In practice, the mining activities are increasingly in demand by people who come from various parts, all together to do panning in the traditional way even now it has begun by using machines such as heavy equipment and water pumping machines. In some locations, there are soil excavation activities that cause artificial ponds. The spread of several land excavations is caused by many groups of panners who are not organized by the government so that they dig without getting instructions from the government, besides that adequate (traditional) knowledge about mining, resulting in mining activities carried out carelessly.

Also, mining activities are carried out in watersheds. The negative impact arising from mining in watersheds is watershed disruption. The natural shape of the watershed is changing. Panning in watersheds can damage river ecosystems. The extinction of freshwater fish species in watersheds and other creatures can be ensured due to ecosystem changes. The use of hazardous substances such as mercury (Hg) for gold-refining is often done by miners to facilitate the refining process, it causes the water quality becomes polluted.

¹ Denni Widiyathna, Efforts to Conserve Minerals in the Management of Alluvial Gold by Small Scale Mining in Nabire Regency, Papua Province, Psdg.bg.esdm.go.id, downloaded on 15 December 2018, at 8:19.

In gold and silver mining operations taking place, there are often several other elements present and dissolved in mining exploitation, Hg concentration in water bodies is a matter of high priority.² The presence of Hg concentrations in rivers in Nabire regency is very dangerous for the surrounding community, especially for people whose lives depend on these rivers.

The problem of water quality in the watershed in Nabire regency needs immediate attention, so that it is immediately addressed both from the process of preventing pollution expansion, stopping pollution and even recovery of the watershed due to pollution. The local government has the authority to maintain and preserve that the quality of the environment in the region remains good as mandated by Article 12 paragraph (2) letter *e*, Act No. 23 of 2014 concerning Regional Government that the environment is one of the obligatory functions of regional government which is not relating to basic services (Chart 1).

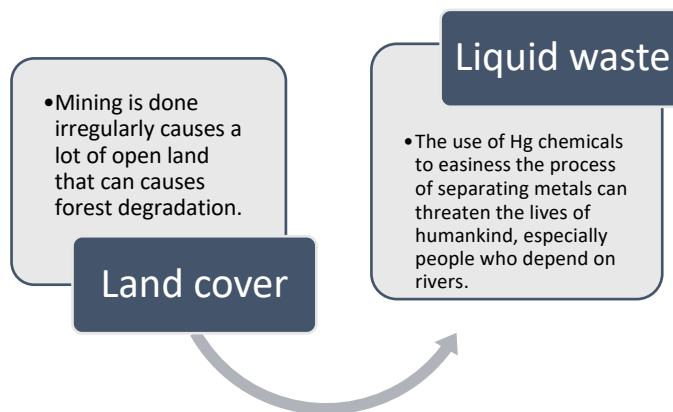


Chart 1. Negative impact of traditional mining

The local government of Nabire has a strong legal basis to ensure the implementation of environmental sustainability. This authority is realized through the issuance of regulations concerning the mechanism of the implementation of people mining that is friendly to the environment.

The local government as an extension of the central government obtains attribution authority as affirmed in the local government law. The authority of the local government of Nabire regency in providing environmental protection and management must be able to inventory a number of problems related to the potential problems of people mining in the region. The potential referred to in this case is the potential of natural resources and even potential problems after the determination of WPR and IPR.

Post-mining environmental damage in practice is not as expected in the provisions of the legislation. Almost all mining areas experience environmental degradation. The carrying-capacity of the environment automatically decreases. The ability of the

² El-Agroudyy A.A, in Nanies Ambarsari and Aulia Qisthi, Remediation of Mercury (Hg) in People Gold Mine Waste Water using Integrated Artificial Wetlands Method. Available from: <https://www.researchgate.net/publication/321631717> Remediation of Hg Mercury in People's Gold Mine Waste Water Using Integrated Artificial Wet Method [accessed on 16 Dec 2018].

environment to accommodate the burden that is on it will continuously decrease as a result of these natural resources can no longer sustain human life around it. This cycle causes almost all people living in mining areas to experience poverty.

This is an effort of the local government to consider the amount of land cover in the area. The effect of land cover in an area can guarantee the preservation of an ecosystem, therefore the local government of Nabire regency needs to pay attention to other aspects of authority so that the authority can run in a balanced manner.

Mining activities are increasingly worsening the landscape and also watersheds. Pre-mining streams were clear, and turned muddy. One of the impacts of environmental damage resulting from mining is the residual material from the production process called *tailings*. Tailings waste as a waste from the processing of mining minerals has a significant potential to increase pollutants in the environment. In the gold and silver mining operations, very often there are several other elements present and dissolved in mining exploitation.³

The responsibility of the State as explained above has a very broad meaning, so that the State with its tools as a subject has inherent responsibilities. It means that the problem of environmental damage cannot be separated from government responsibility. This is in view of Article 33 paragraph (3) of the 1945 Constitution which states that “*the earth and water and the natural resources contained therein are controlled by the State and are used to the maximum prosperity of the people*”.

The meaning of being controlled by the State of the earth and water and natural resources has been clearly formulated that the State has the right to make arrangement for natural resources. Antony Allot believes that the effectiveness of law in the sense of law as prevention (*law is preventive*) is determined by the degree of compliance.⁴

In Indonesia, the natural resource management is still limited in its ability to understand the meaning of natural resources as a fulfillment of the needs of humanity both today and in the future. This is evidenced by several facts that there is a tendency for increased environmental damage, especially in the area of community mining. The local government as the authority holder to arrange or control the mining area has the authority to determine whether an area is eligible for a mining permit or not.

The results showed that there are still many natural resources in Indonesia that have not been utilized and maintained properly, so that they cannot benefit the welfare of the community. Indonesia is known as a country that is rich in natural resources, but many people still live in poverty.

The non-maximum utilization of natural resources is due to the lack of overall public awareness of the benefits of natural resources as a source of State revenue to support the survival of the community. And other is the lack of an adequate understanding of the State’s right to control in the community, which has led to various problems. The problems that appear for example are the control of natural resources in a wild manner, especially community mining. Very popular people mines, for example are people mines in Nabire which are spread across several districts.

³ Siahaan in Ria Simbo, *Hukum Lingkungan & Pelaksanaan Pembangunan Berkelanjutan di Indonesia* (supplemented by No. 32 of 2009 concerning Environmental Protection and Management), PT Gramedia Pustaka Umum, Jakarta, 2012, p.24

⁴ Antony Allot dalam Mas Achmad Santoso, *Alam pun Butuh Hukum dan Keadilan*, as-prima pustaka, Jakarta Timur, 2016, p.95.

State's control over mining as an equivalent of the meaning of "...it controlled by the State". To understand the meaning controlled by the State, etymological interpretation must be made. Controlled by the State is a passive sentence, with the equivalent of State's control in the form of active sentences. According to the Indonesian's dictionary, the notion of the word "to control" is to control over (something), has power over (something), while the notion of the word "controlling" is the process, method, act of controlling.⁵

The activities of people mining that have been operating in Nabire regency for decades have added to the burden of national environmental problems. The environmental problems caused by the mining without permission have changed the natural function of the people's mining area, making it increasingly difficult to restore. The negative impacts caused are increasingly difficult to overcome because all activities are carried out without supervision.

As mentioned above, one of the government's efforts to take action to prevent the ongoing mining activities that have the potential to damage the environment, the local government of Nabire immediately formed a regional regulation regarding the Mining Permit. By establishing a regional regulation, it will function as a basis for implementing supervision. In this case the law is referred to as an instrument of social control.

Permit is an important instrument by the government in relation to controlling it. Theoretically, permitting has several functions, *the first* is a development engineering instrument. The government can make regulations and decisions that provide incentives for socio-economic growth. Conversely, these regulations and decisions can also be a barrier (as well as a source of corruption) for development.⁶ Permit as a development engineering is useful in creating things that can adjust to space and time.

The second is the financial function (*bugetering*), which is a source of income for the State. The granting of a permit is carried out with the counter-achievement in the form of permission fees. The State gets sovereignty from the people, so permission retribution can only be done through legislation.⁷ Regarding permit has function to increase the source of State financial income has been deemed irrelevant. In order to encourage growth in the private sector the central government policy eliminate the provision. While, the third function is the regulation function (*reguleren*), which is an instrument to regulate community actions and behavior.⁸ This is a very important function. In the permit, several conditions must be fulfilled by the applicant, so that even one of the conditions is not fulfilled, the permit application cannot be processed.

In the context of the broader implementation of autonomy, it needs to be supported by strengthening aspects of the law which includes the legal structure itself. Legal strengthening in this case includes strengthening the institutional structure and the legal substance itself. The local government of Nabire regency on the issue of environmental damage is considered weak in playing its role and role in the legal field. The omission of mining activities without permission by the government and local governments can trigger various problems. Problems caused by for example the

⁵ In Azmi Fendri, *Pengaturan Kewenangan Pemerintah dan Pemerintah Daerah Dalam Pemanfaatan Sumber Daya Mineral Dan Batu Bara*, Rajawali Pers, PT Radja Grafindo Persada, Jakarta, 2016, p.125.

⁶ Adrian Sutedi, *Hukum Perizinan dalam Sektor Pelayanan Publik*, Sinar Grafika Jakarta, 2010, p. 198.

⁷ *Ibid*, p.199

⁸ *Ibid*, p. 200

emergence of conflicts between communities,⁹ decreasing environmental carrying-capacity due to mining procedures that violate the provisions of the legislation.

Efforts to protect and manage the environment are one of the authorities owned by the government and local governments, so that the responsibilities of government are automatically inherent in environmental issues. Each sectoral regulation outlines that the government and local governments are given the authority to take actions that are protective of natural resources. The following is the location of the people' mining areas scattered in several districts in Nabire regency (Table 1).

Table 1. Distribution of the people's mining areas in several districts in Nabire regency

No	Region	Traditional Mining Area	Commodities
1	Siriwo, District Siriwo	Mininggi, Bayabiru, Minibiru, Usir 58, Dandim	Gold
2	Kilo 74, District Uwapa	S. Adai, S. Utawa, Kali dadi, Kali 74, Kali 80, Kali 82	Gold
3	Centrico, District Uwapa	Kilo 64, Kilo 66, Kilo 67	Gold
4	Kilo 62-64, District Uwapa	Kilo 62, Kilo 64, S. Tembaga	Gold
5	Wanggar, District Wanggar	Kali Wami, Kali Wanggar, Kali Ororado	Gold
6	Topo, District Uwapa	Argomulyo, Manabusa, Kolo 38, Kilo 40, Kali Cemara, Kali Danil	Gold
7	Musairo-Legare, District Makimi	S. Musairo, S. Legare, Kali Jernih, SP3	Gold
8	Siriwini, District Nabire	Sungai Siriwani	Gold

Source: Primary data, 2019 (edited).

In this regard, the activities of people mining in Nabire regency have been ongoing for decades but there has not been any concrete effort from the government regarding the efforts to address the problems to avoid the negative impacts of the people mining activities. The negative impact of these activities has caused environmental damage such as damage to watersheds, erosion, disruption of forest ecosystems, and others. Naturally, if the omission of this activity was asked, is there an element of government negligence? And what the local government have not ability to regulate people mining in Nabire regency?

Ecosystem damage in people mining areas is increasing due to several things: *the first*, there is no mining mechanism that is suitable with people mining standards; *the second*, there is no information from the government about potential areas regarding the gold metal content, so miners act arbitrarily; *the third*, there is no guidance and supervision of the local government regarding miners; *the fourth*, the spraying method at several locations is performed to increase the production and it is regarded more easily but impacted to the watersheds damage.

Spraying method is intended to increase gold production but causes several environmental problems including: physical and chemical changes in the soil, erosion,

⁹ In Koesnadi Hardjasoemantri, *Hukum Tata Lingkungan*, Gadjah Mada University Press, 2009, Yogyakarta, p.269.

sedimentation, changes in river discharge and damage to the structure and diversity of vegetation.¹⁰

The government's role in relation to the regional legislation program can create protection for the mining area. Currently, the government has not taken pro-environment measures. Mining areas that are exploited by the public are not protected by law. Topo mining in Uwapa district requires government attention. Lack of community awareness, weak law enforcement, lack of facilities and infrastructure owned by the government can create increasingly critical harmony between humans and the environment. According to Marhaeni Ria Simbo,¹¹ environmental factors can have an impact on damage and decreasing the quality of human life that requires recovery, which is closely related to compensation. Calculation of the impact can also be done before the operation of an activity; such mining activities require miners whether individually, in groups or cooperatives first take care of mining permits in advance.

The implementation of local autonomy in the reform era has brought very positive changes in Indonesian state administration. This is indicated by the wide authority in the regions. This authority means to accelerate the economic growth of the community through various local government policies. This includes permitting services for small businesses such as people mining.

In relation with local government initiatives, it has a relationship with the government responsibilities. Responsibility is defined as a condition that must bear all things (if there is something, may be prosecuted, blamed, sued, etc).¹² Responsibility is associated with something that must be accompanied by sanctions, if there is something wrong in the circumstances obliged to bear all of these things. In English the responsibility is called *accountability* which comes from the word *account*.¹³

As earlier described it can be concluded that mining affairs are a concurrent governmental matter, so that in the implementation of local government there is no need to feel alone so that the management of people mining whose legal status is unclear must be regulated immediately, so that the activities of illegal miners obtain legal certainty whether their activities may continue or must be stopped. As a form of responsibility for Nabire's government to address the illegal mining, it is necessary to immediately consider forming a regional regulation on the People Mining Permit (IPR - *Izin Pertambangan Rakyat*) as regulated in Article 72 of Act No. 4 of 2009 concerning Mineral and Coal Mining, that the procedure for granting community mining permit is regulated in regency/municipal regulations.

The urgency of establishing local regulations regarding community mining permit, considering that people mining without a permit is potentially causing environmental damage. Therefore, by IPR, the government can play an active role in controlling every mining activity. In this case the local government selects participants, which is to specialize local residents by using simple tools, limited investment, and also limited

¹⁰ Suhandi, Heru Susanto, Yuman Pertamina (Proceedings of the Activities of the Geological Resource Center in 2011), Research on Optimizing the Potential of Mining Materials of People Mining Areas of Nabire Regency, Provinsi Papua.

¹¹ Marhaeni Ria Siombo, *Hukum Lingkungan dan Pelaksanaan Pembangunan Berkelanjutan di Indonesia dilengkapi dengan UU No. 32 tahun 2009 tentang Perlindungan dan Pengelolaan Lingkungan Hidup*, Gramedia, Jakarta, 2012, p. 44

¹² Muhammad Syarif Nuh, *Hakikat Pertanggung Jawaban Pemerintah Daerah dalam Penyelenggaraan Pemerintahan*, Faculty of Law, Moslem University of Indonesia, Makassar.

¹³ *Ibid*

mining area. This thinking is only a form of local government responsibility towards the local population to be able to live in prosperity.

The authority of the local government in addressing environmental problems due to people mining without a permit is to issues a regional regulation related to the people mining permit, so that its implementation can be given supervision of the people mining procedures as regulated in Act No. 4 of 2009 concerning Mineral and Coal Mining. The procedures for people mining are related to environmental preservation efforts. Mining procedures also involve various matters including waste management. The implementation of people mining uses substances that are harmful to the environment, therefore the implementation must be able to manage waste properly.

The responsibility of Nabire regency in addressing the problem of environmental damage due to mining without a permit is the establishment of regional regulations regarding IPR as a main door. Without the establishment of a regional regulation, the government will experience difficulties in intervening in people mining activities. As a comparison with several regions, for example, Sumbawa regency has arranged IPR procedures based on Regional Regulation No. 21 of 2011 concerning People Mining Permits. In mining activities still found irregularities, for example the existence of unlawful acts carried out by miners in the form of a dispute about land rights.

4. Conclusion

The activities of gold mining in Nabire regency which have been going on for decades have not been well-organized. The implementation of people mining has caused environmental damage, especially in the mining area. The environmental damage due to the weak role of Nabire government in terms of structuring efforts that began with the permitting process for the miners. The local government has the authority to establish regional regulations concerning people mining, so through this authority the management of people mining must be managed through permitting instruments. The authority of the permit only serves the local community as a participant after determining the rights and obligations of miners so that the implementation of people mining can be controlled by the local government by following the principles of sustainable development.

Based on such conditions, Nabire government needs to set anticipatory measures to address mining problems without permits in Nabire regency such as *the first*, the establishment of a team to address mining without a permit; *the second*, immediately establishes a regional regulation governing people mining; and *the third*, inventorying people mining without permission.

Conflict of Interest Statement:

The author(s) declares that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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