Author's name: Nabila Alinka Wibowo[1], Lucky Kresna Aji[2] (2026). Title: THE IN DUBIO PRO NATURA PRINCIPLE IN THE ENFORCEMENT OF ENVIRONMENTAL CRIMINAL LAW IN INDONESIA: A CASE STUDY OF PT KALLISTA ALAM. *Recidive*, 15(1): 114-126. DOI: 10.20956/recidive.7i2.xxxx

RECIDIVE
JURNAL HUKUM PIDANA DAN PENANGGULANGAN KEJAHATAN

Volume 15 Issue 1, 2026
E-ISSN: 2355-0406

THE IN DUBIO PRO NATURA PRINCIPLE IN THE ENFORCEMENT OF ENVIRONMENTAL CRIMINAL LAW IN INDONESIA: A CASE STUDY OF PT KALLISTA ALAM

Nabila Alinka Wibowo[1], Lucky Kresna Aji[2]

[1,2]*Faculty of Law, Universitas Sebelas Maret*
Corresponding author's email: nabilaalinkaw@student.uns.ac.id

Abstract: This study examines the application of the principle of in dubio pro natura in environmental law enforcement in Indonesia, focusing on the PT Kallista Alam peatland fire case as reflected in Supreme Court Decision Number 651K/PDT/2015. Using doctrinal research methods through legislative, comparative, and conceptual approaches, this study analyzes the principle's position and its application by judges. The results of the study indicate that, although it has not been explicitly codified, the principle of in dubio pro natura is grounded in the precautionary principle in Article 2, letter f, of Law Number 32 of 2009 and in the constitutional mandate in Article 28H, paragraph (1). Its application has shifted the paradigm from anthropocentrism to ecocentrism. In the PT Kallista Alam case, amid uncertainty about the extent of irreversible damage, the panel of judges progressively prioritized scientific evidence indicating that the land fire reached 1,000 hectares. The judge then sentenced the corporation to pay material compensation and massive recovery costs. This cassation ruling legitimizes the principle of in dubio pro natura as a robust jurisprudential principle for ecosystem sustainability. Harmonization of regulations and standardization of technical guidelines are necessary to reduce disparities in future decisions.

Keywords: *Criminal Law, Environmental law enforcement, In dubio pro natura principle*

1. Introduction

The environment, often called the living environment, is the system that provides habitat for various organisms on Earth. The environment supports and provides life for living creatures by providing space to live, providing food sources, and oxygen, which are basic needs for survival (Fadhilah et al., 2024). Therefore, the existence of the environment must be maintained and utilized optimally for the benefit and welfare of living creatures, especially humans, who essentially have a complementary or mutually complementary relationship, where humans need the environment to live, while the environment requires the role of humans to maintain its sustainability. However, in practice, humans are often negligent in carrying out this responsibility, so that it is often the main cause of environmental damage (Nabila Diantika & Anwar Ibrahim Triyoga, 2026).

Environmental damage has recently become a serious topic of discussion. Two forms of environmental damage that have recently become widespread are deforestation and forest fires. The Ministry of Environment and Forestry (KLHK) stated that in the past two decades, forests in Indonesia have been lost due to deforestation and fires. Since 2000, at least nine million hectares of land have been declared lost due to environmental damage. The current environmental damage is largely caused by human negligence in protecting the environment. Humans can be interpreted as individuals and corporations. This condition is exacerbated by the irreversible nature of environmental damage, particularly to peatlands, which threatens citizens' constitutional rights to a healthy environment (Rexy, 2025).

To meet their needs, humans often exploit nature, especially forests, on a large scale, often in ways that are exploitative and prioritize profit over sustainability (Ali Agil Aufa SH, 2021). This has implications for the rate of deforestation, which continues to increase every year, even though forests are ecosystems with broad ecological and social impacts. Forest fires not only cause the loss of ecological functions but also contribute to increased greenhouse gas emissions, destruction of animal habitats, and a decline in the quality of life of surrounding communities (Gajendiran et al., 2024). In this context, the law plays an important role as an instrument to control human behavior so as not to damage the environment, as regulated in Law No. 32 of 2009. However, in the realm of law enforcement, proving environmental damage often runs into scientific uncertainty to the causal relationship between human activities and the resulting ecological impacts (Jailani & Faisal, 2024).

This dynamic is clearly visible in the case of environmental damage from human-caused forest fires, namely the PT Kallista Alam case in 2012 related to peatland fires in the Rawa Tripa area, Aceh. This area is a vital ecosystem that serves as a carbon sink, a regulator of water resources, and a habitat for various protected species. However, land clearing activities carried out by PT. Kallista Alam's burning has caused significant environmental damage (Ikhsana & Rahmah, 2021). In response to this incident, the government, through the Ministry of Environment and Forestry, filed a civil lawsuit to hold the company accountable for the environmental losses caused.

In the judicial process at the Meulaboh District Court, the judge placed greater emphasis on factual and scientific evidence regarding the fire and the causal relationship between corporate activities and environmental damage. Meanwhile, at the appeal level at the Banda Aceh High Court, the judge's considerations tended to strengthen and reaffirm the results of the evidence and corporate responsibility as decided at the first level. Meanwhile, at the cassation level, through Supreme Court Decision No. 651 K/Pdt/2015, the Supreme Court not only assessed the evidentiary aspect but also advanced more progressive legal considerations by prioritizing environmental protection, reflecting the application of the principle of in dubio pro natura.

Although this jurisprudence is a historical milestone, in practice, disparities in decision-making persist, with some courts still using rigid, formalistic logic, as seen in the PT Kumai Sentosa case, where judges tended to revert to it. This indicates that the

in dubio pro natura principle has not been applied uniformly across all levels of the judiciary. Therefore, it is important to further examine how the in dubio pro natura principle is applied in Supreme Court decisions and its implications for determining compensation and for environmental restoration efforts. This study is expected to contribute to strengthening the direction of environmental law enforcement toward ecological justice and sustainability. The research in this article utilizes doctrinal legal research through a literature review with two research questions: (1) What is the meaning of the in dubio pro natura principle in environmental law and its position within the Indonesian legal system? (2) How is the in dubio pro natura principle applied in legal considerations at each level of the judiciary in the PT Kallista Alam case, and what are its implications for law enforcement and environmental protection?

2. Analysis and Discussion

A. In dubio pro natura Principle in the Indonesian legal system

The principle of in dubio pro natura was first introduced in 1994 by a Brazilian legal expert, Luiz Fernando Coelho, at the II Encontro Magistratura e Meio Ambient (Baldin & De Vido, 2022). At the conference, Luiz Fernando explained that in dubio pro natura is a theory of interpretation, integration, and application of law in an environmental context. This principle demonstrates a shift in the objectives of law enforcement, prioritizing environmental interests, affirming that in times of uncertainty, environmental protection takes precedence. Then, in 2016, the in dubio pro natura principle gained international recognition and was reaffirmed in the International Union for Conservation of Nature (IUCN) World Declaration on the Environmental Rule of Law (Mariano H. Novelli, 2024).

In short, the principle of in dubio pro natura offers a different perspective from the principle of in dubio pro reo. The principle of in dubio pro natura illustrates a tendency to protect environmental sustainability in times of uncertainty (Achmad Muchsin, 2024). Meanwhile, the principle of in dubio pro reo is a principle that shows partiality to the defendant, which, in times of uncertainty, is obligated to render a decision that is more favorable to the defendant (Budi Rizki Husin et al., 2025). Thus, the two principles point in different directions of partisanship: in dubio pro natura is oriented towards environmental protection, while in dubio pro reo is oriented towards the protection of individual rights.

In Indonesia, the principle of in dubio pro natura has not been codified or explicitly stated in any legislation. However, normatively, this principle has been adopted as the basis for the precautionary principle. As stated in Article 2 letter (f) of Law Number 32 of 2009 concerning Environmental Protection and Management (UU PPLH). The precautionary principle in the PPLH Law is interpreted as emphasizing that, in the face of uncertainty about the impact of an activity due to limitations in science and technology, it is not a justification for postponing steps to minimize the threat of environmental damage (Bidang, (UU No. 35 Tahun 2009, n.d.). Therefore, from a judicial perspective, the principle of in dubio pro natura can serve as a guideline for judges in deciding cases when there is uncertainty, such as doubts about scientific evidence or the impacts caused; judges must prioritize siding with nature (Amar, 2025).

The presence of this principle can not only provide guidance for judges in deciding environmental cases. However, it also provides a basis for the realization of the constitutional mandate, namely Article 28H, paragraph 1, which emphasizes that every citizen has the right to live in a good and healthy environment. This shows that the principle of in dubio pro natura has legitimacy.

The application of the principle of in dubio pro natura has confirmed that there has been a shift in Indonesia's legal paradigm from anthropocentrism to ecocentrism. The anthropocentric view originated from Aristotle's thought, which placed a primary focus on humans and viewed nature as an entity limited by the intrinsic value it could provide (Desi Kartikasari, 2020). The presence of the principle of in dubio pro natura rejects anthropocentric thinking and emphasizes ecocentric thinking , which views the environment as an object with intrinsic value and rights that must be protected, not limited to the benefits it can provide to humans.

The principle of in dubio pro natura has been further strengthened by the issuance of Supreme Court Regulation (PERMA) Number 1 of 2023 concerning Guidelines for Adjudicating Environmental Cases , which obligates judges in environmental cases to be progressive. In fact-finding, scientific evidence, such as lab test results, forensic results, and expert opinions, is used, as stipulated in Article 20 of Perma Number 1 of 2023. The emergence of this Perma certainly provides guidance for judges in deciding cases. Thus, when faced with scientific uncertainty, judges do not immediately view such uncertainty as a reason that can be used to provide an advantage to the defendant as stated in the logic of the principle in dubio pro reo (Komisi Yudisial Republik Indonesia, 2024).

As a state based on the rule of law that upholds justice, the implementation of the principle of in dubio pro natura must take into account pre-existing laws and regulations. This relates to Article 1, paragraph 1 of the Criminal Code, which stipulates the principle of legality. The principle of legality is the primary foundation of criminal law, which states "Nullum dellictum nulla poenna sinne praevia lege poenalle”, which means that no act can be punished by criminal law until there are regulations governing it. The principle of legality serves to protect and provide legal certainty (Sri Rahayu, 2014).

The principle of in dubio pro natura is considered potentially contradictory to the principle of legality because it encourages a broader and more flexible interpretation of the law in conditions of uncertainty, while the principle of legality requires a strict interpretation that does not disadvantage the accused. This tension arises primarily in the areas of proof and guilt determination, where environmental protection can conflict with the principle of legal certainty and the guarantees of the defendant's human rights in criminal law. Therefore, its application must be careful, taking into account the principle of legality and the standards of proof. Therefore, to reduce the tension between these two principles, harmonization should be created. The principle of legality cannot be rigid. With the development of information technology, crime modes are also evolving rapidly (Wibowo & Zulfiani, 2025). In environmental cases filled with scientific uncertainty the principle of in dubio pro natura functions as a guideline for interpretation so that doubts in the evidence do not automatically benefit

the perpetrator of the destruction, but are interpreted for the sake of environmental safety as an independent legal interest (Achmad Muchsin, 2024).

In reality, the principle of in dubio pro natura has developed implicitly through jurisprudence, or judicial decisions (Fakhreza Shah et al., 2025). One example is the ruling on the environmental destruction case by PT Kalista Alam. In Supreme Court Decision No. 651 K/PDT/2015, the judge demonstrated a progressive stance by applying the precautionary principle, which is the root of the doctrine of in dubio pro natura. Where judges demonstrate a more progressive approach by prioritizing the principle of prudence as the basis for assessing evidence. This shows that the principle of in dubio pro natura is not only developing at the conceptual level, but is also beginning to take concrete form in judicial practice. Therefore, it is important to further examine how the considerations of judges at each level of the court construct the application of this principle, particularly in assessing evidence, causal relationships, and determining responsibility for environmental damage.

B. Application of the Principle of In dubio pro natura in the Case of PT Kallista Alam

Indonesia is the country with the third-largest forest area in the world after Brazil and the Congo (Irwan & Yulia Ratnaningsih, 2018). According to data from the Central Statistics Agency (BPS), Indonesia's forest area reaches 125.6 million hectares. In general, forests have several benefits, including ecological, social, and economic benefits. The vastness of these forest areas offers significant potential, including abundant natural resources. From a national perspective, forests have significant economic value because they can be a source of foreign exchange through the utilization of forest products, both timber and non-timber forest products (Taefur & Nuriyatman, 2024). However, in order to optimize this utilization, the state cannot act alone and requires the involvement of various parties (Taefur & Nuriyatman, 2024). Furthermore, communities and citizens certainly have the right to manage forest products. Therefore, the state grants permits to certain parties to manage and utilize forest areas for economic activities, while still requiring management principles oriented towards environmental sustainability (Arba et al., 2023).

One company that obtained a business permit for the utilization and management of forest areas for economic activities is PT Kallista Alam, which operates in the Rawa Tripa area of Aceh as part of the private sector's natural resource management. This aligns with human tendencies to feel inadequate and the goal of business activities to generate profit. Granting business permits for forest utilization and management, intended to support sustainable economic activities, often gives rise to environmental problems in practice. PT Kallista Alam, which was granted a business permit by the government, instead of using it responsibly, betrayed the government by clearing land by burning, which caused forest fires.

From 2010 to 2012, forest fires occurred in the Leuser Ecosystem (KEL), an area registered with a business permit owned by PT Kallista Alam. In 2012, the Indonesian

government, through the Minister of Environment, filed a lawsuit against PT Kallista Alam demanding accountability for the forest fires. The case dragged on for a long time in court, from the District Court, the High Court, to the Supreme Court. The judges at all three levels of court unanimously upheld the Minister of Environment's lawsuit demanding accountability from PT Kallista Alam.

The lawsuit against PT Kallista Alam was first filed with the competent District Court, namely the Meulaboh District Court, with Case Register Number No. 12/PDT.G/2012/PN. MBO with the petitum in the main case (1) stating that the seizure of collateral on buildings in Pulo Kruet Alue Village, Bateng, was valid and valuable. Brok (2) stated that the defendant had committed an unlawful act and asked the defendant to pay material compensation of Rp114,303,419,000.00 (3) asked the plaintiff not to plant oil palm in the area where the business permit was held (4) sentenced the defendant to carry out environmental restoration measures amounting to Rp251,765,250,000.00 (5) sentenced the defendant to pay a fine (6) sentenced the defendant to pay forced money (7) sentenced the defendant to pay court costs (8) stated that the decision could be carried out first {Citation}. In this lawsuit, the panel of judges finally granted part of the lawsuit filed by the Plaintiff, which expressly stated that PT Kallista Alam had committed an unlawful act in the form of land clearing by burning forests and had to pay material compensation and make payments for environmental restoration.

The Meulaboh District Court's decision No. 12/PDT.G/PN MBO has progressively demonstrated its commitment to the environment by prioritizing ecosystem protection over economic interests and administrative uncertainty, thereby reflecting the principle of in dubio pro natura. In this case, the Panel of Judges addressed uncertainty about the extent of the burned land by using scientific evidence. evidence) . Initially, PT Kallista Alam stated that the burned area was 5 hectares, in contrast to scientific evidence from the Minister of Environment and Forestry, sourced from NASA's MODIS satellite. The evidence submitted by the Minister of Environment and Forestry explained that the forest fire was 1,000 hectares. Due to differences in the statements submitted by both parties, the judge placed greater weight on expert analysis based on scientific evidence indicating that the forest fire was 1,000 hectares. The judge's belief in the use of this scientific evidence is now strengthened by the existence of PERMA No. 1 of 2023 in Article 20, which explains that scientific evidence may be used in fact-finding.

In the decision of the Meulaboh District Court Number 12/PDT.G/PN MBO, the application of the principle of in dubio pro natura is also evident in the recognition of the ecological losses. The panel of judges considered and acknowledged the opinions of experts who explained that there was irreversible damage to peatlands . However, an expert, Dr. Ir. Basuki Wasis, M.Sc., explained that peatlands could still be restored at a very high cost. Therefore, based on these considerations, the Panel of Judges granted the lawsuit from the Minister of Environment and Forestry to impose a penalty in the form of restoration costs of Rp251,765,250,000.00. Not only did the Panel of Judges

grant the restoration costs, but they also granted the lawsuit in the form of a request that PT Kallista Alam not plant oil palm in areas that already have a business permit. This shows that when there is uncertainty about nature's ability to recover independently. The decision to "lock" the land away from commercial activity is a clear sign of pro-nature, ensuring that the damaged land has the opportunity to recover without the disruption of the business activities that initially caused the damage. The judge chose to prioritize extensive restoration efforts to ensure ecosystem sustainability.

The first instance court decision, which granted part of the Minister of Environment's lawsuit, was found by PT Kallista Alam to be insufficient to provide complete legal certainty. Therefore, PT Kallista Alam filed an appeal with the Banda Aceh High Court, case registration number 50/PDT.G/2014/PT. BNA which in fact strengthened the Meulaboh District Court's decision but made several improvements in the substance of the decision, including (1) strengthening the unlawful act committed by PT Kallista Alam which caused peatland fires in the Leuser Ecosystem Area (2) strengthening the amount of compensation that must be paid by PT Kallista Alam because in the Meulaboh District Court's decision the calculation of compensation still began with the sentence "more or less" which was considered imperfect. PT Banda Aceh made improvements to create a balance of evidence and ensure that the spirit of in dubio pro natura continues to reflect an accurate sense of justice (3) Adding the order "certain actions" which are used as a form of improvement, PT Banda Aceh added a new order in its decision, namely ordering the Environmental Agency/Department in West Aceh and Nagan Raya Districts to supervise the implementation of the environmental restoration.

The Banda Aceh High Court's decision in the PT Kallista Alam case also reflects the in dubio pro natura principle, explicitly stating it in its compensation decision. The mention of this principle in the decision indicates that the judge used the in dubio pro natura doctrine as an interpretive guideline to ensure that even though environmental protection is prioritized, decisions taken must still be based on the principle of prudence and fair calculation. Furthermore, the High Court emphasized that judges are expected to adopt a progressive approach in handling environmental cases. This is because environmental cases are complex and often involve evidence. The principle of in dubio pro natura gives environmental judges the courage to prioritize environmental protection and management over administrative rigidity or technical doubt (Endri, 2022).

The case of PT Kallista Alam with the Minister of Environment and Forestry continues to the cassation level. PT Kallista Alam, as the defendant, feels that the decision of the Banda Aceh High Court has not provided justice, so PT Kallista Alam filed a cassation appeal with the Supreme Court under case registration number 651K/PDT/2015. At the cassation level, the judge also issued a decision in the form of strengthening the court's decision at the previous level by (1) rejecting the cassation application (2) justifying the decision of the judicial review committee. The Supreme Court is of the opinion that the

Banda Aceh High Court Decision, which previously revised and strengthened the Meulaboh District Court Decision, was not wrong in applying the law (3) to validate the existence of unlawful acts committed by PT Kallista Alam and to confirm the amount of compensation that must be paid by PT Kallista Alam. The Supreme Court, in its legal considerations for the cassation decision, explicitly emphasized the use of the principle of in dubio pro natura. The Supreme Court emphasized that, in determining the cause and effect between company activities and land fires, as well as future losses, the judge must base the decision on the doctrine of in dubio pro natura. This is important because in environmental cases, there is often scientific uncertainty that cannot be resolved only through conventional civil law logic.

Through Cassation Decision Number 651K/PDT/2015, the Supreme Court legitimized the principle of in dubio pro natura in the Indonesian legal system. By refuting the Cassation Applicant's argument that the use of this doctrine was "far-fetched," the judge emphasized that in dubio pro natura is based on the principles of Article 2 of Law Number 32 of 2009 concerning Environmental Management and Management, namely the precautionary principle, environmental justice, biodiversity, and polluter pays. Thus, Cassation Decision is the pinnacle of legal strengthening that determines PT Kallista Alam is permanently guilty, while also providing strong jurisprudence regarding the obligation of judges to apply the principle of in dubio pro natura in maintaining the sustainability of the ecosystem for the benefit of future generations. A brief comparison of the three levels of court decisions in the PT Kallista Alam case can be seen in the table below:

Table 1. Comparison of Court Decisions in the PT Kallista Alam Case

Verdict	Decision Number 12/PDT.G/2012/PN.MBO	Decision Number 50/PDT.G/2014/PT.BDA	Decision Number 651K/PDT/2015
Decision Status	Granting the Plaintiff's claim in part.	Improving the legal considerations and structure of the Meulaboh District Court's decision.	Rejecting the cassation application from PT Kallista Alam
Defendant's Exception	Reject the Defendant's exception in its entirety.	Reject the Appellant/former Defendant's exception in its entirety.	Rejecting the reasons for cassation regarding exceptions.

Unlawful Acts (PMH)	Declaring that the Defendant was proven to have committed PMH (pollution/destruction of peat land).	Declaring that the Appellant/former Defendant was proven to have committed PMH.	Strengthening PMH findings from Judex Facts.
Material Compensation	Ordering the Defendant to pay Rp114,303,419,000.00 to the State Treasury.	Strengthening the material compensation penalty of Rp114,303,419,000.00 .	Strengthening the amount of compensation.
Land Restoration Action	Ordering the Defendant to restore burnt land of approximately 1,000 ha at a cost of Rp251,765,250,000.00 .	Strengthening the obligation to restore land of +/- 1,000 ha at a cost of Rp251,765,250,000.00.	Strengthening the obligation of recovery.
Planting Prohibition	Ordering the Defendant not to plant oil palm on burnt peat land of approximately 1,000 ha.	Strengthen the order prohibiting planting on burned land covering an area of +/- 1,000 ha.	Strengthening the ban.
Seizure of Collateral	Declaring the legal and valuable seizure of collateral for HGU No. 27 covering an area of 5,769 ha.	Declaring the legal and valuable seizure of collateral for HGU No. 27 covering an area of 5,769 ha.	Rejecting the cassation objection regarding the seizure of collateral.
Supervisory Mechanism	Not specifically regulated.	Added new order: Ordered the West Aceh & Nagan Raya Environmental Service to supervise the implementation of land restoration.	Strengthening the existence of the supervision order.

3. Conclusion

The principle of in dubio pro natura has been recognized in Indonesia as a progressive principle that prioritizes environmental protection amidst conditions of scientific uncertainty. Although not yet explicitly codified, this principle is normatively based on

the precautionary principle in Article 2 letter f of the Environmental Management Law and the constitutional mandate of Article 28H paragraph (1) of the 1945 Constitution. Its application marks a shift in the legal paradigm from anthropocentrism to ecocentrism, where nature is viewed as a legal subject with intrinsic value to be protected. The principle of in dubio pro natura has developed through jurisprudence. For example, the PT Kallista Alam case provides concrete evidence that judges used this doctrine to overcome factual doubts regarding the extent of irreversible peatland damage. In this case, the panel of judges believed more in the scientific evidence indicating fires covering 1,000 hectares compared to the company's claim of only 5 hectares. The Supreme Court's cassation decision ultimately legitimized the use of this principle by ordering the company to pay material compensation and environmental restoration costs reaching hundreds of billions of rupiah.

References

Journals:

Achmad Muchsin. (2024). Judge's Consideration Of The Principle Of In dubio pro natura: An Analysis of Decision Number 359 K/TUN/TF/2023. *Jurnal Yusidial*, *17*(1). https://doi.org/10.29123/jy/v17i1.681

Ali Agil Aufa SH. (2021). Prinsip Sustainable Development dalam Penegakan Hukum Lingkungan. *Staatsrecht: Jurnal Hukum Kenegaraan Dan Politik Islam*, *1*(2).

Amar, K. (2025). *Penerapan Asas In dubio pro natura Dalam Sengketa Tata Usaha Negara Bidang Lingkungan Hidup* [Artikel Ilmiah Para Hakim]. PTUN AMBON. https://ptun-ambon.go.id/images/artikel_ilmiah_para_hakim_2025/Asas_In_Dubio_Pro_Natura_PTUN_AMBON.pdf

Arba, Sudiarto, & Rizki Yuniansari. (2023). Forest Protection and Its Role in Human Life and the Natural Environment. *Jurnal Komunikasi Hukum (JKH)*, *8*(2). https://doi.org/10.29303/jkh.v8i2.144

Baldin, S., & De Vido, S. (2022). The In dubio pro natura Principle: An Attempt of A Comprehensive Legal Reconstruction (Pt 168-199). *SSRN Electronic Journal*, *32*. https://doi.org/10.2139/ssrn.4313438

Budi Rizki Husin, Fransisca Emilia, & Maroni Maroni. (2025). Peran Asas Dubio Pro Reo dalam Pasar Pertimbangan Putusan Bebas (Vrijspraak) pada Kasus Pemerkosaan dan Pembunuhan: (Studi Putusan Nomor : 155/Pid/2020/PT TJK). *Demokrasi:*

Jurnal Riset Ilmu Hukum, Sosial Dan Politik, *2*(2), 53–64. https://doi.org/10.62383/demokrasi.v2i2.855

Desi Kartikasari, M. (2020). Menelisik Akar Pemikiran Asas In dubio pro natura Dalam Penegakan Hukum. *Jurnal Verstek*, *8*(3). https://doi.org/10.20961/jv.v8i3.47063

Endri. (2022). The Principle Of In dubio pro natura In The Context Of Environment Administrative Dispute: Its Concept And Implementation. *Jurnal Hukum Peratun*, *5*(2), 117–136. https://doi.org/10.25216/peratun.522022.117-136

Fakhreza Shah, S., Syahrin, A., & Sutiartono3. (2025). Eksistensi Prinsip In dubio pro natura dalam Penegakan Hukum terhadap Pelaku Pencemaran Lingkungan Hidup. *Jurnal Ilmu Hukum, Humaniora Dan Politik*, *5*(6). https://doi.org/doi.org/10.38035/jihhp.v5i6

Gajendiran, K., Kandasamy, S., & Narayanan, M. (2024). Influences of wildfire on the forest ecosystem and climate change: A comprehensive study. *Environmental Research*, *240*, 117537. https://doi.org/10.1016/j.envres.2023.117537

Ikhsana, L., & Rahmah, N. A. (2021). Civil Lawsuit Cases of Forest and Land Fires PT Kalista Alam (Study of Meulaboh District Court Decision Number 12/PDT.G/2012/PN.MBO). *Jurnal Scientia Indonesia*, *7*(2), 185–200. https://doi.org/10.15294/jsi.v7i2.36152

Irwan, M. & Yulia Ratnaningsih. (2018). Keanekaragaman Jenis Dan Pemanfaatan Hasil Hutan Bukan Kayu (HHBK) Di Kawasan Hutan Kemasyarakatan (HKM) Desa Girimadia Kecamatan Lingsar Kabupaten Lombok Barat). *Jurnal Silva Samalas*.

Jailani, M., & Faisal, M. (2024). Sistem Pembuktian Pidana Pada Pelanggaran Hukum Lingkungan di Indonesia. *JURNAL SOSIAL EKONOMI DAN HUMANIORA*, *10*(3), 512–519. https://doi.org/10.29303/jseh.v10i3.675

Mariano H. Novelli. (2024). The Environmental Rule of Law' onmental Rule of Law's Transformativ ansformative Power. *Seattle Journal of Technology, Environmental, & Innovation Law*, *15*(1). https://digitalcommons.law.seattleu.edu/cgi/viewcontent.cgi?article=1079&context=sjteil

Nabila Diantika & Anwar Ibrahim Triyoga. (2026). Keterasingan Manusia Dari Alam Dalam Cerpen Sumir Karya Eka Kurniawan:Kajian Ekokritik Sastra Greg Garrard. *Ilmu Budaya: Jurnal Bahasa, Sastra, Seni, dan Budaya*, *10*(1).

Rexy. (2025, November 8). Data Kerusakan Lingkungan: Fakta, Dampak, dan Upaya Pemulihan. *Indonesia Environment & Energy Center*. https://environment-indonesia.com/data-kerusakan-lingkungan/

Sri Rahayu. (2014). Implikasi Asas Legalitas terhadap Penegakan Hukum dan Keadilan. *Inovatif: Jurnal Ilmu Hukum*, *7*(3).

Taefur, M. A., & Nuriyatman, E. (2024). Judgement without Sanction on Corporation's Forest Burning; Judges and In dubio pro natura Principle in Indonesia. *Supremasi Hukum: Jurnal Kajian Ilmu Hukum*, *13*(1). https://doi.org/10.14421/sxyk5019

Authored Books:

Fadhilah, Andi Susilawaty, Linda Noviana, Novin Teristiandi, Marulam MT Simarmata, Erick Nugraha, Maisarah, Yunnita Rahim, Arsyad Yunus, Triastuti, Reza Shah Pahlevi, Lailal Gusri, Jenny Delly, & Fadhilah, Andi Susilawaty, Linda Noviana, Novin Teristiandi, Marulam MT Simarmata, Erick Nugraha, Maisarah, Yunnita Rahim, Arsyad Yunus, Triastuti, Reza Shah Pahlevi, Lailal Gusri, Jenny Delly. (2024). *Ekologi dan Lingkungan*. *1*.

Komisi Yudisial Republik Indonesia. (2024). *Bunga Rampai: Memotret Pertimbangan Putusan Hakim dari Berbagai Prespektif* (1st edn). Sekretariat Jenderal Komisi Yudisial Republik Indonesia. https://www.komisiyudisial.go.id/storage/assets/uploads/files/aGKnO6sj_Bunga%20Rampai%20isi%20All%20small.pdf

Wibowo, N. A., & Zulfiani, A. (2025). *Tindak Pidana Korupsi: Perampasan Aset, Implikasi UNCAC, dan Bentuk Kejahatan Baru* (1st edn). Yuma Pustaka.

Legal Documents:

The 1945 Constitution

Law No. 32 of 2009 concerning Environmental Protection and Management

Law No. 41 of 1999 concerning Forestry

Criminal Code of 2023

Criminal Procedure Code of 2025

Supreme Court Regulation No. 1 of 2023 concerning Guidelines for Adjudicating Environmental Cases

Decision No. 12/PDT/2012/PN Meulaboh

Decision No. 50/PDT/2014/PT Banda Aceh

Decision No. 651K/PDT/2015