



Environmental ethics in dispute resolution hazardous and toxic waste (B3) from industry in Indonesia

Edi Krisharyanto

Faculty of Law, Universitas Wijaya Kusuma Surabaya, Indonesia

Abstract

Environmental pollution disputes due to hazardous waste from industry are problems that have an impact on public health and environmental sustainability. A sense of responsibility towards nature to always maintain and avoid nature from damage must exist in humans. One of the juridical aspects when environmental pollution and destruction occurs is related to dispute resolution. This paper will analyze the Environmental Ethics in the settlement of environmental disputes regarding B3 waste from Industry in Indonesia by using the Normative method, namely analyzing the laws and regulations in force in Indonesia. In this research, it is formulated that environmental ethics is very necessary in environmental dispute resolution efforts by paying attention to environmental principles, including the principles of precautions and the principles of responsibility (whoever pollutes must therefore pay).

Keywords: Environmental ethics, dispute resolution, B3 waste, Indonesia

Introduction

The environment is central to the life of mankind. The environment is created with all kinds of living things scattered around it. What causes environmental pollution today is the result of the human lifestyle itself. Public indifference to the surrounding environment causes a lot of environmental problems to arise. Under the definition contained in Law Number 32 of 2009 concerning Environmental Protection and Management, it is explained that the Environment is a unit of space with all objects, forces, conditions, and living things, including humans and their behavior, which affects nature itself, the continuity of life, and the welfare of humans and other living things ^[1]. The Law on Environmental Protection and Management formulates environmental pollution as the entry or inclusion of living things, substances, energy, and/or other components into the environment by human activities so that it exceeds the environmental quality standards that have been determined.

As the development of technology today affects human habits, many production activities produce waste and garbage and eventually pollute the environment. In addition to technological development, population density in an area also affects environmental pollution ^[2]. As for other factors including, Pollution, pollution is now clearly felt with changes to the mechanism of industrialization and instant, luxurious, and consumptive living behavior that makes the production of an industry increase due to the high interest and demand of the community. Mistakes or lack of attention to waste management from industry is also a factor in pollution to the environment that can have an impact on public health. In addition, the population density of the community is also a factor in the destruction of an environment because, with a large population, the needs in an area also increase so it becomes a series of problems that clash with the environmental system. Next is the factor of ecosystem imbalance where the nature of the environment itself is interrelated, interdependent, and mutually influencing where when in an area there is rain and as a result of land clearing that is not followed by returning to its

original state, flooding will occur in the area, so if one is imbalanced, it will affect the other ^[3].

Environmental issues are not new in Indonesia, environmental issues are a major threat to the survival of humans and other living things. Humans have the most dominant role in influencing the environment. The environment also affects humans. One of the issues that often occur is the problem of environmental pollution, rampant littering, the burning of waste on a large scale of deforestation without reforestation, and factory activities that dispose of waste directly result in the environment becoming increasingly polluted ^[4].

Industry is a sector that has a significant contribution to the economic development of a region, being the main driving force that determines the level of community income. The shift from an agrarian economy to an industrialized one has brought significant progress, but it has also caused negative impacts on the environment due to the waste generated. Industrial waste, which consists of garbage disposal or chemical substances from factories, can cause various health problems and ecosystem damage. Indonesia, through Law No. 32 Year 2009 on Environmental Protection and Management, emphasizes the responsibility of industries in managing waste.

Environmental pollution is one of the most crucial issues in this modern era, especially with the increase in industrial activities that produce hazardous waste. One of the most troubling forms of pollution is pollution by hazardous and toxic waste (B3) generated by various industrial activities. B3 waste includes various types of toxic chemicals that, if not managed properly, can cause severe environmental damage and negatively impact human health. The increase in industrial activities in various regions in Indonesia has led to various environmental problems, especially related to hazardous waste management ^[5]. The management of hazardous waste in Indonesia is regulated by various laws and regulations that aim to ensure that this hazardous waste is managed in a way that is safe and does not damage the environment. However, in practice, many industrial

companies have not fully complied with these regulations, resulting in environmental pollution.

Although there are various regulations governing hazardous waste management, the implementation of these regulations often does not go well. Many companies still do not comply with the stipulated hazardous waste management standards, leading to serious environmental pollution [6]. Environmental pollution by hazardous and toxic waste has a very detrimental impact. Hazardous and toxic materials contained in industrial waste can pollute water, soil, and air, which will ultimately impact human health and environmental sustainability. Water polluted by hazardous waste can cause various diseases in humans, including skin diseases, digestive disorders, and even cancer. In addition, water pollution can also damage aquatic ecosystems, kill fish and other aquatic organisms, and disrupt the balance of the ecosystem.

Soil polluted by hazardous waste can also suffer severe damage. The toxic materials contained in hazardous waste can seep into the soil and disrupt soil fertility. This can harm agriculture and food production, which in turn will affect people's food security. In addition, soil pollution can also disrupt the life of soil microorganisms which are important for maintaining ecosystem balance. Air pollution by hazardous waste can also cause various health problems in humans [7]. Toxic materials that evaporate into the air can cause respiratory distress, eye irritation, and even chronic diseases such as asthma and bronchitis. In addition, air pollution can also harm flora and fauna, which will ultimately disrupt the balance of the ecosystem. In the context of dispute resolution related to environmental pollution by hazardous waste. This analysis is not only important to understand how environmental pollution cases can be legally resolved, but also to identify weaknesses in Indonesia's hazardous waste management system.

Problems regarding the environment certainly cannot be separated from human behavior, because humans have an attachment to the environment, namely humans have rights to the environment. There are two aspects in determining the right to the environment, namely the Procedural Aspect. This aspect is defined as a derivative of the procedural right to the environment also called a supporting element to realize the substantial fulfillment of the right to the environment. Substantive Aspect. Refers to substantive or material rights, which in this context are the right to obtain a decent standard of living and the right to obtain intra- and intergenerational justice.

Discussion and Results

Precautionary Principle in Industrial Waste Management

In environmental law, there is a principle called the precautionary principle or early prevention. This principle means that if it has been scientifically and definitively proven that environmental pollution is causing adverse impacts, then preventive measures must be taken immediately to prevent further damage. This precautionary principle is a wise and proactive attitude in dealing with environmental problems. The precautionary principle or early prevention is in line with efforts to maintain a healthy and sustainable environment [8]. In practice, this principle can be applied in various situations, for example in the use of chemicals, infrastructure development, and waste management. In this case, if there are indications that an

activity could potentially pollute the environment, then preventive measures need to be taken early on before irreparable environmental damage occurs. However, in its application, the precautionary principle often leads to debates on whether the scientific evidence is strong enough and consistent enough to be used as a basis for decision-making. In addition, it is also sometimes difficult to determine to what degree precautionary measures should be taken, so a careful and holistic assessment is needed to anticipate the various possible environmental impacts of an activity or action. However, despite the obstacles and challenges in its application, the precautionary principle remains an important foundation in maintaining a healthy and sustainable environment [9].

The precautionary principle requires a holistic assessment approach. Holistic Assessment refers to a comprehensive evaluation of impacts, including social, economic, environmental, and human health impacts. Holistic assessment recognizes that environmental impacts are not only limited to the physical environment but can also affect human social and economic well-being. Therefore, the precautionary principle encourages impact assessments that involve multiple stakeholders, including scientists, decision-makers, and affected communities. Taking these factors into account, the precautionary principle aims to identify and reduce risks that may be associated with specific activities or products in industrial activities. This is done by implementing preventive or control measures before negative impacts can occur. In practice, the precautionary principle is often applied in environmental policies, including the control of hazardous waste and chemicals, the use of new technologies, and risk assessment of new products in industrial activities [11].

Hazardous waste in medical activity waste is waste that must be managed properly and must not be disposed of carelessly because it has the potential to damage the environment. Therefore, the disposal of B3 waste must comply with the regulations governing its disposal. Waste will be classified as B3 waste if it is under the characteristics of the waste that has been tested and meets the criteria outlined in Article 1 point 1 of government regulations No. 101/2014 that the criteria for B3 Waste include: flammable, reactive, explosive, infectious, toxic, and corrosive. Flammable waste is waste that can burn easily and quickly, such as materials containing oil, organic solvents, or other flammable materials. B3 waste is reactive, meaning that the waste can react with other substances spontaneously and can release energy in the form of heat, gas, or light, such as waste containing chemicals that can produce dangerous chemical reactions. B3 waste is explosive, especially if the waste contains compounds that can release gas and heat suddenly. Infectious waste is waste that can cause infection or disease in humans and animals. Toxic hazardous waste can cause poisoning in humans and animals, even at very small doses. Corrosive hazardous waste can cause damage to the skin, eyes, and respiratory tract of humans and animals if direct contact occurs [12].

The management of hazardous and toxic waste generated by industry is an important aspect of preserving the environment and public health. The precautionary principle or early prevention in environmental law emphasizes the importance of preventive action when it is scientifically proven that certain activities can harm the environment. The negative impacts of hazardous waste pollution can be

extensive and long-term. Hazardous substances that pollute river water can accumulate in the bodies of aquatic organisms, such as fish and aquatic plants, which can then enter the human food chain^[13]. Consumption of water and food contaminated by hazardous waste can cause a variety of serious health problems, including gastrointestinal disorders, organ damage, and other chronic diseases. In addition, water pollution can also damage the soil and reduce the fertility of agricultural land around the river basin, ultimately affecting agricultural productivity and the economic well-being of local communities.

Principle of Absolute Liability in Environmental Pollution Liability

Environmental pollution is a condition when the physical and biological components of the earth system and atmosphere are contaminated to disturb the balance of environmental ecosystems such as living things, substances, energy, or other components in the environment. The contamination can be caused by human activities or natural processes so that the quality of the environment cannot function properly or the order of the environment changes due to human activities or natural processes.

So that the quality of the environment drops to a certain level that causes the environment to be less or can no longer function according to its designation. The causes of environmental pollution can be influenced by various factors. One of them is humans. Environmental pollution itself can be defined as changes in abiotic factors due to activities that exceed the tolerance threshold of the ecosystem in the environment itself. Factors that cause environmental pollution include an increase in population, uncontrolled exploitation of nature, and industrialization that is not managed properly. Law Number 32 of 2009 on Environmental Protection and Management explains that environmental pollution occurs because living things, substances, energy, and other components are introduced into the environment by human activities, thus exceeding the established environmental quality standards. Pollution is any entry or inclusion of living things, energy substances, and also various other components into an environment that causes contamination of the environment itself. Pollutants known as pollutants are anything that can cause pollution. Where this substance can be said to be a pollutant if the amount has exceeded the normal limit at the right time and place^[14].

Settlement of environmental law disputes, according to Law No. 32/2009 on Environmental Protection and Management, hereinafter referred to as UUPPLH, can be done through the court or out of court based on the voluntary choice of the parties to the dispute (Article 84 paragraph 1). Through the court, it can be done through administrative, civil, or criminal channels. Outside the court, it can be done by negotiation, mediation, conciliation, or arbitration. The principle of strict liability in the Environmental Protection and Management Law (UUPPLH), which is also reaffirmed in Law Number 11 of 2020, contains a significant explanation regarding its application in the context of environmental law. Article 88 of UUPPLH and paragraph 3 of the Environmental Agreement Article 88 of Law No. 11/2020 explain that this principle regulates that there is no need to prove the element of fault by the plaintiff to demand payment of compensation. This means that business actors who use Hazardous and Toxic Substances (B3), produce B3

waste, or pose a serious threat to the environment, are responsible for the losses incurred^[15]. This is different from tort claims in general where there must be evidence of fault or negligence that caused the loss. This provision is a *lex specialis* in environmental law cases, which stipulates that the value of compensation that can be charged to polluters or destroyers of the environment can be set to a certain limit. The principle of strict liability aims to protect the environment and society from the negative impacts of industrial or business activities that have the potential to damage the environment. The application of this principle also encourages business actors to increase vigilance and responsibility in managing hazardous and toxic waste as well as implementing best practices in efforts to prevent environmental pollution.

Ethics and Precautionary Principles in the Management of Industrial Hazardous Waste in Indonesia

Ethics is a critical reflection of making choices, determining attitudes, and acting correctly as humans. This critical reflection involves three things, First, critical reflection on the norms and values given by ethics and moralists, meaning the norms and moral values that humans have adopted forever. Second, critical reflection on the specific situation faced by humans with all its uniqueness and complexity. Environmental ethics is the behavior of humans towards nature and also the relationship between all life (including non-living things) in the universe, including government policies related to the environment (legal, political, and economic policies). Thus, environmental ethics is the basis of morality that guides individuals and communities so that they behave wisely to maintain and preserve the integrity of the environment^[16].

The principles of environmental ethics are formulated to be used as a guide for human behavior in living in harmony with nature, both direct behavior and behavior towards fellow humans that cause certain impacts on nature. More broadly, the principles of environmental ethics can be used in the implementation of environmentally sound and sustainable development. Environmental ethics is organized into nine principles^[17], namely: *First*, the principle of respect for nature, this principle shows that there are ways for humans to be able to respect nature such as caring for, maintaining, protecting, and preserving nature and all its contents. In addition, humans are also not allowed to destroy nature without morally justifiable reasons. Second, the principle of moral responsibility towards nature. Nature is our common property, so a sense of responsibility to care for and protect nature must be embedded in humans. *Third*, the principle of cosmic solidarity, the principle of cosmic solidarity encourages humans to make efforts to save the environment to save all life in the world because all-natural life and its surroundings have the same value as human life. *Fourth*, the principle of compassion and care for nature. The principle of compassion and care is a one-way moral principle, towards others, without expecting anything in return. *Fifth*, is the principle of not harm, humans have moral obligations and responsibilities towards nature, at least humans will not want to harm nature by doing damage and things that can harm nature. *Sixth*, the principle of living simply and in harmony with nature This principle emphasizes values, qualities, and ways of life, not wealth, means, and material standards. Seventh, the principle of justice Humans must behave fairly towards anything that

has a relationship with the universe. This includes social systems that must be organized to have a positive impact on environmental sustainability. *Eighth*, the principle of democracy, Democracy provides the widest possible space for differences, diversity, and plurality. *Ninth*, the Principle of moral integration This principle is mainly aimed at people who hold higher positions in life and/or the state, or people who have expertise and responsibilities in fields related to the environment and nature. These people must have high moral dedication in using the access to trust given in carrying out their duties.

In the laws and regulations governing the environment, it is stated that actions categorized as acts that violate the provisions of environmental law that can cause the perpetrators to receive criminal sanctions are acts of pollution and environmental damage. Comprehensive environmental law enforcement measures are needed and can solve environmental problems as a whole. Environmental disputes both between the community and the government; as well as the government and corporations in the field of mining or forest product utilization are often a problem found in society. On the other hand, from year to year, the environment also becomes an interesting issue in various formal and non-formal discussions.

Conclusion

In the life of society and the state, law enforcement is a process to maintain that legal norms can function effectively and are followed by the community in real terms in their relationships. This process aims to ensure that the law becomes a guideline for individual and group behavior in daily life, including in waste management with the aim of sustainable environmental life. Pollution of the environment not only adversely affects the lives of the current community, but will also threaten the survival of future generations. Therefore, both the community and the government have the right and obligation to protect the environment. The community is expected to actively participate in environmental protection while the government seeks to provide protection for the country's environment and the people living in the country's environment through various laws and regulations.

References

1. Law of the Republic of Indonesia Number 32 Year 2009 Concerning Protection and Management of Environment, 2009.
2. Borck R, Schrauth P. Population density and urban air quality. *Regional Science and Urban Economics*,2021;86:103596.
3. Kay JJ. The Ecosystem Approach, ecosystems as complex systems, and state of the environment reporting. Document prepared for North American Commission for Environmental Cooperation, State of the North American Ecosystem meeting, Montreal, Canada, 1994.
4. Jakhar, Rakshit, Samek L, Styszko K. A Comprehensive Study of the Impact of Waste Fires on the Environment and Health. *Sustainability*,2023;15(19):14241.
5. Bahraini A. The Increasing Need for Responsible Waste Management Services in Indonesia, 2022. Available from: <https://waste4change.com/blog/the-increasing-need-for-responsible-waste-management-services-in-indonesia/>
6. Andi Alfies, Yeni. Dampak Pengelolaan Sampah Medis Dihubungkan Dengan Undang-Undang No 36 Tahun 2009 Tentang Kesehatan Dan Undang-Undang No. 32 Tahun 2009 Tentang Perlindungan Dan Pengelolaan Lingkungan Hidup. *Pakuan Justice Journal of Law*,2020;1(1):37-38.
7. Jain M, Kumar D, Chaudhary J, Kumar S, Sharma S, Verma AS. Review on E-waste management and its impact on the environment and society. *Waste Management Bulletin*, 2023, 1(3).
8. Ferronato N, Torretta V. Waste Mismanagement in Developing Countries: A Review of Global Issues. *International Journal of Environmental Research and Public Health*,2019;16(6):1060. <https://doi.org/10.3390/ijerph16061060>.
9. Rodrigue M. The Precautionary Principle in Environmental Law. *Open Journal of Social Sciences*,2023;11:548-567. doi: 10.4236/jss.2023.1112037.
10. Grandjean P. Implications of the Precautionary Principle for Primary Prevention and Research. *Annual Review of Public Health*,2004;25:199-223.
11. Nursabrina A, Joko T, Septiani O. Kondisi Pengelolaan Limbah B3 Industri Di Indonesia Dan Potensi Dampaknya: Studi Literatur. *Jurnal Riset Kesehatan*,2021;13(1):81-82.
12. Nurhasanah L. Eksistensi Pasal 59 dan Pasal 102 UU PPLH terhadap Pengelolaan Limbah B3 Pasca Putusan MK Nomor 18/PUU-XII/2014. *JURNAL Riset Perdaban Hukum*,2024;1(1):19.
13. Yustina EW. Aspek Hukum Pengelolaan Limbah Medis Pada Fasilitas Pelayanan Kesehatan Dan Perlindungan Terhadap Kesehatan Lingkungan. *Jurnal Paradigma Hukum*,2021;6(1):101-102.
14. Potential Pollutants, Their Sources, and Their Impacts. Available from: <https://www.fao.org/4/x5624e/x5624e04.htm>
15. Abidin Z. B3 Waste Management from the View of Civil Law. *Proceedings of 2nd Malikussaleh International Conference on Law, Legal Studies and Social Science (MICoLLS)*, 2022. ISSN 2986-3613. p.1-10.
16. Brennan A, Lo NYS. Environmental Ethics. *The Stanford Encyclopedia of Philosophy* (Summer 2024 Edition), Edward N. Zalta & Uri Nodelman, 2024.
17. Siddiqui A, Nigam R, Khalid M. Environmental ethics and Sustainability, 2024.