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Implementation of Precautionary Principles in Environmental Impact Assessment (EIA) in Indonesia

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ABSTRACT

This article aims to find out about the implementation of the precautionary principle in environmental impact assessment (EIA). The method used in this article is a normative research method. The results obtained from this research are that in terms of environmental approval requirements in Indonesia, one of the requirements is EIA. In the process of preparing EIA, implementation, as well as monitoring and evaluation, all stages require the principle of caution in their implementation. Permits issued by the government should not cause harm to the community as the holder of the highest state power. In EIA there is an obligation to examine the opinions of people who are directly affected by an activity. This is a form of implementing the precautionary principle, but there are still weaknesses in it. EIAs that have passed the assessment must also continue to monitor, evaluate, and be evaluated by the government so that the risks arising from an activity can still be monitored for solutions. In this way, the precautionary principle can be implemented from planning to implementation.

Introduction

The development of the times has a big influence on human life[1]. Technological progress is something that cannot be avoided, including in the environmental sector. There are many positive impacts that occur with technological progress, but no matter how advanced technological development, it must go hand in hand with the principles of sustainable development[2]. The use of natural resources must still pay attention to their availability and sustainability for future generations[3].

Technological developments and advances are utilized in various fields, including assisting in the analysis of activities that have an important impact on the environment[4]. Analysis of environmental impacts or what is more often called EIA or Environmental Impact Assessment (EIA) is a study of the significant impacts of a planned business and/or activity on the environment which is necessary for the decision-making process regarding the implementation of a business and/or activity. EIA is used with the aim of knowing and analyzing the impacts that may occur in an activity, so that alternative solutions can be taken.

[1] Arelys López-Concepción et al., "Social Well-Being for a Sustainable Future: The Influence of Trust in Big Business and Banks on Perceptions of Technological Development from a Life Satisfaction Perspective in Latin America," *Sustainability (Switzerland)* 15, no. 1 (2023): 1–14.
[2] Justice Mensah, "Sustainable Development: Meaning, History, Principles, Pillars, and Implications for Human Action: Literature Review," *Cogent Social Sciences* 5, no. 1 (2019): 1–21, https://doi.org/10.1080/23311886.2019.1653531.
[3] A. Sharma, P. Mahajan, and R. Garg, "End-of-Life Solar Photovoltaic Panel Waste Management in India: Forecasting and Environmental Impact Assessment," *International Journal of Environmental Science and Technology* 21, no. 2 (2024): 1961–1980, https://doi.org/10.1007/s13762-023-04953-2.
[4] Andriansyah Andriansyah, Endang Sulastri, and Evi Satispi, "Role of Government Policies in Environmental Management," *Research Horizon* 1, no. 3 (2021): 86–93.

However, the results of this analysis also require a precautionary principle[5]. This principle is one of the many principles used in implementing environmental protection and management in Indonesia. This article will discuss the concept of the precautionary principle and how to apply the precautionary principle in planning and implementing EIA.

Research Methods

This article uses normative legal research methods with legal principles as the object. This research originates from applicable positive law and is then analyzed using explicitly formulated principles,[6] it is the precautionary principle.

Results and Discussion

1. Precautionary Principles Concept

At the international level, the precautionary principle is implemented in several international agreements, especially in the environmental sector. International agreements such as Vienna Convention for the Protection of the Ozone Layer in 1985, the Ministerial Declaration of the Third International Conference on the Protection of the North Sea in 1990, and The Rio Declaration on Environment and Development in 1992[7]. Most regulations use the precautionary principle after the 1972 Stockholm Conference[8]. The precautionary principle can be interpreted as precautionary actions taken before an impact occurs.[9] The precautionary principle is used to prevent environmental degradation. The precautionary principle is used as a way to encourage sustainable development,[10] by implementing precautionary principles which plan things by looking ahead to all potential impacts on the environment, so that development can be balanced from economic, social and environmental aspects[11].

In precautionary principles there are several important elements such as the uncertainty of risk, the existence of a scientific assessment of risk, the potential for serious damage, the existence of proportional preventive measures, and a shift in the burden of proof[12]. From these elements, it can be seen that precautionary principles must be applied from planning to implementing a permit. In Indonesia, precautionary principles are contained in Law Number 32 of 2009 concerning Environmental Protection and Management[13]. In Article 2 letter f, it is stated that precautionary principles are that uncertainty regarding the impact of an

[5] Pinky Tiara Assa, Muhammad H Soepeno, and Refly R Umbas, "Peran Serta Masyarakat Dalam Proses Penyusunan Analisis Mengenai Dampak Lingkungan Dan Perizinan Lingkungan Hidup," *Lex Administratum* 12, no. 4 (2024): 1–10.
[6] Harselin Sulaiman and Eka Dewi Kartika, "Aspek Hukum Wanprestasi Terhadap Perjanjian Kemitraan Pengelolaan Lahan Di Desa Kinatang Kabupaten Mamaju," *Jurnal Hukum* 7, no. 1 (2024): 32–44.
[7] Majambere Rodrigue, "The Precautionary Principle in Environmental Law," *Open Journal of Social Sciences* 11, no. 12 (2023): 548–567.
[8] Nor Akhmal Hasmin et al., "Adoption of the Precautionary Principle on the Safety and Health Risks of Nanofood in Malaysia," *Journal of Legal Studies* 15, no. 1 (2024): 271–302.
[9] Latifah Emmy, "Precautionary Principle Sebagai Landasan Dalam Merumuskan Kebijakan Publik," *Yustisia Jurnal Hukum* 95, no. 2 (2016): 275–297.
[10] Gitanjali Nain Gill, "Precautionary Principle, Its Interpretation and Application by the Indian Judiciary: 'When I Use a Word It Means Just What I Choose It to Mean-Neither More nor Less' Humpty Dumpty," *Environmental Law Review* 21, no. 4 (December 2019): 293, https://doi.org/10.1177/1461452919890283.
[11] Anindya Yustika, "Precautionary Principle: Perumusan Kebijakan Pengelolaan Energi Baru Terbarukan," *Zaaken: Journal of Civil and Business Law* 5, no. 1 (2024): 1–11.
[12] Emmy, "Precautionary Principle Sebagai Landasan Dalam Merumuskan Kebijakan Publik."
[13] Althea Serafim Kriswandaru and Arief Fahmi Lubis, "Implementation of Environmental Law and Environmental Preservation Efforts in Indonesia," *Anayasa: Journal of Legal Studies* 1, no. 2 (2024): 90–99.

activity/business due to limitations in science and technology is not a reason to postpone steps to minimize or avoid threats to environmental pollution and damage.

2. Implementation of Precautionary Principles in Environmental Impact Assessment (EIA)

In principle, EIA is used as an instrument in preventing environmental pollution and damage. Not only EIA, but also several other instruments, namely:

a. strategic environmental studies;
b. spatial planning;
c. environmental quality standards;
d. standard criteria for environmental damage;
e. environmental impact assessment (EIA);
f. environmental management efforts and environmental monitoring efforts;
g. permission;
h. environmental economic instruments;
i. environmentally based laws and regulations;
j. environmentally based budget;
k. environmental risk analysis;
l. environmental audit; and
m. other instruments according to needs and/or developments in science.

In general, licensing is a preventive instrument to control people's lives so that they do not deviate from applicable legal provisions[14]. EIA is used as a condition for obtaining environmental approval in the form of a decision (beschikking). Beschikking according to J.B.M. ten Berge is a concrete and individual public legal decision originating from a government organ. This decision has legal consequences that must be implemented[15].

It is hoped that EIA as an element of licensing can be a way to screen planned activities that have an important impact on the environment. Here precautionary principles are applied by analyzing the risks of activities and their impact on the environment. When an activity has a high risk of environmental impact and there is no rational solution plan that can be implemented, then the EIA cannot be passed. Likewise, guarantees for the restoration of environmental functions must be owned by the activity owner. Precautionary principles which can be interpreted as environmental protection based on preventive measures[16]. This is appropriate if it is connected to EIA. EIA as one aspect of environmental approval becomes a filter for activities that have an important impact on the environment. Both the requirements given by the government as policy maker, and the implementation when the EIA has been approved, both require the application of the precautionary principle. Based on Government Regulation Number 22 of 2021 concerning Environmental Protection and Management, there are criteria for activities that require EIA. These criteria are:

a. changing landforms and natural landscapes;
b. exploitation of natural resources, both renewable and non-renewable;

[14] AL Sentot Sudarwanto and Dona Budi Kharisma, "Omnibus Law Dan Izin Lingkungan Dalam Konteks Pembangunan Berkelanjutan," *Jurnal Rechts Vinding: Media Pembinaan Hukum Nasional* 9, no. 1 (2020): 109–123.
[15] Herman Herman and Hendry Julian Noor, "Doktrin Tindakan Hukum Administrasi Negara Membuat Keputusan (Beschikking)," *Jurnal Komunikasi Hukum (JKH)* 3, no. 1 (2017): 82–95.
[16] Kimmo Jalava et al., "The Precautionary Principle and Management of Uncertainties in EIAs - Analysis of Waste Incineration Cases in Finland," *Impact Assessment and Project Appraisal* (Taylor & Francis, 2013), http://dx.doi.org/10.1080/14615517.2013.821769.

c. processes and activities that could potentially cause environmental pollution and/or damage as well as waste and degradation of natural resources in their utilization;
d. processes and activities whose results can influence the natural environment, the artificial environment, as well as the social and cultural environment;
e. processes and activities whose results will influence the preservation of natural resource conservation areas and/or protection of cultural heritage;
f. introduction of types of plants, animals and microorganisms;
g. manufacture and use of biological and non-biological materials;
h. activities that have a high risk and/or affect national defense; and/or
i. the application of technology that is estimated to have great potential to influence the environment.

Based on Article 25 Law Number 32 of 2009 concerning Environmental Protection and Management, EIA document contains an assessment of the impact of activities, evaluation of activities around the location of the planned activity, input suggestions and community responses to the planned activity, estimates of the magnitude of impacts and the significant nature of impacts that will occur if the activity is carried out, holistic evaluation of the impacts that occur, and environmental management and monitoring plans. From the contents of these documents, all of them contain an element of caution in their implementation. Community involvement in activity plans is also required in the EIA.

Communities directly affected by activities are involved through announcements of activity plans and public consultations. The right to submit suggestions, opinions and responses to activity plans is submitted within 10 working days of the announcement of the activity plan. This time is considered too short, considering that the communities directly affected require sounding and in-depth understanding of activities that will have an impact on them both from an economic, social and environmental perspective. Even though the implementation of precautionary principles involving the community has been implemented, in this involvement there are no provisions that require the person responsible for the activity to respond to input from the community[17]. This can give rise to potential conflict because the public is not given certainty, so that precautionary principles in this case have not been implemented optimally. EIA is the main requirement that must be fulfilled as a basis for environmental feasibility testing. This environmental approval then becomes a prerequisite for issuing business permits as stated in Article 3 paragraph (3) of Government Regulation Number 22 of 2021 concerning Environmental Protection and Management [18].

Many elements are used in assessing whether a proposed activity passes the EIA test or not. One of the conditions that must be met is the suitability of the activity location with the regional spatial plan. In terms of determining the accuracy of the location, a precautionary principle is needed, because when an activity does not match the location with the regional spatial plan, it will have an impact on the sustainability of the surrounding environment. For example, if an activity in the form of a factory that produces liquid waste is proposed in an area designated as an agricultural area because of its potential, it will have an impact on the level of agricultural land productivity if the liquid waste management is not in accordance

[17] Dewi Tuti Muryati, Dharu Triasih, and Tri Mulyani, "Implikasi Kebijakan Izin Lingkungan Terhadap Lingkungan Hidup Di Indonesia," *Jurnal Usm Law Review* 5, no. 2 (2022): 693–707.
[18] Prita Hapsari Kertaningrum and Widayati Widayati, "Community Participation In Development Of Environmental Impact Analysis Documents (AMDAL) Based On Arnstein Concept," *Law Development Journal* 3, no. 2 (2021): 175–183.

with the EIA. The precautionary principle here is applied in making decisions about whether or not the proposed location is appropriate, because all activities that have an important impact on the environment must have an EIA or UKL/UPL as a requirement before the construction process is carried out. When an activity is declared to be in accordance with the regional spatial plan, the EIA assessment stage continues in accordance with the substantive assessment criteria.

Conclusion

Precautionary principles in EIA are implemented with the aim of maintaining legal responsibility for activities that have risks or important impacts on the environment. Limitations in terms of science and information technology are not an obstacle to implementing precautionary principles. This is actually used as motivation to explore things whose risks are unknown so that they do not cause losses from an economic, social or environmental perspective.

Suggestion

As a suggestion, the government could tighten EIA licensing to obtain environmental approval. The EIA that passes must also be monitored for its implementation with supervision, monitoring and evaluation by the government. Strict sanctions must also be implemented if the implementation of the EIA is not in accordance with what was previously planned. In this way, precautionary principles can be implemented effectively by both business owners and the government.

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