Implementation Of Precautionary Principle In Gold Mine Exploitation In Romang Island, Southwest Maluku Regency By PT. Gemala Borneo Utama Based On Law Number 32 Year 2009

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Abstract: Research entitled The Application of Precautionary Principle Prudential Principles in Gold Mine Exploitation in Romang Island, Southwest Maluku District By PT. Gemala Borneo Utama Based on Law Number 32 Year 2009, the aim is to find out and analyze the application of the Precautionary Principle by PT. Gemala Borneo Utama in the Exploitation of a Gold Mine on Romang Island, Southwest Maluku Regency, Based on Law No. 32 of 2009 concerning Environmental Protection and Management (UUPPLH-2009), (State Gazette of the Republic of Indonesia No. 140, Supplement to the State Gazette of the Republic of Indonesia No. 5059), whether the precautionary principle has been applied by PT. Gemala Borneo Utama before mining activities are carried out? This research was conducted using Normal's juridical approach which is a descriptive analysis of qualitative research. This study aims to describe what happened in the implementation of Gold Mine Exploitation on Romang Island, Southwest Maluku Regency by PT. Gemala Borneo Utama. Does the implementation of exploitation apply the precautionary principle as regulated in Article 2 letter UUPPLH. The answer that can be obtained in this study is that PT. Gemala Borneo Utama does not apply the precautionary principle in the exploitation of a gold mine on Romang Island, Southwest Maluku Regency, this can be seen from the results of laboratory analysis that is proven to use mercury (Hg). The percentage has exceeded the threshold and has the potential to pollute the environment, Exceeding Minamata, which is 68.79 Mg / L.

Keywords: Precautionary Principle, Gold Mine Exploitation.

1. INTRODUCTION

As the implementation of the state’s right to control in the field of environmental protection and management in Indonesia, the Government of the Republic of Indonesia, (La Ode Angga, 2015: 11) with the approval of the Indonesian House of Representatives, enacts Law No. 32 of 2009 concerning Environmental Protection and Management, hereinafter referred to as UUPPLH, (State Gazette of the Republic of Indonesia No. 140, and Supplement to the State Gazette of the Republic of Indonesia No. 5059). The UUPPLH has regulated the precautionary principle or principle of early prevention. The precautionary principle or principle of early prevention in the UUPPLH is strictly regulated in Article 2f of the UUPPLH regarding the regulation of principles and explanations. Article 2f of the UUPPLH states that environmental protection and management is carried out based on the principle of prudence. Elucidation of Article 2f of the UUPPLH explains that what is meant by the principle of prudence is:

"Uncertainty about the impact of a business and / or activity due to limited mastery of science and technology is not a reason to delay measures to minimize or avoid the threat of pollution and / or environmental damage". As an implementation of the principle of prudence / early prevention, activities related to instruments for preventing pollution and / or environmental damage in environmental protection and management are regulated in Article 13 of UUPPLH section one which states:

(1) Control of pollution and / or environmental damage is carried out in the context of preservation of environmental functions.

(2) Control of pollution and / or damage to living environment as referred to in paragraph (1) includes:

a. prevention;

b. countermeasures; and

c. recovery.\(^1\)

(3) The control of pollution and / or environmental damage as referred to in paragraph (1) shall be carried out by the Government, regional governments, and those responsible for businesses and / or activities in accordance with their respective authorities, roles and responsibilities.

Furthermore, in Article 14 Part Two of the UUPPLH states:

"Instruments for preventing pollution and / or environmental damage consist of: 1. KLHS; 2. Spatial Planning; 3. Environmental quality standards; 4. Standard criteria for environmental damage; 5. AMDAL; 6. UKL, UPL; 7. Licensing; 8. Environmental economic instruments; 9. Environmental-based laws and regulations; 10. Environmental based budget; 11. Analyze environmental risks; 12. Environmental audit, and 13. Other instruments according to the needs and / or development of science ". Talking about the application of the principle of prudence / early prevention in this article stems from the exploitation and exploration of a gold mine on Romang Island, Southwest Maluku Regency (MBD) conducted by PT. Gemala Borneo Utama. PT. Gemala Borneo Utama carries out gold mining exploitation and exploration activities. In 2018 the exploitation and exploration of the mine was stopped unilaterally by the Maluku provincial government, due to pressure from the Romang Island community on the grounds that PT. Gemala Borneo Utama has done environmental destruction and pollution. The legal problem in this research is why the Maluku Provincial Government issued a Decree on the unilateral termination of the exploitation and exploration of a gold mine on Romang Island, MBD Regency, by PT. Gemala Borneo Utama, is PT. Gemala Borneo Utama did not apply the principle of prudence / early prevention, when doing exploitation and exploration? Legal issues that arise in writing this article, namely Article 87 paragraph (1) of the UUPPLH and Article 1365 of the Civil Code have been

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violated by PT. Gemala Borneo Utama. The empirical reality of the exploitation of gold mining in the MBD Regency has caused serious and significant environmental pollution and damage, which has caused damage both to the environment and to the people who live around the mining activities. Starting from the description above, the formulation of the problems that will be examined in this article are: What are the indications of PT. Gemala Borneo Utama does not apply the precautionary principle in the Exploitation of Gold Mines in Romang Island, Southwest Maluku Regency, Based on Law Number 32 Year 2009?

2. Literature Review

2.1. Definition of Prudent Principles in National Law and Various International Legal Instruments

The precautionary principle other than those regulated in Article 2f of the UUPPLH and its explanation, Article 3 PP No. 21 of 2005 and its explanation, also regulated in various international agreements. Article 2f of the UUPPLH states that environmental protection and management is carried out based on the principle of prudence. Elucidation of Article 2f of the UUPPLH explains that what is meant by the principle of prudence is: (La Ode Angga, 2017: 1) "Uncertainty about the impact of a business and / or activity due to limited mastery of science and technology is not a reason to delay measures to minimize or avoid the threat of pollution and / or environmental damage". In addition to the UUPPLH, the precautionary principle regarding environmental protection and management is also regulated in Government Regulation of the Republic of Indonesia No. 21 of 2005 concerning Biosafety Products for Genetically Engineered Products, (Statute Book No. 44/2005, Supplement to Statute Book No. 4498). Article 3 and its explanation govern the precautionary approach. Article 3 PP No. 21 of 2005 states: "The regulation adopted in this Government Regulation uses a precautionary approach in the context of realizing environmental security, food and / or feed security based on valid scientific methods and taking into account religious, ethical, socio-cultural, and aesthetic principles".

Elucidation of Article 3 PP No. 21 of 2005 states: "The precautionary approach is an approach in decision making to take preventive action for the possibility of a significant adverse impact on the environment and human health, even before conclusive scientific evidence on the impact arises. In this Government Regulation a precautionary approach is implemented in the provision that before a PRG can be utilized it is necessary to first assess and manage environmental, food and / or food security risks with valid scientific methods and consideration of social, economic, and ethical factors, to ensure that the risk of using GMOs on the environment and human health can be accepted based on existing regulatory requirements. Consideration of religious, ethical, socio-cultural and ethical principles, among others, is that genes that are transformed into PRG must originate from organisms that do not conflict with certain religious norms, the shape or phenotype of PRG animals must be commensurate with their age and in accordance with the prevailing aesthetics".

Precautionary principles in international legal instruments are regulated in various declarations. Stockholm Declaration 5-16 June 1972, on Preambe, number 6 states that: A point has been reached in history when we must shape our actions throughout the world with a more prudent care for their environmental consequences. Through ignorance or indifference we can do massive and irreversible harm to the earthly environment on which our life and well being depend. Conversely, through full knowledge and wiser action, we can achieve for ourselves and our posterity a better life in an environment more in keeping with human needs and hopes. There are broad vistas for the enhancement of environmental quality and the creation of a good life. What is needed is an enthusiastic but calm state of mind and intense but orderly work. For the purpose of attaining freedom in the world of nature, man must use knowledge to build, in collaboration with nature, a better environment. To defend and improve the human environment for present and future generations has become an imperative goal for mankind-a goal to be pursued together with, and in harmony with, the established and fundamental goals of peace and of worldwide economic and social development. Furthermore, the precautionary principle is also regulated in Principle 15 the 1992 United Nations Conference on Environment and Development (Rio de Janeiro Declaration from 3 to 14 June 1992) , as follows: (Mas Rosyani., 2019). "Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation", (Andri G. Wibisana, 2011: 242-243).

The principle of prudence was also adopted in The 2000 Cartagena Protocol on Biosafety, as guidance (guidance) for decision making related to genetically modified organisms (GMOs). Article 11 paragraph (8) of the Cartagena Protocol states: (Andri G. Wibisana, 2011: 242-243). "Lack of scientific certainty due to insufficient relevant scientific information and knowledge regarding the extent of the potential adverse effects of a living modified organism on the consumer and sustainable use of biological diversity in the Party of import, taking also into account risks to human health, shall not prevent that Party from taking a decision, as appropriate, with regard to the import of that living modified organism intended for direct use as food or feed, or for processing, in order to avoid minimize such potential adverse effects".

Furthermore, the precautionary principle is regulated in Article 5 of the French Environmental Charter which states: "Lorsque la réalisation d'un dommage, bien qu'inconnue au moment de sa réalisation, peut affecter de manière grave et irreversible l'environnement" . "As a basis for the principle of prudence in addition to what has been stated above, both regulations on national and international legal products in the writing of this dissertation, the author also cites several opinions of experts in the field of law, namely:

M. Geistfeld, believes that: (Andri G. Wibisana, 2011: 241), "In this case, the principle of prudence is considered to play a major role in changing the direction of policy in dealing with serious hazards but is still uncertain. If policy makers have
often been reluctant to take precautions against such dangers, then with the principle of caution, potential hazards can no longer be ignored based on the reason that they are still unclear and are covered by scientific uncertainty.

Mas Achmad Santosa said: (Mas Achmad Santosa, 2011: 116).

"Whereas in applying the precautionary principle, decision making must be based on: (1) serious evaluation to prevent as much as possible environmental damage that cannot be recovered (2) assessment by conducting risk analysis using various options".

Jimly Asshiddiqie stated: (Jimly Asshiddiqie, 2009: 65),

That this precautionary principle is used as an effort to "anticipate and respond to concerns that arise as a result of possible harmful effects of technologies (which are likely to be a bad result of the application of science and technology) that pollute or endanger the environment".

A similar opinion was expressed by De Sadeleer, (Environmental Law Reporter, 2001: 11328), who considers:

"The principle of prudence as a form of anticipatory approach (anticipatory approach), which is a recent stage in the development of decision making that emphasizes the anticipatory actions. According to De Sadeleer, the new approach (anticipatory approach) can be distinguished from the two stages of development in environmental policy making that has so far been used. In the first stage, the environmental policy emphasizes recovery measures, which are manifested in the form of government intervention to restore environmental conditions after a pollution / damage. In the second stage, environmental policies have begun to emphasize a preventive approach. In this second stage, authorized officials are allowed to take interventions (in the form of preventive measures) before environmental pollution / damage occurs. This second stage arises because the threat of environmental damage is seen as a real threat, so that preventive measures when appropriate are deemed necessary to avoid pollution. Both of these stages are considered inadequate, as evidenced by the many serious environmental impacts which failed to be anticipated by policy makers. These failures which later led to the third approach, namely the anticipatory approach, with the principle of prudence as its main characteristic " , (N. de Sadeleer, 2002: 91-92).

(Andri. G. Wibisana, 2006: 41) "In threats the precautionary principle stems from growing concern for environmental protection, which in turn urges states to take measures to prevent environmental degradation even if the deleterious effects of this degradation remain unprove".

(Andri. G. Wibisana, 2006: 242-243), further said:

"That the precautionary principle should not be proven solely by showing permission, consulting with experts, or risk assessment, but rather by showing that decision-making including granting of permits and risk assessment studies have considered all potential impacts (including long-term impacts long), have considered scientific uncertainty, have considered various alternative activities that are better based on best available technology, and have been very attentive to the opinions of various groups, including those who do not approve the proposed activity and those who are potentially affected by the activity ".

"Preventive principle and Precautionary principle are" principles which were initially adopted in the declaration and later adopted in various conventions as a manifestation of the principle of sustainable development. This principle is a development in national and international policies aimed at protecting people and the environment from serious and irreversible dangers. This precautionary principle emphasizes how to take precautions so that there is no deterioration in the quality of the environment resulting from pollution. Furthermore, this principle also regulates the prevention of environmental damage ". (Andri. G. Wibisana, 2008: 214). Prevention is carried out on activities and / or businesses that are not yet known how extensive and how large the loss and / or damage. However, this principle will only apply to estimates that have a serious impact and irreversible damage to the environment. This principle is developing so rapidly in all parts of the earth as a principle that has clear truth (axiomatic) as a principle in preserving the environment (Freestone, David & Ellen Hey, 1996: 12). The precautionary principle shows that the prudential arrangements need to be made by the state in making its policies. It is this activity that has the potential to cause a serious and irreversible impact that in this principle must be prevented. In this case, the lack of scientific certainty cannot be used as an excuse for delaying prevention efforts, (Freestone, David & Ellen Hey, 1996: 12

Explicitly, a report from the United Nations Economic and Social Commission for Asia and the Pacific (UN ESCAP) states that: (UN ESCAP, 1990: 8).

"Believe that, in order to achieve sustainable development, policies must be based on the precautionary principles" (United Nations Economic and Social Commission for Asia and the Pacific)."

The concept of early prevention has indeed been widely accepted and applied in various aspects of life. In relation to this precautionary principle, it is stated that: (UN ESCAP, 1990: 8).

"Science does not always provide the insights needed to protect the environment effectively, and that undesirable effects are the result if measures are taken only when science does provide such insights." Furthermore, Freestone and Hey also suggest that "The essence of priority concept, the precautionary principle, is that once a risk has been identified, the lack of scientific proof of cause and effect will not be used as a reason for not taking action to protect the environment ".

From the above explanation, it can be described the elements in the application of the precautionary principle:

1. "Once a risk has been identified. If a loss has been identified that may arise.
2. Where there are threats of serious or irreversible damage. If there is a serious threat or the threat can not be recovered as a result so that the impact is forever on the environment. Serious and irreversible damage are erratic in size and must be seen in cases of cases.

Lack of scientific certainty. If there is a lack of ability to measure the likelihood of consequences or impacts that will occur. So there is uncertainty or uncertainty over the certainty and extent of the impact that will occur", (Andri. G. Wibisana, 2008: 214). The regulation of prudential principles in the protection and management of the environment in the mining sector of Maluku Province that, given the function of space as a place for humans and other living creatures, to carry out
activities, and maintain their survival, the availability is basically unlimited (La Ode Angga, 2017: 256-163).

1.1. Sustainable mine management
The International Council on Mining and Metals (2003) has compiled the ten principles of sustainable mining management as follows:

a. Implement and maintain ethical business practices and good corporate governance (implement and maintain ethical business practices and sound systems of corporate governance);

b. Integrate the principles of sustainable development in the company's decision making process (integrating sustainable development considerations within the corporate decision-making process);

c. Upholding human rights and respecting culture, customs and values relating to workers and other parties that intersect with mining activities carried out (uphold fundamental human rights and respect cultures, customs and values in dealings with employees and others who are affected by our activities)

d. Implement risk management strategies based on valid and scientific data (implementing risk management strategies based on valid data and sound science); (Yayang Novendasari, 2009).

e. Continue to improve health and safety performance (seek continuous improvement of our health and safety performance);

f. Continue to improve environmental performance (seek continuous improvement of our environmental performance);

g. Contribute to biodiversity conservation and integrated approaches to activities with spatial planning approaches (contribute to conservation of biodiversity and integrated approaches to land use planning);

h. Facilitating and encouraging the design of production, use, reuse, recycling, and disposal of products produced responsibly (facilitating and encouraging responsible product design, use, reuse, recycling and disposal of our products);

i. Contribute to the social, economic, and institutional development of the community in the location of operations (contribute to the social, economic and institutional development of the communities in which we operate);

j. Implement effective and transparent engagement, regulation and independent reporting with stakeholders (implementing effective and transparent engagement, communication and independently verified reporting arrangements with our stakeholders).

On the basis of new environmental paradigms such as holistic thinking, in front of the pipe, 3R principles and minimization, the mining industry needs to implement clean production. Not only at the end but at all stages of mining activities, ranging from general investigations, exploration, feasibility studies, construction, mining, processing and refining, transportation and sales, and post-mining activities, (Yayang Novendasari, 2009).

At the general investigation stage, the mining industry needs to know the extent of the environmental carrying capacity and carrying capacity, the socio-cultural conditions of the local community, the types of flora and fauna that are native to and around the mine, the extent of the clarity of groundwater, river water and forests, (Yayang Novendasari, 2009).

3. Research Methods
This study uses normative legal research methods based on secondary data sources consisting of primary, secondary and tertiary legal materials (Soekanto&Mamudji, 2004: 11) The legal research methodology basically covers descriptions of the method used, the type of research to be carried out, the method of data collection, as well as the elaboration of data and data analysis. The legal material collection technique used in this legal research is through literature study which is based on secondary data / secondary sources by reviewing positive legal provisions and general legal principles, in relation to the issues under study. The data processing and analysis technique used by the author in this study is a qualitative data analysis technique, which is a description of the methods of analysis in the form of collecting data and then edited to further be used as qualitative analysis material, (https://insertpoin.blogspot.com/2016/05)

4. Results and Discussion

4.1. Instruments for preventing pollution and / or environmental damage in the UUPPLH
Instruments for preventing pollution and / or damage to the environment in the form of UUPPLH are regulated in Article 14 of the Second Section of UUPPLH which states: "Instruments for preventing pollution and / or environmental damage in the UUPPLH consist of: 1. KLHS; 2. Spatial Planning; 3. Environmental quality standards; 4. Standard criteria for environmental damage; 5. AMDAL; 6. UKL, UPL; 7. Licensing; 8. Environmental economic instruments; 9. Environmental-based laws and regulations; 10. Environmental based budget; 11. Analyze environmental risks; 12. Environmental audit, and 13. Other instruments according to the needs and / or development of science ".

The instrument described in the article above is complete enough to protect the environment from pollution and damage, but in its application it is precisely that several instruments are not considered at all, for example licensing instruments, sometimes the authorized officer in granting a permit does not pay attention to aspects of environmental risk, and giving permission for management is very easy just for the sake of regional income. As a result, not a few rivers in Indonesia are experiencing environmental damage due to this. In the EIA instrument, many companies in Indonesia still do not have an EIA document, so that environmental damage caused by lack of countermeasures has also occurred. (S. Mamorie, 15 September 2019). The relationship with the precautionary principle in national law is regulated in Article 2 letter UUPPLH (Environmental Protection and Management Law) and Article 3 PP (Government Regulation) No. 21 of 2005, AMDAL (EIA), Environmental Permit and Environmental Risk Analysis, and it is important to do in this activity there is no damage to Environmental pollution, (La Ode Angga ed.al. 2004: 5).
a. KLHS
KLHS is a new legal instrument in environmental law in Indonesia. The new KLHS is regulated in the UUPLH. According to Article 1 point 10 of the 2009 UUPLH, the Strategic Environmental Assessment (SEA) is a series of systematic, comprehensive and participatory analyzes to ensure that the principles of sustainable development have become the basis and integrated in the development of an area and / or policies, plans and / or programs. Thus the SEA as an effort to find a breakthrough and ensure that in the early stages of the development of policies, plans and / or programs the principles of sustainable development have been considered. Strategic meaning means an action or activity since the beginning of the decision making process which has a significant impact on the final results to be achieved. In the context of the KLHS, the act referred to is a review process that can guarantee the consideration of priority matters from the aspect of sustainable development in the decision making process of policies, plans and / or programs early on. In principle, the SEA is a self assessment to see the extent to which the Policies, Plans and / or Programs (KRP) proposed by the government and / or regional governments have considered the principle of sustainable development, both for economic and social interests, in addition to the environment. With this KLHS it is also hoped that the KRP produced and determined by the government and regional government will be better.

b. Spatial
The affirmation of spatial planning as an instrument of prevention, pollution and / or environmental damage is regulated in Article 14 letter b of the UUPLH. Spatial planning functions to control the use of space, especially in relation to environmental management.

c. Environmental Permit
An Environmental Permit is an administrative legal instrument granted by an authorized official. Environmental permits function to control the concrete actions of individuals and businesses so as not to damage or pollute the environment. As a form of direct regulation, environmental permits have the function of fostering, directing, and disciplining the activities of individuals or legal entities so as not to pollute and damage the environment. The main function of an environmental permit is to be preventive, namely to prevent pollution, which is reflected in the obligations stated in the environmental permit. While its repressive function is to tackle pollution and damage manifested in the form of license revocation.

d. Amdal and UKL-UPL
Environmental Impact Analysis (AMDA) is a study of the major and significant impacts of a planned business and / or activity on the environment required for the decision making process regarding the conduct of businesses and / or activities in Indonesia. This AMDAL is made when planning a project that is expected to have an impact on the surrounding environment. What is meant by the environment here is the Abiotic, Biotic, and Cultural aspects.

e. Environmental Quality Standards and Environmental Damage Criteria
Environmental quality standard is the limit of permissible levels for substances or pollutants found in the environment without causing disturbance to living things, plants or other objects. According to the basic understanding, quality standards are government regulations that must be implemented that contain specifications of the amount of pollutants that may be disposed of or the amount of content that may be in ambient media. Objectively speaking, quality standards are targets in the direction in which an environmental management is directed. Quality standard criteria are the compilation or results of a scientific data processing that will be used to determine whether an existing water or air quality can be used according to specific use objectives.

f. Environmental Economic Instruments
The number of environmental problems that occur lately such as; flooding, forest destruction, pollution of sea / land water, soil / land erosion, and coastal abrasion, are inseparable from the assumption that resources (water, air, sea, forests and the wealth in them, etc.) are shared property. There are no rules that limit the use of shared property resources, so that there is excessive exploitation. Each beneficiary uses it as fully as possible with the assumption that others will use the source if it is not utilized to the maximum.

g. Environmental Based Laws and Regulations
Every formulation of laws and regulations at the national and regional levels must pay attention to the protection of the functions of the environment and the principles of protection and management of the environment in accordance with the provisions stipulated in this law.

h. Environmental Based Budgeting
In Articles 45 and 46 of the UUPLH, the Government and the House of Representatives of the Republic of Indonesia and the regional government and the Regional House of Representatives must allocate an adequate budget to finance:
1) environmental protection and management activities; and
2) development programs that are environmentally sound.

The government is obliged to allocate a special allocation fund for the environment which is sufficient to be given to regions that have good environmental protection and management performance.

i. Environmental Risk Analysis
Environmental risk analysis is an activity to study the estimated likelihood of consequences to humans or the environment. Where the risk is divided into two, namely risks that occur to humans are referred to as health risks, while risks that occur to the environment are called ecological risks. Ecology is a branch of biology, where Ecology is one component in the environmental management system that must be reviewed together with other components to get balanced decisions. So in this case, it is the Ecology that is the center of attention.

j. Environmental Audit
Environmental Audit is a management tool that includes systematic, documented, periodic and objective evaluation of how an organization’s performance management system and equipment with the aim of facilitating management control of the implementation of environmental impact control efforts and assessing the use of business policies or activities on laws and regulations concerning management environment.
4.2. Indications of PT. Gemala Borneo Utama does not apply the precautionary principle in the Exploitation of Gold Mines on Romang Island, Southwest Maluku Regency, Based on Law Number 32 Year 2009

Indications PT. Gemala Borneo Utama did not apply the precautionary principle in the Exploitation and Exploration of the Gold Mine on Romang Island, Southwest Maluku Regency, answered from the results of an environmental chemical analysis of mining activities on Romang Island, MBD, which were proven to use mercury (Hg). The percentage has exceeded the threshold and has the potential to pollute the environment, (Emashhttps://www.malukunews.co/berita/mbd/6fzghc0bfd18h, dikases Tanggal 15 September 2019). The results of the laboratory analysis were presented by environmental chemists who were also members of the Team from Pattimura University (Unpatti) -Ambon, namely Dr. Netty in the presence of the Director of Prevention, Enforcement and Administration Sanctions, the Ministry of Forestry and the Environment (KLHK) Rosa Vivien Ratnavati and the Amdal Commission of the Maluku province in the postgraduate meeting room of the Faculty of Forestry at Pattimura University in the PGSD building. The use of mercury, according to Dr. Netty has reached 69.79 milligrams / kilogram. Waste occurring during mining exploitation and exploration by PT. Gemala Borneo Utama already has a very large Hg. Exceeds Minamata, which is 69.79 Mg / L. This means that pollution will be distributed anywhere. The team used soil at 7 drill points (drill hole) in the village of Hila as a sample to analyze heavy metals. The analysis was conducted at the Unpatti MIPA Laboratory and Laboratory of the State Islamic University (UNI) Makassar, South Sulawesi. The results of the analysis were answered that the mercury content used, had exceeded 60 times the specified standard. Thus, it has the potential to pollute the ecosystem in Romang. This is because mercury is a type of heavy metal that does not spread or is bioaccumulating. Humans or animals can be exposed through the marine food chain system. “The impact on humans when exposed, namely cancer, DAD, gene mutations. If mercury has entered the food network (food chain), then the bioaccumulation occurs from phytoplankton, small fish, big fish and humans. His concentration grew until he piled up steadily exceeded the threshold and has the potential to pollute the environment, (Emashhttps://www.malukunews.co/berita/mbd/6fzghc0bfd18h, dikases Tanggal 15 September 2019). In addition to potentially polluting the environment, the mercury findings have shown that processing has been carried out by PT. Gemala Borneo Utama at the drilling location. Because, at the exploration stage, companies should only be able to take samples and test it in the laboratory to get gold and metal derivatives or subordinates. "Why must there be mercury? If they just explore it and there should be no mercury. But based on the results of metal analysis, there is mercury content. Then the indications, there is already processing in place. In addition to mercury, the team also found a number of other heavy metals that had exceeded the threshold value. Among others, iron (Fe), Cadmium (Cd), Zeng (Zn), Weigh (Pb), Chrome (Cr), Manganese (Mm), Copper (Cu), Cobalt (Co), and Aurum / Gold (Au). With details, Cd ranges from 11.09 to 56.92 ppm (exceeding the threshold value), metal Cr 8.3-35.35 ppm (safe for the environment). Then, Zn 8.954-4366.04 ppm (dangerous for the environment), Cu metal 17.19-921.88 ppm, (suspected to pollute the environment), Pb concentration 25.65-2323 ppm, (exceeding the threshold value for confusion) and manganese metal concentration (Mn) 5.48-921.88 ppm (should be a concern). Furthermore, water samples in the hamlets of Tapal Kuda and Yaru dsea Jerusu, there are five parameters that have been polluted. One of them, Ph is very acidic namely Yaru 7.74 Mg / L and Horseshoe 7.13 Mg / L). This has exceeded the Water Quality Standards based on the Ministry of Environment Regulation which only ranges from 6.5 to 8.5 Mg / L . Analysis and calculation of heavy metal cadres refer to Government Regulation of the Republic of Indonesia Number 82 of 2001 concerning Management of Water Quality and Water Pollution Control of the President of the Republic of Indonesia and two other rules. The heavy metal was concluded to have entered the coastal waters of the village of Solat. The indication, seaweed is dead. In fact, before PT. GBU drilling, seaweed thrives in the waters of Solat.

"We indicate that all metals that have entered the H7 position (7th drill hole) exceed the threshold value which is very dangerous. The indicator, seaweed is dead, "he explained (Emashhttps://www.malukunews.co/berita/mbd/6fzghc0bfd18h, dikases Tanggal 15 September 2019). He continued, pollution of the sea by heavy metals became a threat to local residents. Therefore, he hopes that the environmental management of mining activities on Romang Island must be carried out properly.

"Environmental treatment must be done well. This metal does not matter if it is in the environment. But if it's in the food chain, then it's dangerous. Whether it's animals or humans through eating, that's enough, then the accident will occur. "Children and grandchildren will be exhausted, because of gene mutations," he explained. It is said, the team has not been able to conduct further research to prove the alleged contamination of fish or biota and humans due to the heavy metal. However, the team was constrained by funds, (Emashhttps://www.malukunews.co/berita/mbd/6fzghc0bfd18h, dikases Tanggal 15 September 2019). Based on the findings and analysis, the team made four items. First, the revocation of PT. Gemala Borneo Utama and banning all mining activities on Romang Island as a small island, secondly improving the environment that has been polluted by PT Gemala Borneo Utama third, the local government is striving for conflict resolution that has occurred in the community for the past ten years, to avoid a larger and fourth conflict , increasing the human resources of Romang Island for sustainable management of natural land and sea resources. The results of the team's work and recommendations have been given by the governor of Maluku, Said Assagaff. Today, the team will hold a meeting with the related Regional Work Units (SKPD). Chairman of the Unpatti Environment Team, Professor Agus Kastanya said, the impact caused by mining activities for residents in the three villages was very bad, if not immediately addressed. Both the impact of environmental damage and conflict. Sanctions Meanwhile, Rosa Vivien Ratnavati said, the results of the research and analysis of the Unpatti team became a reference for KLHK to make decisions. However, to ensure this, he and several of his staff had been to Romang yesterday afternoon. The arrival of KLHK was based on reports from a number of community elements who formed a coalition in Save Romang Island around October 2016. In addition to seeing field conditions, KLHK will also request data and documents from PT. Gemala Borneo Utama. Including checking environmental permits and the company's Development and Environmental Monitoring.
(PPLH). PT Gemala Borneo Utama can be sanctioned if found guilty. Both administrative, criminal and prime sanctions. If there is a violation, law enforcement action will be taken. There are three enforcement of environmental law. Can be administrative, criminal and civil sanctions. We will see these three later, because each has its own character. But it does not rule out the possibility, three law enforcement devices can also be used together," he said. The meeting was also attended by activist Save Romang and a number of representatives of community leaders rejecting the mine. Security from the Pattimura IV Kodam and the Maluku Regional Police was also present (TAB). The condition of the exploitation and exploration activities of gold mines on Romang Island must be handled by law enforcement officials who understand the principles of prudence in environmental law enforcement to prevent environmental damage that cannot be recovered. The precautionary principle is used in determining the potential losses incurred by a state administrative decision relating to the environment. In polluted environmental conditions, each person is given the right to play an active role in the protection and management of the environment in order to ensure the fulfillment of the rights to the environment. One form of the manifestation of these active rights is to file lawsuits through litigation and non-litigation.

5. Closing

Gold Mine Exploitation in Romang Island, Southwest Maluku Regency By PT. Gemala Borneo Utama, when viewed from the results of the laboratory analysis does not apply the principle of caution strong indications can be seen from the results of the analysis that has been presented by environmental chemists who are also members of the Team from Pattimura University (Unpatti) -Ambon, namely Dr. Netty in the presence of the Director of Prevention, Enforcement and Administration Sanctions, the Ministry of Forestry and the Environment (KLHK) Rosa Vivien Ratnawati and the Amdal Commission of Maluku province in the postgraduate meeting room of the Faculty of Forestry at Pattimura University in the PGSD building. The use of mercury, according to Dr. Netty has reached 69.79 milligrams / kilogram.

References

Book


[19] Law

[22] Other


