

Discourse of the Implementation of International Principles in Cases of Forest Fires in Indonesia

Secondio Apristyan ^a✉, Tri Kurnia Agung Fidhata ^a

^a Faculty of Law, Universitas Negeri Semarang,
Indonesia

✉ Corresponding email: secondio@gmail.com

Abstract

Forest fires in Indonesia have become a recurring environmental crisis with widespread consequences. International principles and agreements provide frameworks for addressing such disasters, yet the translation of these principles into effective action at the national level remains challenging. This paper conducts a discourse analysis to examine the implementation of international principles in Indonesian forest fire cases. Drawing from policy documents, media reports, and scholarly literature, the study investigates Indonesia's adherence to these principles and the factors influencing their application. Findings reveal a complex landscape of challenges and opportunities. While Indonesia has made commitments to international agreements, such as the United Nations Framework Convention on Climate Change and the ASEAN Agreement on Transboundary Haze Pollution, translating these commitments into



Copyrights © Author(s). This work is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License. (CC BY-SA 4.0). All writings published in this journal are personal views of the author and do not represent the views of this journal and the author's affiliated institutions.

tangible policies and actions faces hurdles such as institutional capacity, governance issues, and conflicting interests. Moreover, the discourse surrounding forest fires involves diverse stakeholders, including government agencies, non-governmental organizations, and international bodies, each with varying perspectives and agendas. This research underscores the importance of understanding the dynamics of international environmental governance in addressing transboundary challenges like forest fires. By elucidating the discourse surrounding the implementation of international principles in Indonesian forest fire cases, this study contributes to advancing knowledge on global environmental governance and offers insights for fostering more effective collaboration among stakeholders to mitigate the impacts of future forest fire crises.

KEYWORDS *International Principles, Environmental Justice, Forest Fires, Environmental Law*

Introduction

Forest fires in Indonesia have emerged as a critical environmental issue with far-reaching implications for ecosystems, economies, and public health, both domestically and internationally. The recurring nature of these fires underscores the urgency of effective management strategies, prompting scrutiny of Indonesia's adherence to international principles and agreements aimed at mitigating such crises. This paper delves into the discourse surrounding the implementation of international principles in cases of forest fires in Indonesia.¹

¹ Wijayanto, Adi, Hatta Acarya Wiraraja, and Siti Aminah Idris. "Forest Fire and Environmental Damage: The Indonesian Legal Policy and Law Enforcement." *Unnes Law Journal* 8.1 (2022): 105-132; Ryadi, Arief, and Ali Masyhar. "Forest Fires and Law Enforcement: The Capture of Indonesian Contemporary Condition." *Journal of Law and Legal Reform* 2.1 (2021): 39-50; Najicha, Fatma Ulfatun, Ketut Rachmi, and Lego Karjoko. "Regulation of law enforcement in prevention and handling of fire forests in environmental hazards." *Medico-Legal Update* 21.1 (2021): 259-262.

The significance of this inquiry lies in the dual context of Indonesia's environmental challenges and its global commitments. Indonesia boasts one of the world's most biodiverse ecosystems, encompassing vast expanses of tropical forests that serve as crucial carbon sinks and habitats for diverse flora and fauna. However, the country's forests face persistent threats from deforestation, land conversion, and recurrent fire outbreaks, exacerbated by factors such as agricultural expansion, peatland degradation, and climate change.²

In response to these challenges, Indonesia has become a signatory to various international agreements and frameworks aimed at addressing environmental issues, including forest fires. These agreements encompass principles of sustainable forest management, emissions reduction, transboundary cooperation, and community involvement. However, the translation of these principles into effective policies and actions at the national level remains a subject of debate and scrutiny.³

Furthermore, Indonesia's natural environment, often described as a gift and grace from a higher power, holds profound significance for its people and nation. Rooted in the constitutional mandate of the 1945 Constitution, the utilization of natural resources, including the living environment, is intricately tied to the prosperity and well-being of the Indonesian populace. Article 33, paragraph (2) of the constitution stipulates that "*earth and water and the natural resources contained therein are controlled by the state and used for the greatest prosperity of the people.*"⁴

² Herawati, Hety, and Heru Santoso. "Tropical forest susceptibility to and risk of fire under changing climate: A review of fire nature, policy and institutions in Indonesia." *Forest Policy and Economics* 13.4 (2011): 227-233; Wuryandari, Utji Sri Wulan, Anggi Dewinta Chairani, and Myrna Asnawati Safitri. "Weak Investment Law Enforcement in Land and Forest Fire Cases in Indonesia." *Substantive Justice International Journal of Law* 5.2 (2022): 205-215.

³ Alisjahbana, Armida S., and Jonah M. Busch. "Forestry, forest fires, and climate change in Indonesia." *Bulletin of Indonesian Economic Studies* 53.2 (2017): 111-136; Tan, Alan Khee-Jin. "Forest fires of Indonesia: State responsibility and international liability." *International & Comparative Law Quarterly* 48.4 (1999): 826-855.

⁴ Rachman, Irfan Nur. "Politik Hukum Pengelolaan Sumber Daya Alam Menurut Pasal 33 UUD 1945." *Jurnal Konstitusi* 13.1 (2016): 195-212.

This constitutional provision underscores the dual responsibility of the Indonesian government: to safeguard its rich environmental heritage while harnessing its resources for the advancement of its citizens. However, the realization of this mandate faces formidable challenges, particularly in the context of forest fires that recurrently ravage Indonesia's forests, endangering ecosystems, livelihoods, and public health.

Although the state has the right to control and exploit natural resources in its constitutional territory, it also has the obligation of accountability by the people and the international community, the implementation of this responsibility is imbued with the principles and concepts of international environmental protection.

Indonesia grapples with numerous instances of purported violations of international environmental law, notably exemplified by the recurrent forest fires in Sumatra and Kalimantan.⁵ These conflagrations not only wreak havoc within Indonesia but also cast transboundary disruptions, impacting neighboring countries. In light of such crises, a pivotal question arises: do these incidents serve as a litmus test for the faithful application of international principles as prescribed by relevant regulations?

The transboundary nature of forest fires underscores the interconnectedness of environmental issues and the imperative for cross-border cooperation.⁶ As smoke blankets regions far beyond Indonesia's borders, exacerbating air pollution and jeopardizing public health, the need for effective governance and adherence to international norms becomes increasingly pressing. These incidents prompt scrutiny not only of Indonesia's compliance with its domestic regulations but also its

⁵ Budiningsih, Kushartati, et al. "Forest Management Units' Performance in Forest Fire Management Implementation in Central Kalimantan and South Sumatra." *Forests* 13.6 (2022): 894; Applegate, Grahame, et al. "Forest fires in Indonesia: impacts and solutions." *Which way forward*. Routledge, 2010, pp. 293-308.

⁶ Quah, Euston. "Transboundary pollution in Southeast Asia: the Indonesian fires." *World Development* 30.3 (2002): 429-441; Mayer, Judith. "Transboundary perspectives on managing Indonesia's fires." *The Journal of Environment & Development* 15.2 (2006): 202-223; Quah, Euston, and Helena Varkkey. "The political economy of transboundary pollution: mitigation of forest fires and haze in Southeast Asia." *The Asian Community: Its Concepts and Prospects* 323 (2013).

commitment to upholding international agreements aimed at mitigating environmental harm.

Against this backdrop, the discourse surrounding the implementation of international principles in cases of forest fires in Indonesia takes on heightened significance. As Indonesia grapples with the complex interplay between environmental conservation, economic development, and social welfare, the alignment of domestic policies with international standards becomes imperative. International agreements and frameworks offer guiding principles for sustainable forest management, emissions reduction, and transboundary cooperation, mirroring the constitutional imperative to prioritize the well-being of the Indonesian people.

This paper seeks to unpack the discourse surrounding the implementation of international principles in Indonesian forest fire cases. Through a nuanced examination of policy documents, media narratives, and scholarly discussions, it aims to elucidate the complexities, challenges, and opportunities inherent in Indonesia's efforts to align its domestic policies with international standards for forest fire management. By doing so, this research contributes to a deeper understanding of the dynamics of global environmental governance and offers insights for enhancing collaborative efforts to address transboundary environmental challenges.

Principles of International Environmental Law: Theories, Practices, and Contemporary Development

Human beings, as sentient organisms, possess faculties of reason, emotion, and cognition imbued with a sense of responsibility. Specifically, this responsibility manifests in the conscientious execution of diverse preventive and remedial measures aimed at ensuring the sustainability of media platforms.

The implementation of preventive measures and countermeasures within the context of media sustainability inherently intersects with the foundational tenets of international environmental law. Broadly, international environmental law encompasses three distinct categories of legal principles governing its formulation and implementation: general

legal principles, principles of general international law, and legal principles pertinent to international environmental concerns.⁷ These principles delineate the framework guiding action in the field of international environmental law and encompass:

1. Sovereignty over Natural Resources and Responsibility Not to Cause Harm to the Environment of Other States or to Areas Outside National Jurisdiction

Sovereignty encompasses both internal and external dimensions, wherein states interact with other entities under the framework of international law, thereby establishing rights and responsibilities.

A cornerstone principle of international law, sovereignty extends to the control over natural resources within a state's territory. The acknowledgment of sovereignty over natural resources finds its roots in UN General Assembly Resolution No. 1803 of 1962, which underscores the right of every nation to exercise permanent sovereignty over its natural resources, aligning with the interests of national development and the well-being of its populace. This sovereignty entails the authority to explore, develop, regulate, and engage in foreign investment within prescribed national regulations and conditions.

The concept of permanent sovereignty signifies the inherent entitlement of states to govern the exploitation and utilization of natural resources, while simultaneously considering the welfare of their citizens. Principle 21 of the Stockholm Declaration further reinforces this principle, affirming states' sovereign prerogative under the UN Charter and international legal principles to manage their natural resources, with the concomitant obligation to prevent environmental harm to other states or regions beyond national jurisdiction.

⁷ Yang, Tseming, and Robert V. Percival. "The Emergence of Global Environmental Law." *Ecology Law Quarterly* (2009): 615-664; Ebbesson, Jonas. "The notion of public participation in international environmental law." *Yearbook of International Environmental Law* 8.1 (1998): 51.

2. Precautionary Principles

The precautionary principle is enshrined in Principle 21 of the Stockholm Declaration and reiterated in the Rio Declaration. In the context of transboundary pollution, each sovereign state bears a dual responsibility: firstly, to undertake necessary measures in good faith, and secondly, to regulate both public and private activities within its jurisdiction.

This principle does not impose an absolute obligation to prevent harm but rather obligates each nation to avert actions that pose potential harm to the environment. Prevention, in this context, encompasses both protective and preservative measures.⁸

Prevention may be conceptualized as proactive measures aimed at averting detrimental activities, whereas preservation reflects a forward-looking perspective, considering the imperative of conserving natural resources for the needs of future generations.

3. Cooperation

This principle finds expression across a spectrum of international agreements, judgments rendered by the International Court of Justice, and the operational practices of sovereign states. The imperative for cooperative action in environmental conservation is underscored in non-binding texts, notably exemplified by Principle 24 of the Stockholm Declaration. Principle 24 articulates the necessity for such collaboration to extend not only between nation-states but also encompassing local communities, all within the parameters of good faith.⁹

⁸ Kriebel, David, et al. "The precautionary principle in environmental science." *Environmental Health Perspectives* 109.9 (2001): 871-876; Cameron, James, and Juli Abouchar. "The Precautionary Principle: A Fundamental Principle of Law and Policy for the Protection of the Global Environment." *Boston College International and Comparative Law Review* 14.1 (1991): 1.

⁹ Poorhashemi, Seyed Abbas, Sahar Zarei, and Yalda Khalatbari. "The Cooperation Principle in International Environmental Law." *Public Law Research* 15.39 (2013): 61-90; Desombre, Elizabeth R. "The Evolution of International Environmental Cooperation." *Journal of International Law & International Relations* 1.1-2 (2004): 76; Poorhashemi, Abbas. "International environmental law." *Public International Law*. Routledge, 2013, pp. 453-466.

Embedded within customary international law, international treaties, and judicial precedents, international legal frameworks mandate cooperative efforts for environmental safeguarding. These cooperative endeavors encompass a range of activities, including but not limited to, the exchange of information, sharing of scientific and technological advancements, allocation of financial resources, evaluation of environmental impacts, and collaboration in enforcing laws against transboundary pollution.

4. Polluters Pay

The polluter pays principle is a model for allocating and reducing environmental damage and holding accountability requests from polluters, both individuals, companies and states to bear the financing for pollution

The application of this principle is the allocation of economic obligations in relation to activities that endanger the environment, especially in terms of accountability, the use of economic instruments.¹⁰

The implementation of this principle is considered less than optimal in developing countries. Legislation and court rulings in developing countries establish an obligation for states to compensate victims of environmental damage. This action is taken to prevent further damage, if the polluting party has not been identified. Conditions like this occur a lot in developing countries where the poverty level is quite wide, the attraction of interests is quite strict and law enforcement is not clear.¹¹

5. Principles of Sustainable Development

Development endeavors are pursued by both developed and developing nations with the aim of enhancing the well-being of their respective populations. Embracing the principle of sustainable development, each nation is tasked with integrating environmental

¹⁰ Schwartz, Priscilla. "The polluter-pays principle." *Research Handbook on International Environmental Law*. Edward Elgar Publishing, 2010.

¹¹ Luppi, Barbara, Francesco Parisi, and Shruti Rajagopalan. "The rise and fall of the polluter-pays principle in developing countries." *International Review of Law and Economics* 32.1 (2012): 135-144.

conservation into its development strategies, as articulated in Principle 12 of the Stockholm Declaration:

"Taking into account the special circumstances and requirements of developing countries, efforts to improve the environment must be incorporated into their development planning. The costs of environmental protection measures necessitated by such integration should be borne by those who seek to promote development and, where this leads to significant environmental degradation, international assistance in finance and technology should be forthcoming to developing countries."

This principle underscores the imperative for nations to harmonize environmental preservation with developmental agendas, recognizing the distinct needs and challenges faced by developing countries. Moreover, it highlights the shared responsibility for financing and technological support to facilitate sustainable development practices, particularly in instances where environmental protection measures entail additional costs.¹²

6. The principle of responsibility

Shared responsibility applies to environmental resources both under the sovereignty of a state and outside the sovereignty of any state.¹³ This principle is controversial because it holds advanced industrial countries more accountable for their significant contribution to environmental damage. The distinction of responsibility aims to promote substantive

¹² Daly, Herman E. "Sustainable development: from concept and theory to operational principles." *Population and Development Review* 16 (1990): 25-43; Hermans, Frans, and Luuk Knippenberg. "A principle-based approach for the evaluation of sustainable development." *Journal of Environmental Assessment Policy and Management* 8.3 (2006): 299-319.

¹³ French, Duncan. "Developing states and international environmental law: The importance of differentiated responsibilities." *International & Comparative Law Quarterly* 49.1 (2000): 35-60; Atapattu, Sumudu. *Emerging Principles of International Environmental Law*. Vol. 7. Brill, 2007.

justice to developing countries, as well as to minimize environmental damage caused by industrial activities in developed countries.

Application of International Principles in the Case of Forest Fires in Indonesia

It is widely acknowledged within both the local community and neighboring countries that Indonesia experiences recurring forest fires, particularly in the forests of Sumatra and Kalimantan, on an annual basis. However, the precise cause of these fires remains uncertain, with speculation ranging from human activities to environmental factors such as prolonged dry seasons.

Nevertheless, Indonesia bears a responsibility to address and mitigate the impacts of these forest fires, adhering to international principles to safeguard the nation's well-being and security. By embracing these principles, Indonesia can enhance its efforts to maintain environmental stability and ensure the safety and welfare of its citizens.

In certain instances, Indonesia has been perceived as adhering to certain principles while neglecting others, notably evidenced in its implementation of the principles of Sovereignty over Natural Resources and Responsibility Not to Cause Harm to the Environment of Other Countries or to Areas Outside National Jurisdiction. An illustrative case occurred in 2006, wherein during the ASEAN Environment Ministers Meeting on October 13, 2006, Malaysia and Singapore raised concerns and urged Indonesia to address forest fires originating within its territory.¹⁴ These fires generated smoke that adversely affected the economies, public health, and tourism sectors of neighboring countries.

¹⁴ Tay, S., C. Lee, and L. Yi. "ASEAN approaches to environmental protection and sustainable development: cooperating across borders, sectors, and pillars of regional community." *S. Tay & JP Tijaja Global megatrends: Implication for the ASEAN economic community* (2017): 98-122; Varkkey, Helena. "40 Years of ASEAN Environmental Governance: Enhancing Asean Centrality Through the ASEAN Plus Three (APT)." *MJIR: Malaysian Journal of International Relations* 5.1 (2017): 47-65; Takahashi, Wakana. "Environmental Cooperation in Southeast Asia (ASEAN)." *Environment (ASPEN)* 1 (2001): 1994-98.

It is imperative for Indonesia to aspire towards a comprehensive integration of environmental protection within the global framework, prioritizing the public interest. By doing so, Indonesia can contribute to the establishment of effective mechanisms for addressing state responsibility and liability for harm inflicted upon other states. Such a system is envisioned to effectively mitigate injuries stemming from activities originating beyond national borders or from actions undertaken by countries or their citizens outside Indonesian territory. Through proactive engagement in global environmental initiatives, Indonesia can play a pivotal role in fostering international cooperation and accountability in safeguarding the planet's ecological well-being.

The principle of sustainable development stands as a crucial benchmark, yet its application appears neglected in the context of forest fires. Central to this principle is the notion of perpetuity and continuity in development processes. However, instances such as the forest clearing through burning for agricultural purposes, as witnessed in South Sumatra in 2014, demonstrate a stark departure from this principle. Rather than fostering enduring progress, such practices yield transient benefits while precipitating lasting environmental pollution and degradation.

Despite instances of negligence, Indonesia has demonstrated commitment to several principles of international environmental law, including prevention, cooperation, polluter pays, sustainable development, and shared responsibility. Notably, efforts to prevent forest fires underscore Indonesia's adherence to the principle of prevention, as evidenced by Article 23 of Government Regulation Number 45 of 2004. This regulation outlines measures aimed at forest fire prevention, aligning with the principles articulated in Article 20, Paragraph (1), Letter (a).

In the realm of international environmental law principles, cooperation is exemplified through collaborative efforts in addressing environmental challenges. This cooperation is evident in various forms of international assistance, such as the collective endeavors to suppress forest fires. During the forest fires that occurred in Indonesia in 1997, assistance was extended in multiple forms, including financial aid and direct intervention.

For instance, the deployment of the UNDAC emergency response team, supported by funding totaling Rp.1,250 million and US\$500,000,

exemplifies international cooperation in crisis management. Additionally, the Australian government provided substantial assistance amounting to Rp.1,800 million and US\$720,000 in cash. These contributions, alongside other forms of aid from various countries, underscore the collaborative response to forest fire emergencies, highlighting the spirit of international solidarity in addressing environmental crises.

Furthermore, various cooperation agreements under international environmental law have been established to address environmental challenges. Notably, on April 30 to May 1, 1981, in Manila, the first meeting of Environment Ministers successfully formulated environmental policies for the ASEAN region, culminating in the Manila Declaration on the ASEAN Environment. This declaration laid the groundwork for collaborative environmental efforts within the ASEAN regional context.

In addition, the principle of polluter pays has been exemplified in Indonesia's response to the forest fires of 2014. In this instance, a significant forest fire incident occurred, covering an area of 20 thousand hectares in the district of Ogan Komering Ilir (OKI), South Sumatra. Subsequently, the polluter was held accountable for the costs incurred due to their actions, as mandated by a court decision.

The Palembang High Court's Decision Number 51/PDT/2016/PT. PLG illustrates the application of the principle of polluter pays in addressing environmental damages. In this landmark case, the court rendered a verdict that encapsulates both accountability and restitution. PT. BUMI MEKAR HIJAU, the defendant/appellant, was found culpable for its actions, with the court ruling in favor of the plaintiff/comparator. The defendant/appellant was ordered to pay substantial compensation amounting to Rp. 78,502,500,000.00 (seventy-eight billion five hundred two million five hundred thousand rupiah) to the plaintiff/comparator, reflecting the principle that those responsible for environmental harm must bear the financial burden of remediation. Moreover, the court mandated the defendant/appellant to cover the legal costs incurred throughout the judicial process, reinforcing the principle of accountability for environmental misconduct. However, while justice was served in this instance, it is crucial to acknowledge that environmental damages extend

beyond monetary compensation and necessitate comprehensive efforts towards restoration and prevention.¹⁵

Furthermore, the principle of shared responsibility but different underscores the collaborative approach to addressing environmental challenges, particularly in the context of forest fires. Neighboring countries have actively participated in assisting Indonesia during forest fire emergencies, emphasizing the collective responsibility for environmental stewardship. This principle acknowledges that while nations may have differing capacities and resources, they share a common obligation to protect the global environment. Through coordinated efforts, countries contribute to mitigating the impacts of environmental crises and safeguarding ecosystems for future generations. The assistance provided by neighboring countries in combatting forest fires in Indonesia exemplifies the spirit of international cooperation and solidarity in confronting environmental threats on a global scale.

Conclusion

In conclusion, the principles of international environmental law serve as fundamental guidelines for addressing environmental challenges on a global scale. These principles encompass a range of key tenets, including sovereignty over natural resources, precautionary measures, cooperation,

¹⁵ See Silalahi, Irene Cristna. *Kedudukan Pasal 88 Undang-Undang Nomor 32 Tahun 2009 Tentang Perlindungan dan Pengelolaan Lingkungan Hidup Mengenai Strict Liability Terhadap Pelaku Tindak Pidana Perusakan dan/atau Pencemaran Lingkungan Hidup (Putusan PT. Palembang Nomor: 51/PDT/2016/PT. PLG)*. Diss. Universitas Sumatera Utara, 2018; Anggrainy, Putri. *Tinjauan Hukum Ekonomi Syariah Terhadap Ganti Rugi Dalam Kasus Pembakaran Hutan (Studi Terhadap Putusan Hakim Pengadilan Tinggi Palembang Nomor 51/PDT/2016/PT. PLG)*. Diss. Universitas Islam Negeri Raden Fatah, 2018; Seta, Heribertus Pandu. *Upaya Hukum Banding Atas Dasar Perbuatan Melawan Hukum Yang Dikabulkan Dalam Perkara Lingkungan Hidup (Studi Terhadap Putusan Nomor 51/PDT/2016/PT. PLG juncto Putusan Nomor 24/PDT. G/2015/PN. PLG)*. Diss. Universitas Jenderal Soedirman, 2019; Sadino, Sadino, Hotman Sitorus, and Muhamad Zainal Arifin. "Legal analysis on the calculation of loss value for the case of industrial forest fire (Case study verdict No. 24/Pdt. G/2015/PN. PlgjoNo. 51/PDT/2016/PT. PLG)." *IOP Conference Series: Earth and Environmental Science*. Vol. 504. No. 1. IOP Publishing, 2020.

polluter pays, sustainable development, and shared responsibility but different. While some of these principles have been effectively applied in addressing issues such as forest fires, others have been subject to negligence or oversight.

Notably, the principles of sovereignty over natural resources and responsibility not to cause harm to the environment beyond national borders, as well as sustainable development, have faced challenges in implementation. However, commendable efforts have been made by both Indonesia and the international community in adhering to and promoting these principles. Despite shortcomings, collaborative actions, such as international assistance during forest fire emergencies, demonstrate a commitment to shared responsibility and environmental stewardship.

Moving forward, continued efforts are required to ensure the comprehensive application of these principles, fostering sustainable environmental management and safeguarding the well-being of both current and future generations. Through collective action and adherence to international environmental law, nations can address environmental challenges effectively and promote a more resilient and harmonious global ecosystem.

References

- Alisjahbana, Armida S., and Jonah M. Busch. "Forestry, forest fires, and climate change in Indonesia." *Bulletin of Indonesian Economic Studies* 53.2 (2017): 111-136.
- Anggrainy, Putri. *Tinjauan Hukum Ekonomi Syariah Terhadap Ganti Rugi Dalam Kasus Pembakaran Hutan (Studi Terhadap Putusan Hakim Pengadilan Tinggi Palembang Nomor 51/PDT/2016/PT. PLG)*. Diss. Universitas Islam Negeri Raden Fatah, 2018.
- Applegate, Grahame, et al. "Forest fires in Indonesia: impacts and solutions." *Which way forward*. Routledge, 2010, pp. 293-308.
- Atapattu, Sumudu. *Emerging Principles of International Environmental Law*. Vol. 7. Brill, 2007.

- Budiningsih, Kushartati, et al. "Forest Management Units' Performance in Forest Fire Management Implementation in Central Kalimantan and South Sumatra." *Forests* 13.6 (2022): 894.
- Cameron, James, and Juli Abouchar. "The Precautionary Principle: A Fundamental Principle of Law and Policy for the Protection of the Global Environment." *Boston College International and Comparative Law Review* 14.1 (1991): 1.
- Daly, Herman E. "Sustainable development: from concept and theory to operational principles." *Population and Development Review* 16 (1990): 25-43.
- Desombre, Elizabeth R. "The Evolution of International Environmental Cooperation." *Journal of International Law & International Relations* 1.1-2 (2004): 76.
- Ebbesson, Jonas. "The notion of public participation in international environmental law." *Yearbook of International Environmental Law* 8.1 (1998): 51.
- French, Duncan. "Developing states and international environmental law: The importance of differentiated responsibilities." *International & Comparative Law Quarterly* 49.1 (2000): 35-60.
- Herawati, Hety, and Heru Santoso. "Tropical forest susceptibility to and risk of fire under changing climate: A review of fire nature, policy and institutions in Indonesia." *Forest Policy and Economics* 13.4 (2011): 227-233.
- Hermans, Frans, and Luuk Knippenberg. "A principle-based approach for the evaluation of sustainable development." *Journal of Environmental Assessment Policy and Management* 8.3 (2006): 299-319.
- Kriebel, David, et al. "The precautionary principle in environmental science." *Environmental Health Perspectives* 109.9 (2001): 871-876.
- Luppi, Barbara, Francesco Parisi, and Shruti Rajagopalan. "The rise and fall of the polluter-pays principle in developing countries." *International Review of Law and Economics* 32.1 (2012): 135-144.
- Mayer, Judith. "Transboundary perspectives on managing Indonesia's fires." *The Journal of Environment & Development* 15.2 (2006): 202-223.

- Najicha, Fatma Ulfatun, Ketut Rachmi, and Lego Karjoko. "Regulation of law enforcement in prevention and handling of fire forests in environmental hazards." *Medico-Legal Update* 21.1 (2021): 259-262.
- Poorhashemi, Abbas. "International environmental law." *Public International Law*. Routledge, 2013, pp. 453-466.
- Poorhashemi, Seyed Abbas, Sahar Zarei, and Yalda Khalatbari. "The Cooperation Principle in International Environmental Law." *Public Law Research* 15.39 (2013): 61-90.
- Quah, Euston, and Helena Varkkey. "The political economy of transboundary pollution: mitigation of forest fires and haze in Southeast Asia." *The Asian Community: Its Concepts and Prospects* 323 (2013).
- Quah, Euston. "Transboundary pollution in Southeast Asia: the Indonesian fires." *World Development* 30.3 (2002): 429-441.
- Rachman, Irfan Nur. "Politik Hukum Pengelolaan Sumber Daya Alam Menurut Pasal 33 UUD 1945." *Jurnal Konstitusi* 13.1 (2016): 195-212.
- Ryadi, Arief, and Ali Masyhar. "Forest Fires and Law Enforcement: The Capture of Indonesian Contemporary Condition." *Journal of Law and Legal Reform* 2.1 (2021): 39-50.
- Sadino, Sadino, Hotman Sitorus, and Muhamad Zainal Arifin. "Legal analysis on the calculation of loss value for the case of industrial forest fire (Case study verdict No. 24/Pdt. G/2015/PN. PlgjoNo. 51/PDT/2016/PT. PLG)." *IOP Conference Series: Earth and Environmental Science*. Vol. 504. No. 1. IOP Publishing, 2020.
- Schwartz, Priscilla. "The polluter-pays principle." *Research Handbook on International Environmental Law*. Edward Elgar Publishing, 2010.
- Seta, Heribertus Pandu. *Upaya Hukum Banding Atas Dasar Perbuatan Melawan Hukum Yang Dikabulkan Dalam Perkara Lingkungan Hidup (Studi Terhadap Putusan Nomor 51/PDT/2016/PT. PLG juncto Putusan Nomor 24/PDT. G/2015/PN. PLG)*. Diss. Universitas Jenderal Soedirman, 2019.
- Silalahi, Irene Cristna. *Kedudukan Pasal 88 Undang-Undang Nomor 32 Tahun 2009 Tentang Perlindungan dan Pengelolaan Lingkungan Hidup Mengenai Strict Liability Terhadap Pelaku Tindak Pidana*

- Perusakan dan/atau Pencemaran Lingkungan Hidup (Putusan PT. Palembang Nomor: 51/PDT/2016/PT. PLG).* Diss. Universitas Sumatera Utara, 2018.
- Takahashi, Wakana. "Environmental Cooperation in Southeast Asia (ASEAN)." *Environment (ASPEN)* 1 (2001): 1994-98.
- Tan, Alan Khee-Jin. "Forest fires of Indonesia: State responsibility and international liability." *International & Comparative Law Quarterly* 48.4 (1999): 826-855.
- Tay, S., C. Lee, and L. Yi. "ASEAN approaches to environmental protection and sustainable development: cooperating across borders, sectors, and pillars of regional community." *S. Tay & JP Tijaja Global megatrends: Implication for the ASEAN economic community* (2017): 98-122.
- Varkkey, Helena. "40 Years of ASEAN Environmental Governance: Enhancing Asean Centrality Through the ASEAN Plus Three (APT)." *MJIR: Malaysian Journal of International Relations* 5.1 (2017): 47-65.
- Wijayanto, Adi, Hatta Acarya Wiraraja, and Siti Aminah Idris. "Forest Fire and Environmental Damage: The Indonesian Legal Policy and Law Enforcement." *Unnes Law Journal* 8.1 (2022): 105-132.
- Wuryandari, Utji Sri Wulan, Anggi Dewinta Chairani, and Myrna Asnawati Safitri. "Weak Investment Law Enforcement in Land and Forest Fire Cases in Indonesia." *Substantive Justice International Journal of Law* 5.2 (2022): 205-215.
- Yang, Tseming, and Robert V. Percival. "The Emergence of Global Environmental Law." *Ecology Law Quarterly* (2009): 615-664.

DECLARATION OF CONFLICTING INTERESTS

The authors state that there is no conflict of interest in the publication of this article.

FUNDING INFORMATION

None

ACKNOWLEDGMENT

None

HISTORY OF ARTICLE

Submitted : February 21, 2022

Revised : June 11, 2022; October 21, 2022; December 11, 2022

Accepted : January 15, 2023

Published : January 31, 2023