

## The Relevance of the Precautionary Principle in Environmental Law Enforcement

Hyronimus Rhiti<sup>1</sup> Emilia Prasetya Chandavashti<sup>2</sup>

Fakultas Hukum, Universitas Atma Jaya Yogyakarta, Daerah Istimewa Yogyakarta, Indonesia<sup>1,2</sup>

Email: [hyronimus.rhiti@uajy.ac.id](mailto:hyronimus.rhiti@uajy.ac.id)<sup>1</sup> [ameliaprasetya14@gmail.com](mailto:ameliaprasetya14@gmail.com)<sup>2</sup>

### Abstract

Environmental degradation is one of the negative consequences of technological advancements and the increasingly massive development processes taking place. The environment is often viewed purely from an economic perspective, serving as a mere tool to satisfy human economic needs or, in some cases, to fulfill unchecked greed. The anthropocentric perspective, which places humans at the center of the human-nature relationship, is frequently blamed as the root cause of this issue. This article explores the precautionary principle as a fundamental legal doctrine that must be upheld in environmental law enforcement. The *in dubio pro natura* principle is closely related to this concept, asserting that when faced with uncertainty in resolving environmental disputes, judges must prioritize environmental sustainability. This study employs a normative legal research method with a conceptual and philosophical approach. The findings indicate that *in dubio pro natura*, as a principle intrinsically linked to the precautionary principle, must be firmly upheld by judges in handling environmental disputes. This principle is crucial in ensuring environmental sustainability for future generations thereby realizing the concept of intergenerational justice.

**Keywords:** In Dubio Pro Natura; Environmental; Inter-generational Justice.



This work is licensed under a [Creative Commons Attribution-NonCommercial 4.0 International License](https://creativecommons.org/licenses/by-nc/4.0/).

### INTRODUCTION

The environmental crisis poses a serious threat to the future of humanity. The scale and severity of environmental degradation have reached regional and global dimensions, with increasingly dramatic consequences. Deforestation, climate change, and pollution have triggered significant shifts in ecosystems, disrupted biodiversity, and threatened natural resources. These environmental issues have transcended national borders, affecting not only local communities but also the global community as a whole. The rising frequency of extreme weather events, such as floods, wildfires, and droughts, underscores the urgent need for comprehensive solutions to mitigate environmental destruction (Arias et al., 2023). This crisis demands attention at every level—local, national, and international—as it requires collective efforts to address the root causes of environmental degradation and promote sustainability (Mohamad et al., 2022). The ongoing environmental degradation has heightened our awareness of the monumental threats looming in the future. Ecosystem destruction, biodiversity loss, and rising pollution are not isolated incidents but interconnected challenges within a larger environmental crisis. Addressing this crisis requires a fundamental shift in perspective—one that compels governments, businesses, and individuals to take responsibility for their actions and embrace sustainable practices (“Global Environment Outlook – GEO-6: Healthy Planet, Healthy People,” 2019). The consequences of neglecting environmental preservation will be felt by future generations, as the health of our planet is deeply interconnected with the well-being of all living beings. Recognizing the immense risks posed by environmental degradation, it is crucial to implement solutions that not only prevent further damage but also restore and regenerate ecosystems to ensure the planet’s sustainability for generations to come (Fletcher, 2021).

A clean and healthy environment is a fundamental right for every citizen of Indonesia, as mandated by Article 28H of the 1945 Constitution of the Republic of Indonesia. This article affirms that "Everyone has the right to a prosperous life, both physically and mentally, to a place to live, and to a good and healthy environment." This provision underscores that a sustainable, clean, and healthy environment is an essential human right that the state is responsible for upholding and ensuring (Binawan & Soetopo, 2023). In this context, the state has a duty to safeguard, protect, and preserve the environment to ensure the well-being of its people. The escalating global warming has led to significant climate change, further exacerbating environmental degradation. This climate shift is marked by rising global average temperatures, altered rainfall patterns, and an increased frequency of extreme weather events such as floods, droughts, and storms. The consequences of climate change not only disrupt ecosystems and biodiversity but also pose serious threats to food security, clean water availability, and human health (Arifin, 2015). Addressing this issue requires a strong commitment to environmental protection and sustainable management. Effective mitigation measures, such as reducing greenhouse gas emissions, promoting renewable energy, and preserving forests, must be implemented. Additionally, adapting to climate change through the development of disaster-resilient infrastructure and raising public awareness about the importance of environmental sustainability are crucial steps. Achieving these goals necessitates the active involvement of all stakeholders, including the government, private sector, and society as a whole. The resolution of environmental disputes and the enforcement of environmental law involve various stakeholders, including the general public and judges who preside over cases. One of the main challenges in this process lies in the investigation and inquiry stages, where the collection of evidence and witness testimonies significantly influence the court's final decision. Environmental crimes can be addressed through judicial (litigation) and non-judicial (non-litigation) mechanisms. While court proceedings are often the preferred route for resolving disputes, they tend to be time-consuming, involve complex procedures, and require substantial effort and financial resources to reach a final resolution (Puspitasari, 2023).

Negligence in environmental management that leads to environmental destruction—such as the landslides in the Mandalawangi case—has ultimately placed the government in a position of responsibility for the resulting disasters. This reflects the application of the *in dubio pro natura* principle. However, not all judges share the same perspective when ruling on environmental criminal cases. Many environmental disputes are won by those responsible for ecological harm, including mining corporations, due to legal loopholes that allow for manipulation. Law, which should serve as an ethical dialogue among humans to achieve justice, is often overshadowed by greed. It should not merely serve as a tool to assess justice but must actively produce justice, including a new dimension—intergenerational justice, ensuring fairness for future generations. Unfortunately, the philosophy of *deep ecology*, which prioritizes long-term civilizational interests, is increasingly being marginalized. The researcher is keen to explore the underlying philosophical foundations that led to the emergence of the *in dubio pro natura* principle in legal enforcement. Such research is crucial, as studies examining the fundamental reasoning behind legal principles remain relatively scarce. This is particularly evident in environmental cases, where not all judges share a uniform understanding of *in dubio pro natura* when handling legal disputes. A proper grasp of this principle is essential to strengthening environmental conservation efforts for the benefit of future generations. Furthermore, this understanding should be examined in relation to the philosophy of *deep ecology*, which emphasizes the intrinsic value of nature and the long-term sustainability of civilization.

## RESEARCH METHODS

This article is written using a normative legal research method with a conceptual and philosophical approach. The legal materials used in this research consist of primary and secondary legal materials. The legal material collection technique in this study employs a literature review. The analysis technique used in this article applies deductive analysis with reasoning in the form of syllogism.

## RESEARCH RESULTS AND DISCUSSION

One of the key principles in environmental protection and management in Indonesia is the *in dubio pro natura* principle, which is often associated with the concept of *deep ecology*. This concept prioritizes ecosystem sustainability and views nature as a subject that must be preserved in its entirety. In the context of international law, this principle is known as the precautionary principle. The *precautionary principle* was first introduced during the United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro in 1992 and is enshrined in Principle 15 of the Rio Declaration. It emphasizes the importance of taking preventive action, even in cases of scientific uncertainty regarding the environmental impact of a particular activity. This principle asserts that when there is a potential threat to the environment or human health, precautionary measures should be implemented, even if scientific evidence is not yet fully established or conclusive (Ramli et al., 2023). The *precautionary principle* is also a derivative of the sustainable development principle, which was introduced during the Earth Summit in Rio de Janeiro in the same year. Sustainable development itself is a concept that emphasizes the need to balance economic growth, social equity, and environmental conservation for future generations. As a fundamental principle, the *precautionary principle* serves as a crucial foundation for promoting more cautious and sustainable policies in natural resource management and environmental protection. In practice, this principle encourages governments and relevant stakeholders to take proactive measures in preventing potential environmental damage rather than waiting for complete scientific evidence of its negative impacts. By prioritizing preventive action, the *precautionary principle* functions as a guiding framework to ensure a safer and more sustainable future for the planet and generations to come (Farihah, 2012).

The *precautionary principle* serves as a preventive instrument against pollution or environmental destruction, addressing a key challenge faced by policymakers—namely, scientific uncertainty in predicting environmental impacts. In developing environmentally conscious policies, decision-makers must act even in the face of incomplete scientific knowledge regarding potential environmental consequences. This is where the *precautionary principle* comes into play. This principle embodies the idea of taking action before harm occurs, even in the absence of conclusive scientific evidence. It does not require waiting for definitive proof or precise risk assessments before implementing preventive measures. Instead, it emphasizes the necessity of proactive steps to prevent environmental damage, ensuring that precaution is prioritized over reaction (Jordan & O’Riordan, 1994). The precautionary principle mandates that environmental considerations must always be factored into any policy related to the utilization and management of natural resources. An important development of this principle is evident when judges apply it not only in policymaking and environmental management but also in judicial dispute resolution. Judges have begun using the precautionary principle as a standard for evaluating the validity of claims. As a result, this principle is not only preventive but also repressive in nature. From judicial reasoning, it can be inferred that a new legal doctrine in environmental law has emerged—the precautionary principle, which has

given rise to the *in dubio pro natura* principle. This principle asserts that in cases of scientific uncertainty, judges must rule in favor of environmental protection. Such decisions mark the transformation of the precautionary principle from a policy and management tool into a fundamental legal standard in environmental dispute resolution.

The *in dubio pro natura* principle has become a fundamental characteristic of environmental dispute litigation. In the past, defendants in environmental cases often avoided liability for damages because judges, when faced with uncertainty, frequently applied the *in dubio pro reo* principle as their guiding standard. However, with a paradigm shift from a *human-centered (homo-centric) approach* to an *ecosystem-centered (eco-centric) perspective*, environmental litigation has evolved. The *in dubio pro reo* principle, which traditionally favored defendants in cases of doubt, has been replaced by *in dubio pro natura*, ensuring that environmental protection is prioritized in judicial decision-making. In his inaugural speech as a professor, Barda Nawawi stated that “law consists of norms and fundamental values or ideas, one of which is principles that provide direction or explanation for those norms” (Arief, 2018). One of the relevant principles is *in dubio pro natura*, which means *favoring nature*. This principle serves as a guideline for law enforcement in environmental cases. The philosophy of *ecosophy* or *deep ecology* was first introduced in 1972 by Arne Naess, a Norwegian philosopher. Naess argued that the current environmental crisis can only be resolved through a fundamental and radical shift in the way humans perceive and interact with nature. He emphasized that the root cause of the global environmental crisis lies in humanity’s flawed understanding of itself, nature, and its role within the broader ecosystem (Sarah & Yuli A. Hambali, 2023). This *misguided perspective* has ultimately led to harmful behaviors toward nature. Humanity has misinterpreted its relationship with the natural world and misplaced its role within the broader context of the universe.

This misconception is at the root of the various environmental disasters we face today. In the context of environmental management, humanity's mistaken belief that it exists separately from the ecosystem has led to an overemphasis on human interests (anthropocentrism). As a result, people often fail to recognize that ecological degradation caused by unsustainable environmental practices will ultimately lead to harmful consequences for humanity itself (Nanlohy, 2020). Humans are often regarded as the center (*anthropos*) due to their ability to think, feel, communicate, will, and create—all of which exist within the limits set by the Creator. These abilities encompass instinct, reason, conscience, and desire, which form the fundamental aspects of human life and are ultimately governed by a higher power. *Anthropocentrism* is fundamentally linked to humanity (*humanitas*), while *soteriocentrism*—which emphasizes salvation efforts dependent on human actions—can serve as a guiding principle in shaping civilization. The concept of salvation in this context encompasses two key aspects: natural salvation and eschatological salvation. Natural salvation refers to efforts aimed at preventing, or at least delaying, ecological disasters that may arise due to factors such as population explosions, large-scale wars, environmental pollution, global warming, climate and weather disruptions, depletion of natural resources, deadly pandemics, and other existential threats that could jeopardize life on Earth. Satjipto Rahardjo explained that legal studies have now evolved to incorporate deep ecology perspectives. In an interview published in the National Legal Reform Program (NLRP) bulletin, he emphasized that if the law operates solely based on its own logic without learning from the natural environment, then such a legal system can be considered flawed. This perspective signals that the concept of legal subjects in progressive law goes beyond conventional understandings. In progressive legal thought, legal subjects are not limited to *natuurlijk persoon* (natural persons) and *rechts persoon* (legal entities)—which are

often anthropocentric and corporate-oriented—but also extend to marginalized and vulnerable groups within society (Faisal, 2023).

## CONCLUSION

The judicial approach in environmental law enforcement has undergone significant development, particularly in adopting the *in dubio pro natura* principle. This principle reflects a shift from a *homo-centric* perspective to an *eco-centric* one, where, in cases of legal uncertainty, judges prioritize environmental protection to ensure ecosystem sustainability and safeguard the interests of future generations. Furthermore, the evolution of environmental law in Indonesia demonstrates that judges no longer rely solely on statutory law as the primary legal source but also incorporate international legal instruments, such as the 1992 Rio Declaration, as a basis for their rulings. This highlights the dynamic nature of law, which must adapt to societal needs and global environmental challenges. The precautionary principle, initially applied as a preventive measure, has now extended into the repressive legal domain, strengthening legal protection for the environment. Consequently, the role of judges in shaping progressive environmental jurisprudence is crucial in ensuring that the legal system is not only focused on legal certainty but also on sustainability and ecological justice.

## BIBLIOGRAPHY

- Arias, P. A., N. Bellouin, E. Coppola, R.G. Jones, G. Krinner, J. Marotzke, V. Naik, M.D. Palmer, G.-K. Plattner, J. Rogelj, M. Rojas, J. Sillmann, T. Storelvmo, P.W. Thorne, B. Trewin, K. Achuta Rao, B. Adhikary, R.P. Allan, K. Armour, ... I. Gorodetskaya. (2023). Technical Summary. In *Climate Change 2021: The Physical Science Basis. Contribution Of Working Group I To The Sixth Assessment Report Of The Intergovernmental Panel On Climate Change*. In *Climate Change 2021 – The Physical Science Basis*.
- Arief, B. N. (2018). Masalah Penegakan Hukum Dan Kebijakan Hukum Pidana Dalam Penanggulangan Kejahatan. In Kencana Prenada Media Group.
- Arifin, S. (2015). Peranan Dan Fungsi Hukum Lingkungan Mengantisipasi Dampak Perubahan Iklim Pada Sumberdaya Pesisir Sumatera Utara. *Jurnal Hukum Samudra Keadilan*, 10(2).
- Binawan, A., & Soetopo, M. G. S. (2023). Implementasi Hak Atas Lingkungan Hidup Yang Bersih, Sehat, Dan Berkelanjutan Dalam Konteks Hukum Indonesia. *Jurnal Hukum Lingkungan Indonesia*, 9(1). <https://doi.org/10.38011/Jhli.V9i1.499>
- Faisal, A. (2023). Pemikiran Hukum Progresif Prof. Dr. Satjipto Rahardjo. *International Journal Of Cross Knowledge*, 1(2).
- Farihah, Liza. A. F. (2012). Precautionary Principle And Potential Damage In A Case Of State Administrative Decision. *Jurnal Yudisial*, 5(3).
- Fletcher, R. (2021). The Economics Of Biodiversity: The Dasgupta Review. *Journal Of Political Ecology*, 28(1). <https://doi.org/10.2458/jpe.2289>
- Global Environment Outlook – GEO-6: Healthy Planet, Healthy People. (2019). In *Global Environment Outlook – GEO-6: Healthy Planet, Healthy People*. <https://doi.org/10.1017/9781108627146>
- Jordan, A., & O’Riordan, T. (1994). The Precautionary Principle In UK Environmental Law And Policy. Working Paper - Centre For Social & Economic Research On The Global Environment, GEC 94-11. [https://doi.org/10.1007/978-1-349-24237-5\\_5](https://doi.org/10.1007/978-1-349-24237-5_5)
- Mohamad, D., Sanggoro, H. B., Rustendi, I., & Pramono, S. A. (2022). The World Bank - Environment And Social Framework: Expectations And Realities Of Implementing Environmental And Social Safeguards In Infrastructure Projects In Indonesia.

- International Journal Of Sustainable Development And Planning, 17(1).  
<https://doi.org/10.18280/ijstdp.170122>
- Nanlohy, D. F. (2020). Deep Ecology Aplikasi Etis Manusia Dalam Berelasi Dengan Lingkungan Hidup. *Tangkoleh Putai*, 17(1).
- Puspitasari, A. (2023). Indonesia Dalam Rezim Lingkungan Internasional: Implementasi Penegakan Hukum Lingkungan Dalam Kerangka Convention On International Trade In Endangered Species Of Wild Fauna And Flora (CITES). *Jurnal Dinamika Global*, 8(2).  
<https://doi.org/10.36859/jdg.v8i2.1891>
- Ramli, A., Putra, T. I., Dewanti, N. F., Kinasih, S. W., & Arifin, R. (2023). Applying In Dubio Pro Natura In Environmental Crime Cases: Legal Perspectives In Indonesia. *The Indonesian Journal Of International Clinical Legal Education*, 5(4).  
<https://doi.org/10.15294/ijicle.v5i4.76091>
- Sarah, S., & Yuli A. Hambali, R. (2023). Ekofilosofi “Deep Ecology” Pandangan Ekosentrisme Terhadap Etika Deep Ecology. *Gunung Djati Conference Series*, 19.