

REVISITING LEGAL AND ETHICAL CHALLENGES IN FULFILLING HUMAN RIGHT TO CLEAN AIR IN INDONESIA

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ABSTRACT

Pro-investment and development government policies to achieve people's welfare can potentially violate human right to clean air through business activities that contribute to air pollution. In Jakarta, this condition led to a public lawsuit against the central and regional governments, who were considered liable for the air pollution and harm suffered by the community. This study reviews the concept of the right to clean air as a human right and analyzes the legal and ethical challenges in fulfilling human right to clean air in Indonesia. The discussion includes the relationship between business and human rights, the concept of clean air as a human right and a review of the legal framework to enforce liability and accommodate legal remedies and the private initiatives to drive and implement more responsible choices to reduce air pollution. The method used in this study was a literature study with data analyzed qualitatively. The paper concludes that people's right to clean air is a fundamental human right. The fulfillment of human right to clean air can be driven by state's power to impose regulation and the implementation of ethical and responsible business activities by corporations. The government needs to strengthen regulations related to air pollution control and business legal compliance, notably strengthening applicable air quality standards in accordance with evidence-based, internationally recognized standards to protect public health. Similarly, corporations should act as "moral agents" who apply ethical behaviors in their business activities to minimize air pollution.

Keywords: clean air; air quality standard; human rights; right to clean air.

INTRODUCTION

Breathing clean air is as vital as eating healthy and nutritious food. The vital role of air in human life cannot be denied. However, the 2021 World Air Quality report released by IQAir shows that only three percent of cities worldwide meet the latest air quality guidelines of the World Health Organization (WHO). The report also shows that air quality in big cities in Indonesia is still a dangerous category for public health.¹ Jakarta was named the city with the worst air quality in Indonesia, where the average annual concentration of PM 2.5² reached 39.2 g/ m³ which exceeds

WHO standards by up to seven times.³ In June 2022, Jakarta was even listed as the city with the worst air quality in the world. The concentration of PM2.5 in the air in Jakarta exceeded 15.8 times the WHO standard.⁴

Motorized vehicles are the primary cause of high exposure to outdoor air pollution in urban areas, such as Jakarta. The emissions of air pollutants will continue to increase with the increasing number of private motorized vehicles.⁵ Other major sources of pollutant emissions

1 IQAir, "2021 World Air Quality Report," 2021. The report has applied 2020 WHO guideline that increases air quality standards by lowering the annual PM2.5 parameter from 10 g/m³ to 5 g/m³.

2 PM2.5 is recognized as the most dangerous air pollutant and is used as the main parameter for air quality monitoring because it is the main factor causing health problems.

3 IQAir, "2021 World Air Quality Report," 16.

4 CNN Indonesia, "Jakarta Kerap Juara Udara Terburuk Dunia, dari Mana Polusinya?," September 26, 2022, <https://www.cnnindonesia.com/teknologi/20220922144723-199-851308/jakarta-kerap-juara-udara-terburuk-dunia-dari-manapolusinya>.

5 Budi Haryanto and Peter Franklin, "Air Pollution: A Tale of Two Countries," *Reviews on Environmental Health* 26, no. 1 (2011): 55, <https://doi.org/10.1515/REVEH.2011.008>.

include power generation activities, residential energy needs, agricultural activities, and industrial activities. The greater Jakarta area is surrounded by numerous coal-fired power plants. All these emissions release toxic pollutants into the air including nitrogen dioxide (NO₂), ozone (O₃), sulfur dioxide (SO₂), mercury, lead, arsenic, cadmium, and PM2.5.⁶

Globally, Indonesia is also associated with non-natural forest fires, a primary source of air pollutants that harm affected areas and across national borders. Forest fires affect ecosystems and release emissions into the atmosphere thereby degrading regional air quality. They contribute to greenhouse gas concentrations that consecutively spur global warming.⁷

Air pollution contributes to physical and mental health problems that can reduce the quality of life. Studies by Guillerm and Cesari (2015)⁸, Haryanto (2018)⁹, Simon (2018)¹⁰ and Farrow et.al. (2020)¹¹ showed that exposure to air pollutants or a combination of air pollutants is associated with an increase in diseases such as ischemic heart disease

(IHD), chronic obstructive pulmonary disease (COPD), lung cancer, respiratory infections, underweight, premature birth, type II diabetes, stroke, and asthma. Greenpeace projects that pollution across Indonesia will result in 10,600 premature deaths and 2,800 low birth weight births per year, almost half of which are in Greater Jakarta.¹²

The above conditions show that industrial activities are like a double-edged sword. They promote economic growth by boosting the production of goods and services and increasing employment opportunities which in turn improve the quality of life. This is in line with the direction of the Government of Indonesia's development policy which continues to encourage investment activities by issuing various policies and regulations to facilitate the down streaming of business and industry. However, such activities also produce waste and contribute to environmental pollution and can cause damage to natural resources.¹³

This study argues that pro-investment and development government policies to achieve people's welfare have the potential to violate human right to clean air, by incentivizing business activities that contribute to air pollution. In Jakarta, this has been the background of a public lawsuit against central and regional governments which are considered responsible for air pollution and the subsequent losses suffered by the community. The discourse relating to clean air, although long included in the realm of the administrative policies of governments, has now increasingly emerged as an issue of the rights of individuals and communities, especially those harmed by air pollution.¹⁴ Framing the right to clean air as a human right has been subject to debate on

6 Greenpeace Indonesia, "Jakarta's Silent Killer" (Jakarta: Greenpeace South East Asia, October 2017), <https://www.greenpeace.org/static/planet4-southeastasia-stateless/2020/10/48d34259-jakartas-silent-killer-report-oct-24-2017-1.pdf>.

7 Budi Haryanto, "Climate Change and Urban Air Pollution Health Impacts in Indonesia," in *Climate Change and Air Pollution: The Impact on Human Health in Developed and Developing Countries*, ed. Rais Akhtar and Cosimo Palagiano, Springer Climate (Cham: Springer, 2018), 220.

8 N. Guillerm and G. Cesari, "Fighting Ambient Air Pollution and Its Impact on Health: From Human Rights to the Right to a Clean Environment," *The International Journal of Tuberculosis and Lung Disease*, State of the Art, 19, no. 8 (2015): 887–97, <http://dx.doi.org/10.5588/ijtld.14.0660>.

9 Haryanto, "Climate Change and Urban Air Pollution Health Impacts in Indonesia." Haryanto noted that vehicle emissions and air pollution are believed to be a significant contributor to acute upper respiratory tract infection, accounting for 63% of the to(tal Jakarta citizens who visit the local health centers (*pusat kesehatan masyarakat*—"Puskesmas") (p.217).

10 Sarah J. Simon, *Protecting Clean Air: Preventing Pollution*, 1st ed. (Place: Momentum Press, 2018).

11 Aidan Farrow, Kathryn A. Miller, and Lauri Myllyvirta, "Toxic Air: The Price of Fossil Fuels" (Greenpeace South East Asia, February 2020).

12 Greenpeace Indonesia, "Jakarta's Silent Killer," 3.

13 Supraptini, "Pengaruh Limbah Industri Terhadap Lingkungan di Indonesia," *Media Penelitian dan Pengembangan Kesehatan* 12, no. 2 (June 2002): 10.

14 See Delphine Misonne, "The Emergence of a Right to Clean Air: Transforming European Union Law through Litigation and Citizen Science," *Review of European, Comparative & International Environmental Law* 30, no. 1 (May 6, 2020): 34–45, <https://doi.org/10.1111/reel.12336>.

conceptual complexities.¹⁵

This study, therefore, aims to review the concept of the right to clean air as a human right and to analyze the legal and ethical challenges in fulfilling the human right to clean air in Indonesia. The discussion includes the relationship between business and human rights; the concept of clean air as a human right; the legal and ethical challenges to enforce obligations and accommodate legal remedies; and private initiatives to promote and implement more responsible options for reducing air pollution.

METHOD

This paper draws from a literature review. The data collected were in the form of secondary data which include general and specific references, manuals, research reports, theses, dissertations, journals and other materials.¹⁶ The data have subsequently been analyzed using a qualitative approach to extract findings and conclusions.

FINDINGS AND DISCUSSION

A. The Relationship between Business and Human Rights

The evolution in business development is one of the main causes of air pollution. This evolution was driven by the industrial revolution and the rise of modern corporations. The industrial revolution and the concept of labor division have resulted in changes in production patterns. Production is encouraged to increase the quantity of production in order to pursue profits.¹⁷ Air pollution has a long history and is already a problem for pre-modern societies, with the burning of biomass and fossil fuels damaging human health and the local environment.¹⁸ However, the rise of modern urban

industrialism and the change in the way people live to produce energy (shift from firewood to coal and then to oil) has expanded the scale of the air pollution problem.¹⁹

The rise of modern corporations and the evolution of the ownership structure have also changed the paradigm of running a business from direct control to handing over management to professional managers giving rise to the principal-agent relationships. Corporate managers are bound to maximize profits. In a complex business structure, the owners of capital as principals increasingly lose control of their funds and how they are used and allocated. A corporation is nothing more than a piece of paper, and the ownership structure can change at any time.²⁰

The concept of corporate responsibility continues to evolve in line with the magnitude of the impact of business activities on society and the environment. Classical discourse on the scope of corporate responsibility has also debated whether corporate managers only need to focus on maximizing business profits and are only responsible to capital owners or whether there is a need to consider the interests of other stakeholders.²¹ From the view that corporate managers are only responsible to capital owners, all policies that fall outside the profit maximization objective are deemed as costs, thereby violating managers' fiduciary duty.²² However, in line with the development of the triple bottom line approach²³, today's corporations globally recognize

15 See, e.g., Sava Jankovic, "Conceptual Problems of the Right to Breathe Clean Air," *German Law Journal* 22, no. 2 (March 2021): 168–83, <https://doi.org/10.1017/glj.2021.1>.

16 Mohammad Nazir, *Metode Penelitian* (Jakarta: Ghalia Indonesia, 2003), 27.

17 Simon, *Protecting Clean Air: Preventing Pollution*.

18 Stephen Mosley, "Environmental History of Air Pollution and Protection," ed. Mauro Agnoletti and Simone Neri Seneri, vol. 4, *Environmental History*

(Heidelberg, New York, Dordrecht, London: Springer, 2014), 144.

19 Mosley, 144.

20 Lisa H. Newton, *Business Ethics and the Natural Environment*, 1st ed., *Foundations of Business Ethics* (Malden, Oxford, Victoria: Blackwell Publishing, 2005).

21 E. Merrick Dodd, "For Whom Are Corporate Managers Trustees?," *Harvard Law Review* 45 (May 8, 1932): 1145–63, <https://doi.org/10.2307/1331697>; A. A. Berle, "For Whom Corporate Managers Are Trustees: A Note," *Harvard Law Review* 45 (June 1932): 1365–72, <https://doi.org/10.2307/1331920>.

22 Milton Friedman, "The Social Responsibility of Business Is to Increase Its Profits," *The New York Times*, September 13, 1970, 17.

23 'People' refers to the business' impact on workers

the importance of being good corporate citizens who respect human rights, especially the rights of those affected by business activities.²⁴ Respecting and protecting human rights by corporations is an obligation that has a moral foundation.

For the business world, respecting and supporting the protection of human rights should not only be seen as a burden or cost but can be beneficial and profitable for the corporation itself. Respecting human rights plays a role in creating an environment to enhance the pursuit of efficient and effective corporate profitability. Respecting human rights can also foster good public relations, reduce security and reputation risks, and help build a corporation's reputation.²⁵

In driving the acknowledgement and protection of human rights by corporations, Cragg identified three models of the relationship between corporations and human rights: the legal model, self-regulatory capital, and the draft-norm model.²⁶ In the legal model, corporate obligations concerning human rights are indirect. Corporation's liability is limited to laws made by the jurisdiction of the country where the corporation is located and operates. In these cases, laws set minimum standards for corporate moral obligations in respecting and protecting human rights. In the self-regulatory model, corporations have direct human rights obligations. These obligations are set out and articulated in a voluntary code of ethics, which can be made by individual corporation,

intergovernmental institutions, and international government agencies. In the draft norm model, corporations are directly responsible to human rights holders to protect and promote various human rights, which were previously understood as the sole responsibility of the government.

An example of a draft norm model can be seen in the United Nations Guiding Principles (UNGPs) framework which was established by the Human Rights Council in Resolution 17/4 in June 2011. Based on UNGPs, the obligation to protect human rights is borne not only by the state but also collectively, directly to corporations. Enforcement and protection of human rights is a shared responsibility, not only a state monopoly but also borne by corporations.²⁷

Using the legal model to protect human rights means that these rights are regulated as legal rights by laws and regulations, which are a form of protection by the state. The laws made are coercive in terms of setting standards of behavior and compliance of corporations, including establishing a system of sanctions and legal remedies in case of violations that harm the community. Law is a form of realization of the role and responsibility of the state in protecting and accommodating human rights. However, regarding this model, it should be noted that the law is not always ideal. From the perspective of legal dysfunction, the law facilitates inequality by serving individual interests rather than the welfare of society, thereby hindering the fulfilment of human rights.²⁸

According to Cragg, multinational corporations (in the context of this study, including those that contribute to air pollution) can influence the formation of various trade agreements, which then influence the politics of legislation in the jurisdiction of countries where the law applies,

and society. 'Planet' refers to business' efforts in minimizing environmental impact. 'Profit' refers to the business' pursuit of financial gains.

24 John Elkington, "Towards the Sustainable Corporation: Win-Win Business Strategies for Sustainable Development," *California Management Review* 36, no. 2 (1994): 90-100.

25 Wesley Cragg, "Human Rights, Globalisation and the Modern Shareholder Owned Corporation," in *Human Rights and the Moral Responsibilities of Corporate and Public Sector Organisations*, ed. Tom Campbell and Seumas Miller, vol. 20, Issues in Business Ethics (New York, Boston, Dordrecht, London, Moscow: Kluwer Academic Publishers, 2004), 125.

26 Wesley Cragg, "Business and Human Rights: A Principle and Value-Based Analysis," in *Business and Human Rights*, ed. Wesley Cragg (Cheltenham, UK, Northampton, MA, USA: Edward Elgar, 2012).

27 UN Office of the High Commissioner for Human Rights, "Guiding Principles on Business and Human Rights: Implementing the United Nations 'Protect, Respect and Remedy' Framework" (New Jersey & Geneva, 2011), https://www.ohchr.org/sites/default/files/documents/publications/guidingprinciplesbusinesshr_en.pdf.

28 Matthew R. Lippman, *Law and Society*, 2nd ed. (Thousand Oaks, CA: SAGE Publications, 2017), 11.

resulting in a benefit to those corporations.²⁹ Multinational corporations can also choose their place of operation or offshoring, not only for economic reasons but also to reduce regulatory constraints by being able to choose a jurisdiction where applicable laws will benefit them.³⁰ This strategy has implications for the protection of human rights in the fields of health, safety, wages, and the natural environment. Multinational corporations can choose a place to operate with lower environmental protection legal standards while still appearing to be good corporate citizens in the community as they meet legal compliance.

The scope of law is narrower than that of morals.³¹ Therefore, respecting and protecting human rights should be driven by moral foundations. In the self-regulatory model approach, ethical preferences drive the protection of human rights. Critical awareness, which includes reasons and emotions to care for and endure certain situations, drives the choice to act ethically.³² Based on this ethical awareness, corporations will use their resources to promote human rights and engage in efforts to influence changes in the behavior of others to respect human rights.³³ Such behavior is based on the corporation's code of ethics or general guidelines. However, ethics is disconnected from official sanctions because the application is voluntary. Thus, if the

implementation of corporate responsibility for the fulfilment of human rights is based solely on the self-regulation model, there is no legal sanction that can be imposed by the state when corporations do not implement it.

Hence, the third approach adopted by UNGPs is a middle ground that can position the state and corporations as parties who both have a role in protecting of human rights. UNGPs are based on three main principles: state duty, corporate responsibility, and restoration of the rights of victims of human rights violations in business. The state has a duty to ensure that non-state actors, including corporations, do not violate the human rights of its citizens. This duty can be implemented by formulating rules and policies and implementing an effective judicial process. Corporations must comply with applicable laws and conduct their businesses while respecting human rights. Corporations must make every effort to avoid violations of the human rights of others and must address the impacts that occur in terms of human rights violations that they commit. The corporations' role can be realized by making corporate policies and regulations based on respect for human rights and conducting human rights due diligence to identify, prevent, reduce, and explain their efforts to overcome the impact of human rights violations. As for the third principle, the state and corporations share the responsibility to ensure access to effective remedies for victims of human rights violations. The state is obliged to provide both judicial and non-judicial recovery mechanisms. Corporations must also create an effective internal recovery mechanism so victims can advocate for their rights optimally.

For example, the fast-fashion industry can illustrate the issue of state and business responsibilities in upholding human rights. In the fast fashion business model, fashion retailers increase the quantity frequency of production, launch fashion products, and utilize cheap materials in production. These result in a lower selling price point that is affordable and can be accessed quickly by consumers but still provides

29 Cragg, "Business and Human Rights: A Principle and Value-Based Analysis," 19.

30 See, e.g., Terry Halbert and Elaine Ingulli, *Law & Ethics in the Business Environment*, 6th ed. (Mason, OH: South-Western Cengage Learning, 2009), 9–12; Luis Encinas, "Ethical Dilemmas Surrounding Manufacturing Offshoring: Assessing the Morality of Offshoring Decisions Through a Utilitarian Viewpoint" (Honors Scholar Theses, University of Connecticut, 2019), https://opencommons.uconn.edu/srhonors_theses/642/.

31 Georgeta-Bianca Spîrchez, "The Relation Between Ethics and Law," *Fiat Iustitia* 1 (2016): 1.

32 Halbert and Ingulli, *Law & Ethics in the Business Environment*, 1.

33 Tom Campbell, "Rights and Responsibilities," in *Human Rights and the Moral Responsibilities of Corporate and Public Sector Organisations*, ed. Tom Campbell and Seumas Miller, vol. 20, Issues in Business Ethics (New York, Boston, Dordrecht, London, Moscow: Kluwer Academic Publishers, 2004), 17.

a high-profit margin.³⁴ To reduce production costs, fashion businesses source their products from developing countries with less stringent legal standards and enforcement, particularly on labor rights and welfare. This business strategy has put the fast fashion industry in the spotlight because of human rights abuse.

Bangladesh's experience with labor issues provides an example of the human rights challenges within the fast fashion industry. Bangladesh is the second-largest garment exporter in the world, where the garment industry contributes 80 percent to the country's total export earnings. The country is one of the major manufacturing sites for fast fashion businesses. In 2012 and 2013, two significant incidents occurred, the Tazreen garment factory fire with 117 death and the Rana Plaza collapse, which killed 1100 workers and injured thousands of others. These tragedies portray a culmination of legal and human rights problems in the Bangladeshi garment industry, such as insufficient wage standards to meet a decent standard of living, overworking workers to pursue profit targets, exploitation of female workers, and neglect of work safety.³⁵

The Tazreen factory fire and the Rana Plaza collapse became turning points where the Government of Bangladesh finally stepped up to improve the regulatory framework for welfare and labor protection. Clothing retailers are becoming more aware of and proactive in addressing labor safety and rights.³⁶ The Rana Plaza incident also pushed the enactment of the Bangladesh

Accord, a cross-stakeholder binding agreement (between workers, factory managers, and clothing businesses) that stipulates, among other things, work safety inspection standards and a complaint mechanism in the event of a violation.³⁷ The incidents then led to \$77 million in compensation for the victims' families, co-funded by retailers who manufacture in the factories, the Government of Bangladesh, BGMEA³⁸, and the factory owners. In addition, the Bangladesh Police charged 41 people associated with the Rana Plaza collapse with murder.³⁹

The Bangladesh case study highlights the roles and responsibilities of the state and corporations in addressing human rights issues. As a regulator, the state must accommodate a legal framework that protects labor and stringent law enforcement. As corporations, factory owners and fashion retailers are also responsible for avoiding violations of law and human rights in their business. Law enforcement against offenders, the compensation given to victims, and the reform movement demonstrated the efforts of the state and corporations to restore victims' rights, provide remedies and prevent future violations.

B. The Right to Clean Air as a Human Rights

1. The Concept of Clean Air

Understanding the conceptual boundaries of clean air is essential to clarify its position as a human right. What is meant by clean air that is a human right? This fundamental question corresponds with Bryner's query: 'if there is a right to a healthy environment, how healthy must it be?'⁴⁰

34 Mary Azubuike, "The Price of Fast Fashion: How Consumerism Fuels the Climate Crisis and Threatens Human Rights," January 26, 2021, <https://www.humanrightspulse.com/mastercontentblog/the-price-of-fast-fashion-how-consumerism-fuels-the-climate-crisis-and-threatens-human-rights>.

35 Peter Stanwick and Sarah Stanwick, "The Garment Industry in Bangladesh: A Human Rights Challenge," *Journal of Business & Economic Policy* 2 (4) (December 2015): 40–44.

36 Nazila Fathi, "Safety First: Bangladesh Garment Industry Rebounds," *IFC Insights*, November 2019, https://www.ifc.org/wps/wcm/connect/news_ext_content/ifc_external_corporate_site/news+and+events/news/insights/bangladesh-garment-industry.

37 Shivani Mehta, "Garment Worker Exploitation: An International Human Rights Problem," *Human Rights Pulse: Make Justice a Priority* (blog), August 2020, <https://www.humanrightspulse.com/mastercontentblog/garment-worker-exploitation-an-international-human-rights-problem>.

38 Bangladesh Garment Manufacturers and Exporters Association

39 Stanwick and Stanwick, "The Garment Industry in Bangladesh: A Human Rights Challenge," 42.

40 Nicholas Bryner, "A Constitutional Right to a Healthy Environment," in *Research Handbook on Fundamental Concepts of Environmental Law*, ed. Douglass Fisher (Cheltenham, UK, Northampton, MA, USA: Edward

In simple terms, clean air is pure, uncontaminated air. However clean air conditions are impossible to achieve in the purest sense. Air contamination is inevitable. Air contamination can occur owing to natural or non-natural causes.

AirNow defines ‘clean air’ as air that does not contain harmful levels of pollutants. Clean air is not air that is completely free from pollutants but air whose quality falls within criteria that are said to be safe to breathe.⁴¹ Huck et al. identify that ‘clean air’ and ‘air pollution’ can be viewed from various legal regimes’ perspectives. From an environmental law perspective, air pollution refers to substances released from burning fossil fuels such as coal, gasoline, petroleum or biomass, and petrochemicals. From the perspective of law and public policy related to climate protection, the concepts of clean air and air pollution are linked, as are greenhouse gas emissions and their impact on global warming and the ecology of the earth. Whereas in the perspective of public law, clean air is a gaseous substance that public authorities have approved.⁴²

Clean air criteria and qualifications are set by relevant experts, such as engineers, scientists, medical experts, and the public, who will determine how much contamination is unacceptable and how to control emissions. This is then packaged as a policy to encourage society and the economy towards a more efficient and non-polluting way to achieve healthy air quality.⁴³

In Indonesia, Government Regulation No. 22 of 2021 concerning the Implementation of Environmental Protection and Management (“Government Regulation 22/2021”) defines ‘air pollution’ as the entry or inclusion of substances, energy, or other components into ambient air due

to human activities that exceed the promulgated ambient air quality standard.⁴⁴ In other words, from the perspective of Indonesian law, ‘clean air’ is defined as air that meets the quality standards set by the state, even though these standards are different from or below the standards made by countries or general guidelines made by international institutions.

Thus, it can be concluded that clean air as a human right is not pure air without contaminants, but the air that meets air quality standards deemed to be able to maintain human health if fulfilled. This notion is in line with Boyd’s statement in the Amicus Curiae read in the trial for Decision No. 374/Pdt.G/LH/2019/PN Jkt.Pst, which states that the right to a good and healthy environment does not require the state to maintain pure air as if there is no human activity. However, if the air quality continuously exceeds the ambient air quality limit, then it is indication of human rights violations.⁴⁵

2. Clean Air as a Human Rights

Framing the right to a healthy environment as a human right is very important to lay the foundation for recognizing the right to clean air as a human right and to form the basis for the formulation of a legal protection framework for the community for the right to clean air. There have been many theoretical discourses in the literature regarding the qualification of rights to a healthy environment as human rights. One view is not to qualify environmental rights as individual rights but to use the existing human rights framework under existing human rights instruments to address issues related to the environment. What is most often referred to is the right to life or a standard of living adequate for health and well-being. However, this view is insufficient to address environmental problems. Similar to peace

Elgar, 2016), 174.

41 AirNow, “Clean Air and Dirty Air (Part One),” accessed September 29, 2022, <https://www.airnow.gov/education/students/clean-and-dirty-air-part-one/>.

42 Winfried Huck et al., “The Right to Breathe Clean Air and Access to Justice: Legal State of Play in International, European and National Law,” *SSRN Electronic Journal* 13, no. 10 (March 2021): 5, <https://doi.org/10.2139/ssrn.3808572>.

43 Simon, *Protecting Clean Air: Preventing Pollution*.

44 Republik Indonesia, “Peraturan Pemerintah No. 22 Tahun 2021 Tentang Penyelenggaraan Perlindungan Dan Pengelolaan Lingkungan Hidup,” 2022.

45 David R. Boyd, “Amicus Curiae Brief of the United Nations Special Rapporteur on Human Rights and the Environment,” October 9, 2020, October 5, 2022, https://www.ohchr.org/sites/default/files/Indonesian_air_pollution_case.pdf.

and development, a healthy environment is seen as a social or public policy objective but not necessarily as a legal right.⁴⁶

This view is motivated by the absence of international legal instruments in the form of global human rights treaties that provide equal recognition of third-generation rights to civil, political, economic, social, and cultural rights covered by International Covenants.⁴⁷ Important declarations in the development of international environmental law, namely the 1972 Stockholm Declaration on the Human Environment and the 1992 Rio Declaration on Development and the Environment, although related to human rights, were considered too general and vague in relation to the environment itself to be seen as granting human rights directly on a clean environment.⁴⁸

The existence of treaties as the main source of international environmental law allows for a more systematic imposition of environmental obligations on countries. It provides a basis for the development of more detailed environmental standards. The existence of a treaty can also form an international supervisory entity and expand the role of civil society in international environmental law.⁴⁹

A treaty's effectiveness may depend on countries' willingness to ratify and agree to comply with the treaty. However, as stated by Rodríguez-Garavito, the environment's status as a human right, or the ability of the parties involved to respect and apply it, is not degraded

even in the absence of an international treaty.⁵⁰ In line with this view, Boyd's study highlights that many countries have already regulated these rights into national law and formed part of fundamental rights regulated in constitutions and underlying legislation and policymaking.⁵¹ Portugal was the first country to adopt the concept of the right to a healthy environment in 1976, followed by Spain in 1978.⁵² Indonesia is also one of the countries that regulate rights to a healthy environment as a human right protected by the 1945 Constitution.

The European Court of Human Rights ("ECHR") also adopted the first approach to addressing environmental issues. The ECHR has yet to recognize the right to a healthy environment as a stand-alone right. However, the Court ruled in nearly 300 cases related to environmental harm, which affects a broad range of other rights enjoyment.⁵³ Kotiuk et al. conclude that this is a de facto recognition of the human right to a healthy environment, including the right to clean and healthy air.⁵⁴

The second approach involves establishing new and separate human rights that contain comprehensive norms directly related to the environment. This approach categorizes the rights to a healthy environment as third-generation

46 David R. Boyd, "The Environmental Rights Revolution: Constitutions, Human Rights, and the Environment" (Text, Vancouver, The University of British Columbia, 2010), 33, <https://open.library.ubc.ca/soa/cIRcle/collections/ubctheses/24/items/1.0058239>.

47 Boyd, 33.

48 Malgosia Fitzmaurice and Jill Marshall, "The Human Right to a Clean Environment—Phantom or Reality? The European Court of Human Rights and English Courts Perspective on Balancing Rights in Environmental Cases," *Nordic Journal of International Law* 76 (2007): 109, <https://doi.org/10.1163/090273507X225729>.

49 Ved P. Nanda and George (Rock) Pring, *International Environmental Law and Policy for the 21st Century*, 2nd ed., vol. 9, International Environmental Law (Leiden and Boston: Martinus Nijhoff Publishers, 2013), 10.

50 César Rodríguez-Garavito, "A Human Right to a Healthy Environment? Moral, Legal and Empirical Considerations," in *The Human Right to a Healthy Environment*, ed. John H. Knox and Ramin Pejan (Cambridge: Cambridge University Press, 2018), 159.

51 Boyd, "The Environmental Rights Revolution: Constitutions, Human Rights, and the Environment."

52 Elena Cima, "The Right to a Healthy Environment: Reconceptualizing Human Rights in the Face of Climate Change," *Review on European, Comparative and International Environmental Law*, Human Rights and the Climate Change Crisis, 31, no. 1 (January 2022): 38–49, <https://doi.org/10.1111/reel.12430>.

53 European Court on Human Rights, "Factsheet – Environment and the ECHR" (2022), https://www.echr.coe.int/Documents/FS_Environment_ENG.pdf.

54 Irmina Kotiuk, Adam Weiss, and Ugo Taddei, "Does the European Convention on Human Rights Guarantee a Human Right to Clean and Healthy Air? Litigating at the Nexus between Human Rights and the Environment – the Practitioners' Perspective," *Journal of Human Rights and the Environment*, no. 13 (September 30, 2022): 122–51, <https://doi.org/10.4337/jhre.2022.00.04>.

rights. Third-generation rights do not depend on nor replace other human rights recognized by the international community. Instead, the right to a healthy environment was identified as a new right born due to the international community's desire to respond to the developing situation related to environmental damage.⁵⁵

Concerns regarding environmental issues are becoming more prominent due to their potential impact on human life. Concerning climate change alone, for example, globally, the number of legal cases brought to courts has more than doubled since 2015. More than 800 cases were filed between 1986 and 2014, whereas more than 1,000 were filed between 2015 -2021.⁵⁶ The identification of environmental issues as human rights issues is gaining increasing recognition. As more constitutions and laws around the globe have acknowledged the right to a healthy environment as a legal right, this development has pushed the affirmation of the right as a third-generation human right.

The range of legal cases on environmental damages affecting the right to a healthy environment includes not only cases seeking compensation from violators but also cases requiring the state to act upon its responsibility in ensuring people's access to a clean and healthy environment. In the case of *Client Earth v. Secretary of State for the Environment, Food and Rural Affairs* in the UK, the government was deemed to have failed to comply with the mandatory NO₂ limits by the due dates set by EU air quality directives.⁵⁷ A similar legal case also took place in Indonesia, *Koalisi Ibu*

*Kota v. President of Indonesia et al.*⁵⁸, which will be further explained in the following subsection of this article. The *Massachusetts v. United States Environmental Protection Agency (EPA)* case further describes the federal system's legal dynamics regarding efforts to fulfill the right to a clean environment. The state of Massachusetts and several other states sued the EPA, a federal agency, to require the EPA to regulate emissions of carbon dioxide (CO₂) and other gases from new motor vehicles, which can impact global warming.⁵⁹

Beyond the issue of identifying the right to a clean environment as a human right, there is a strong interdependence between the right to a clean environment and other human rights. On the one hand, the right to a healthy environment is fundamental to ensure access to other human rights. Thus, the link between human rights and environmental protection is evident. First, the enjoyment of internationally recognized human rights depends on environmental protection. Without diverse and sustainable biological and non-biological resources, humans cannot survive.⁶⁰

In relation to the right to clean air, breathing clean air is important for human health. Only with good health and freedom from various health problems humans can access and pursue the fulfillment of their human rights. Concerning climate change, the environmental damage caused by human activities triggers climate change, which affects the fulfillment of various human rights. The scope of rights referred to includes rights to life (such as extreme weather-related events that threaten human safety), rights to health (such as the increased risk of disease and death due to heatwaves and fires, high rates of hunger),

55 Ved P. Nanda and George (Rock) Pring, *International Environmental Law and Policy for the 21st Century*, 2nd ed., vol. 9, International Environmental Law (Leiden and Boston: Martinus Nijhoff Publishers, 2013), 597.

56 Joana Setzer and Catherine Hingam, "Global Trends in Climate Change Litigation: 2021 Snapshot" (London: Grantham Research Institute on Climate Change and the Environment and Centre for Climate Change Economics and Policy, London School of Economics and Political Science., July 2021).

57 *R (on the application of ClientEarth) v Secretary of State for the Environment, Food and Rural Affairs* (UK Supreme Court April 29, 2015).

58 Putusan No 374/Pdt.G/LH/2019/PN JKT. PST (Pengadilan Negeri Jakarta Pusat 2021).

59 *Massachusetts v. EPA*, 549 U.S. 497 (2007) (US Supreme Court 2007).

60 Donald K. Anton and Dinah L. Shelton, *Environmental Protection and Human Rights* (Cambridge, New York, Melbourne, Madrid, Cape Town, Singapore, Sao Paulo, Delhi, Tokyo, Mexico City: Cambridge University Press, 2011), 131.

right to housing (damage to houses and residential areas due to extreme weather), and rights to water and sanitation (due to the declining quality and quantity of water sources).⁶¹

On the other hand, the implementation of certain human rights, such as the right to information and political rights, will enhance environmental protection. The right to information is essential to guarantee and ensure the legal compliance of both private and state-owned corporations to the environmental standards set by laws and regulations. When associated with the Corporate-Social Responsibility (CSR) or sustainability reporting obligations of public corporations, the right to information can encourage corporations to increase business initiatives that are more pro-human rights. In comparison, political rights relate to the rights of those potentially affected by a business activity to participate in the decision-making process regarding hazardous activities to prevent or reduce the impacts that occur.⁶²

Apart from the developed theoretical discourse, the empirical situation and facts show that air pollution has seriously threatened human life. Clean air as a human right no longer needs to be debated. On July 18, 2021, the United Nations Human Rights Council passed a resolution recognizing that a clean, healthy, and sustainable environment is a human right. Furthermore, on July 28, 2022, the United Nations General Assembly passed the same resolution. Several United Nations Sustainable Development Goals (SDGs) also recognize the importance of the right to clean air.⁶³ As Boyd emphasized, 'clean air is not an optional policy objective. It's a fundamental human right'.⁶⁴

61 Amnesty International, "Climate Change," 2022, <https://www.amnesty.org/en/what-we-do/climate-change/>.

62 Anton and Shelton, *Environmental Protection and Human Rights*, 171.

63 See for example, SDG target 3.9.1 calling for reductions in deaths and illnesses from air pollution; and target 11.6.2 on reducing the environmental impact of cities by improving air quality.

64 David R. Boyd, "The Human Right to Breathe Clean Air," *Annals of Global Health* 85, no. 1 (2019): 146, <https://doi.org/10.5334/aogh.2646>.

3. The Role of Government and Corporations in Promoting Right to Clean Air

Based on the GPHRs framework, the government and corporations have roles and corridors of responsibility in fulfilling the right to clean air. The government must make rules and policies that become standards of behavior and enforce corporate compliance needed to maintain air quality, including establishing a system of sanctions and ensuring access to effective legal remedies in the event of violations that harm the community.

In addition to complying with laws and regulations, corporations can make business policies that are pro-environmental and based on awareness of the importance of maintaining air quality to fulfill the community's right to clean air. Corporations may follow environmental standards for business and run a business by paying attention to sustainability. Corporations must also be able to identify, prevent and mitigate the environmental impacts of their business activities, particularly those that affect air quality.

Readdressing the garment industry in Bangladesh as an example, the environmental impacts of the fast fashion industry also reflect a human rights issue. This industry contributes to the problem of water scarcity in countries that supply raw materials, manufacturing sites, and significant carbon emissions.⁶⁵ Annually, the fast fashion industry produces at least 92 million tons of waste, contributes 8-10 percent of global CO₂ emissions, and consumes at least 79 billion cubic meters of water. Making one pair of jeans produces the same greenhouse gases as driving a car at 129 km (80 miles).⁶⁶ In Bangladesh, dyes and toxic chemicals in garment production, which are then released into rivers, increase diseases among Bangladeshis.⁶⁷ This situation reflects a

65 Kirsi Niinimäki et al., "The Environmental Price of Fast Fashion," *Nature Reviews Earth & Environment* 1 (2020): 189–2020, <https://doi.org/10.1038/s43017-020-0039-9>.

66 Azubuike, "The Price of Fast Fashion: How Consumerism Fuels The Climate Crisis and Threatens Human Rights."

67 Georgia Bynum, "The Impact of Fast Fashion in

similar underlying problem of the right to clean air affected by carbon emissions. Access to clean water and clean air are substantial interrelated elements of a healthy environment as a human right.

The study of Niinimäki et al. on the fast fashion industry, which uses a multi-stakeholder approach, corresponds to the GPHRs framework in addressing environmental issues related to the human right to a healthy environment. As a policymaker, the government plays a role in legislating and strengthening laws and regulations and formulating necessary policies, such as fiscal policies in the form of green taxation and other policies to create a balance between business (production) and the interests of other stakeholders. From a business perspective, corporations are responsible for preventing and managing waste, investing in technology to control pollution and environmental impacts in the garment industry, avoiding production surpluses and being transparent in the supply chain related to the production process. The study further also highlights the role of retailers (such as updating pricing systems that take into account environmental impacts) and the role of consumers (such as using longer clothing and reducing the frequency of purchasing new clothing).⁶⁸

A case study by Shafie et al. also resonates with the GPHRs framework in promoting the right to clean air. The study concludes that although the government has enacted various laws and policies, air pollution remains a significant issue. In addition to stricter law enforcement, environmental sustainability requires an integrated partnership between the government and other stakeholders (which includes corporations).⁶⁹

Bangladesh,” May 26, 2021, <https://borgenproject.org/fast-fashion-in-bangladesh/>.

68 Niinimäki et al., “The Environmental Price of Fast Fashion,” 195–97.

69 Siti Haslina Mohd Shafie et al., “Analysis of Urban Air Pollution and The Effectiveness of Air Pollution Control Policy in Malaysia: Case Study in Klang Valley, Malaysia,” *Jurnal Cita Hukum* 9 (2021): 13–28, <https://doi.org/10.15408/jch.v9i1.20018>.

C. Regulatory and Ethical Challenges for Safeguarding Clean Air in Indonesia

The paradigm of running a business described above aligns with the concept of investment as an engine of growth, where investment is deemed necessary to increase the production capacity of goods and services to spur economic growth. The Government of Indonesia has firmly and clearly established increased investment as an essential foundation for the direction of Indonesia’s development policy. President Joko Widodo, on various occasions, including in his Speech on Indonesia’s Vision in July 2019 after being re-elected for a second term, emphasized that he would invite the widest possible investment and continue the infrastructure development strategy.⁷⁰

Infrastructure development is directed at connecting productive economic centers to answer distribution problems and support regional economic growth. Several massive infrastructure projects have been developed across Indonesia.⁷¹ Based on data from the Central Statistics Agency (BPS), Indonesia’s economy grew in the second quarter of 2022, amid the risk of a weakening global economy and rising inflationary pressures. Economic growth in the second quarter of 2022 reached 5.44 percent (YoY), above the previous quarter’s 5.01 percent (YoY).⁷²

The ratification of the necessary legal instruments further strengthens the government’s development strategy. Such legal instruments include the ratification of Law No.11 of 2020 on Job Creation (“Job Creation Law”), the launch of the Online Single Submission Risk Based Approach for a faster-licensing process,

70 Kompas.com, “Pidato Visi Indonesia, 5 Tahapan Besar yang Disebut Jokowi,” July 14, 2019, <https://nasional.kompas.com/read/2019/07/14/22171281/pidato-visi-indonesia-5-tahapan-besar-yang-disebut-jokowi>.

71 Kementerian Investasi/BKPM, “Ease of Doing Business di Indonesia Terus Membaik,” Government, 2018, <https://www.investindonesia.go.id/id/artikel-investasi/detail/ease-of-doing-business-di-indonesia-terus-membaik>.

72 Erwin Haryono, “Ekonomi Indonesia Tumbuh Tinggi Pada Triwulan II 2022,” August 5, 2022, https://www.bi.go.id/id/publikasi/ruang-media/news-release/Pages/sp_2420622.aspx.

changes to the negative list through Presidential Regulation No.10 of 2021 as well as the provision of fiscal and non-financial incentives, fiscal policy for investors, and the establishment of an Investment Management Institute (Lembaga Pengelola Investasi—"LPI"). This development strategy and the environmental impacts that result from it raise questions about the responsibility of the state and government to protect the right to a healthy environment, including the right to clean air, through regulations and policies.

Article 28 H (1) of the 1945 Constitution regulates the rights of citizens to live in physical and spiritual prosperity, to have a place to live, to have a good and healthy environment, and to have the right to obtain health services. This provision accommodates the right to clean air by associating clean air with a good and healthy living environment.⁷³

Article 163 of Law No.36 of 2009 concerning Health ("Law 36/2009") also regulates the obligations of the government and local governments for the availability of a healthy environment that does not pose a lousy risk to health, including from polluted air.⁷⁴ Law No.32 of 2009 concerning Environmental Protection and Management as amended by the Job Creation Law ("Law 32/2009") states that the right to clean air is part of human rights. Article 3 (g) states that the protection and management of the environment aim to ensure the fulfillment and protection of the right to the environment as part of human rights.⁷⁵ In addition, Article 3 (a) also stipulates that environmental protection and management aims to protect Indonesian territory from pollution or environmental damage.⁷⁶

Law 32/2009 can also be said to regulate air protection further. In the definition of

environment, Article 1 of the law includes the unity of space with all objects, conditions, and living things, including humans and their behavior that affects the survival and welfare of humans and other living creatures.⁷⁷ In Wattimena's view, the environment covers ecosystems that not only include living things such as humans, plants, and animals but also water, soil, air, and natural resources that are inherent in it.⁷⁸ Thus, there is a correlation between a healthy environment and the fulfillment of the right to clean air. Various derivative regulations, including Government Regulation 22/2021, further elaborate on Law 32/2009 as amended by the Job Creation Law.

There are also other regulations that, while not explicitly regulating the right to clean air, have strong links to the fulfillment of this right. Law No.41 of 1999 on Forestry ("Law 41/1999") and its derivative regulations, for example, emphasize the importance of accommodating the role of forests in combatting climate change.

At the regional level, the Government of Jakarta has enacted various regulations to respond to air pollution problems. These include Regional Regulation No. 2 of 2005 concerning Air Quality Control, Governor Regulation No. 12 of 2016 concerning Motorized Vehicle Free Day, Governor Instruction No. 66 of 2019 concerning Air Quality Control, and Governor Regulation No. 66 of 2020 concerning Motorized Vehicle Exhaust Emission Tests. The regional governments of other provinces, especially in air pollution-prone areas, will have a similar range of laws and regulations.

These provisions indicate that the Indonesian legal framework governing the right to a clean environment includes substantive environmental rights. These substantive environmental rights guarantee that all people can enjoy conditions that meet specific minimum requirements that do not endanger their health. These rights also impose

73 Republik Indonesia, "Undang-Undang Dasar Republik Indonesia," 1945.

74 Republik Indonesia, "Undang-Undang No.36 Tahun 2009 Tentang Kesehatan," 2009.

75 Republik Indonesia, "Undang-Undang No.32 Tahun 2009 Tentang Perlindungan Dan Pengelolaan Lingkungan Hidup," 2009.

76 Republik Indonesia.

77 Republik Indonesia.

78 Josina Augusthina Yvonne Wattimena Wattimena, "Pemenuhan Hak atas Air Bersih dan Sehat, Serta Hak Menggugat Masyarakat," *Balobe Law Journal* 1, no. 1 (April 1, 2016): 1–16.

obligations on the government to protect citizens' rights to a healthy environment.⁷⁹

In addition to substantive environmental rights, several provisions of law and derivative regulations regulate procedural environmental rights. Procedural environmental rights include access to information, the right to participate in decision-making, and access to justice. Procedural rights play a crucial role as counterweights when environmental rights conflict with other rights.⁸⁰

However, despite the essential basic legal instruments in place regarding the fulfillment of the right to a healthy environment in Indonesia, efforts to reduce air pollution and improve access to clean air require serious commitment, stricter law enforcement, and even the implementation of new regulations and policies. The Government of Indonesia has begun to address several sources of air pollution. In the 2015 Paris Agreement, Indonesia committed to curbing the rate of increase in global average temperature by no more than 2° Celsius, above pre-industrial levels, with further ambitions to reduce the temperature increase by 1.5 degrees Celsius.

The government has taken steps that are considered pro-environmental. One is to make efforts to overcome air pollution originating from forest and peat fires. Haryanto noted that since 1999, the Ministry of Environment had proposed several steps to deal with the impacts of climate change. The government has made efforts to prevent forest fires in fire-prone areas as one of the leading causes of Indonesia's high greenhouse gas emissions. Since President Susilo Bambang Yudhoyono's era, the government has initiated a moratorium on opening new peatlands. President Joko Widodo has reimposed this moratorium and formed the Peat Restoration Agency (Badan Restorasi Gambut—"BRG"). This policy is considered to have resulted in a reduction in

the area of land that experienced fires in 2018 compared to that in 2015.⁸¹

To reduce air pollution from motorized vehicles, especially in urban areas such as Jakarta, the government has required gasoline-fueled vehicles to adopt the Euro-4 fuel standard in 2017 to be effective no later than September 2018. The Euro-4 standard applies the criteria for the use of a higher quality and cleaner fuel with a sulfur content of not more than 50 ppm (a standard which is ten times stricter than the sulfur limit in the previously used Euro-2 fuel).⁸² In 2021, the government also decided to implement the Euro-4 standard for diesel-fueled vehicles, which has been effective since April 2022.

Despite various pro-environmental policies, the reality shows a paradox in the implementation. The immense scale of development evident in the increasing number of industrial factories that reduces green open land and more giant chimneys that emit pollutants into the air is raising doubts that the government can fulfill its environmental commitments. Consequently, the protection of the right to a clean environment, which includes the right to clean air, is not guaranteed.

According to AQLI, Indonesia is ranked number five in the world regarding reduced life spans due to exposure to particulate pollution.⁸³ Various data have given warning about this condition and it is without a doubt a human rights issue.

Returning to the GPHRs framework, one of the biggest challenges for countries is formulating policies that balance the interests of maintaining and boosting the investment climate and the obligation to respect human rights. With the premise that the fulfillment of the right to a healthy environment, especially the right to clean

79 Boyd, "The Environmental Rights Revolution: Constitutions, Human Rights, and the Environment," 39.

80 Bryner, "A Constitutional Right to a Healthy Environment," 174.

81 Michael Greenstone and Qing (Claire) Fan, "Indonesia's Worsening Air Quality and Its Impact on Life Expectancy" (Energy Policy Institute at The University of Chicago, 2019), 6, <https://aqli.epic.uchicago.edu/wp-content/uploads/2019/03/Indonesia-Report.pdf>.

82 Greenstone and Fan, 5.

83 Greenstone and Fan, 3.

air, is a human right, the development vision and formulation of policies and regulations should not violate the right to clean air.

Development policies and legal developments that have taken place since the enactment of the Job Creation Law further disrupt the balance in the tug-of-war between development in the name of people's welfare and the interests of various affected stakeholders, including the environment. Pro-development and pro-growth policies restrict environmental protection efforts, which are essential for fulfilling the right to clean air.

One of the most significant controversies is the change in environmental licensing for business activities. Environmental permits are an instrument of control over business activities so that these activities do not harm the environment.⁸⁴ The Job Creation Law has changed legal aspects in preparing the Environmental Impact Analysis (*Analisis Mengenai Dampak Lingkungan—“AMDAL”*). In the new licensing bureaucracy, the Job Creation Law removes the right of public access to information and limits who participates in the preparation of the AMDAL. Community involvement is limited to those directly affected by industrial activities. Previously, the AMDAL assessment involved the affected community and environmentalists in all decisions in the AMDAL process.

Referring to the *naskah akademis* (academic text)⁸⁵ of the Job Creation Law, the government changed the provision regarding community involvement in the AMDAL process because it was considered a factor that inhibits investment. Therefore, the government considers the changes of article 26, paragraphs (2) and (3) of Law 32/2009 are necessary to speed up the process of

environmental permits.⁸⁶ Indeed, the Job Creation Law does not entirely rule out environmental interests. However, in the name of ease of doing business and promoting investment growth, it undermines the environmental standards to help protect the environment.

In reality, potentially affected communities can approve and support the planned business activity with an agreement on financial compensation due to economic factors without clearly and comprehensively understanding the long-term impact of business activities. The mention of 'people directly affected' sets apart the affected people from other community elements, such as environmentalists, meaning that it reduces public control to preserve the environment.⁸⁷

The resistance of the people of Wadas Village in Central Java can illustrate the dynamics of community involvement in environmental permits. The resistance revolves around opening an andesite mine that will affect community access to water and the quality of life they have been enjoying. Referring to the Purworejo Regional Regulation No.27 of 2011, Wadas Village is also part of a landslide-prone area with a high level of vulnerability. Developing a mine in the area adds to the region's vulnerability.⁸⁸ However, the villagers have split into two groups: those who agree to receive compensation considered appropriate for the land acquired for mining and those who continue to oppose and defend their village. Indeed, the roles of environmentalists, academics, related experts, and other elements of society in the opposition have been inseparable. They have helped educate and sound the 'alarm'

84 Andri Gunawan Wibisana, "Pengelolaan Lingkungan Melalui Izin Terintegrasi Dan Berantai: Sebuah Perbandingan Atas Perizinan Lingkungan di Berbagai Negara," *Jurnal Hukum dan Pembangunan* 48, no. 2 (2018): 222–55, <http://dx.doi.org/10.21143/jhp.vol48.no2.1662>.

85 *Naskah akademis* is a document containing the background, philosophical basis, goals, desired results, the scope of objects, and visions of the drafted law.

86 Republic of Indonesia, "Naskah Akademis RUU Tentang Cipta Kerja" (Jakarta, November 20, 2020), 156, <https://uu-ciptakerja.go.id/naskah-akademis-ruu-tentang-cipta-kerja/>.

87 Sri Suryani Anih, "Perizinan Lingkungan Dalam Undang-Undang Cipta Kerja Dan Dampaknya Terhadap Kelestarian Lingkungan," *Info Singkat*, Bidang Kesejahteraan Sosial, XII, no. 20 (2020): 14.

88 CNN Indonesia, "Konflik Desa Wadas, Jokowi Diminta Hentikan PSN Bermasalah," February 11, 2022, <https://www.cnnindonesia.com/nasional/20220211163721-20-758162/konflik-desa-wadas-jokowi-diminta-hentikan-psn-bermasalah/1>.

about the impact of mining development in the long term. On the one hand, this may contradict the government's development agenda, which also adheres to statutory regulations for legal certainty. Nevertheless, on the other hand, the opposition views continue to correlate to the people's right to a healthy environment protected by law and represent some groups within the community.

Prior to the passage of the Job Creation Law, Law 41/1999 set a minimum requirement that at least 30 percent of land delineated by islands or riverbeds be maintained as forest land. The Job Creation Law has abolished this minimum requirement stipulated in Article 18 of the law.⁸⁹ This legal development can trigger massive deforestation in areas with more than 30 percent forest area. In addition, there is no longer any obligation for areas with less than 30 percent forest area to progressively increase their forest area to meet the legal requirements.

The Indonesian Minister of Environment and Forestry has explained that the abolition aims to remove boundaries for areas with less than 30 percent forest area so they can perform development plans like other areas with sufficient forest. The government believes that eliminating this minimum limit could increase the conversion of forest area functions in the spatial planning process.⁹⁰ Widaryanto argues that historically, the minimum threshold of 30 percent came from a colonial doctrine that was no longer relevant to current conditions and needs. He added that the determination of the 30 percent figure affects Indonesia's social, political, economic, and ecological conditions, which have changed considerably. While there still needs to be an agreement on the ideal amount at the international

level, he argued that changes to the Job Creation Law provisions could provide momentum to study and agree on a minimum size of forest area under current conditions.⁹¹ Widaryanto's opinion closely reflects the reasons for changing the provisions of Article 18 of Law 41/1999 as found in the matrix provided in the Job Creation Law academic text.⁹² In addition, the text does not cite further studies.

The study referred to by Widaryanto should have been carried out in-depth before regulations were changed. It should have been part of the academic text that formed the foundation for statutory regulations. Suppose that the figure of 30 percent is no longer relevant. In this case, the government should inquire about the appropriate minimum forest area threshold, its scientific basis, and whether the new threshold setting aligns with the green vision for environmental protection. Without a solid scientific basis, the government should not hastily change the threshold in the name of development which has the potential to impact the environment.

Despite the downward trend in the deforestation data provided by the government, the data are cumulative without differentiating forest resources in each region. For example, Forest Watch Indonesia stated that the trend of decreasing deforestation was not due to government intervention but because forest resources had been depleted, such as in Sumatra and Java. Meanwhile, deforestation has increased in areas with extensive forests, especially in the eastern region, such as Kalimantan, Sulawesi, Maluku, and Papua.⁹³

Deforestation is a threat to the source of oxygen. People generally have recollections of the science lessons learned in school about

89 Keluarga Mahasiswa Manajemen Hutan UGM, "Kontroversi UU Ciptaker Mengenai Penghapusan Batas Minimal Kawasan Hutan Sebesar 30 Persen," July 29, 2022, <https://kmmh.fkt.ugm.ac.id/2021/07/29/kontroversi-uu-ciptaker-mengenai-penghapusan-batas-minimal-kawasan-hutan-sebesar-30-persen/>.

90 Pramono Dwi Susetyo, "Konsekuensi Penghapusan Luas Hutan 30%," *Forest Digest*, May 10, 2022, <https://www.forestdigest.com/detail/1725/penghapusan-luas-hutan-30-persen>.

91 Pungky Widaryanto, "Rasionalitas Kebijakan Konsepsi Hutan dan Penghapusan Batas Minimal Kawasan Hutan 30 Persen," *Rimba Indonesia* 68 (April 2021): 24–30.

92 Republic of Indonesia, "Naskah Akademis RUU Tentang Cipta Kerja," 1347.

93 BBC News Indonesia, "Cek Fakta Pernyataan Jokowi Di COP26, Aktivistis Lingkungan Peringatkan 'bencana Ekologi' Karena Laju Penggundulan Hutan Justru Akan Naik," November 2, 2021.

photosynthesis, which then produces oxygen. From these lessons, we can understand at least two simple things: oxygen is vital for life, and plants are a source of oxygen; therefore, it is crucial to maintain the environment in which they live and grow. Deforestation impacts people's right to clean air, given the critical functions of forests as oxygen producers and pollutant emission absorbers.⁹⁴

Unfortunately, the food estate program launched by the government represents another threat to deforestation. The food estate program is one of the national strategic projects in response to the warning of the food crisis caused by the COVID-19 pandemic. The natural forests included in this program cover Papua, Central Kalimantan, North Sumatra, and South Sumatra. These forests play an essential role as an instrument for preventing pollution and environmental damage.⁹⁵ ICEL notes that the food estate program may use the Rapid Environmental Assessment (KLHS) method, violating the Precautionary Environmental Law Principle.⁹⁶ Furthermore, concerns about environmental damage due to the weakening of spatial planning instruments in the Job Creation Law affirm the threat of deforestation.

In addition, the Job Creation Law eliminates the strict liability of corporations holding forestry permits in the event of forest fires. The previous stipulation in Law 41/1999 stipulates that forest utilization rights holders are liable for forest fires in their territory. However, the new law has reduced the obligation to merely carrying out efforts to prevent and control fires. It indicates that a corporation can escape responsibility and not be penalized if it can show that it has made maximum effort. Such legal development is unfortunate because, during the moratorium on new peatland clearing, the government reduced the necessary

legal instruments to force corporations to be careful and take responsibility for the fires that occurred.

Regarding energy policy, coal is currently a strategic political commodity. It will remain the main energy source for electricity generation in Indonesia until 2050 because it is the cheapest energy source to date. The government has continued to increase its coal production target consistently. With the ease of doing business paradigm echoed by the Job Creation Law, licensing for business activities for the mineral and coal sectors is also getting easier. The greater Jakarta area (within a radius of 100 km) is surrounded by coal-fired power plants, whose number will continue to grow.⁹⁷ Coal burning is a major source of particulate pollution. This empirical fact certainly adds to the doubts that the government will fulfill its commitments, especially in the effort to shift to renewable energy sources that are more sustainable and environmentally friendly. The government, therefore, at least needs to tighten regulations related to coal burning. More importantly, the government should revisit the coal-based energy policy because it means that for the next 30 years, people will have to continue to face the same air quality problems.

The following legal challenges concern the air quality standards implemented in Indonesia. On the one hand, a change to Law 32/2009 by the Job Creation Law can be regarded positively as fulfilling the right to clean air by setting administrative sanctions for violators of air quality standard thresholds. The newly added Article 82B stipulates that anyone who exceeds the ambient air quality standard, water quality standard, or seawater quality standard or violates environmental damage standard criteria allowed based on the business permit is subject to administrative sanctions.⁹⁸ Article 82C further explains that administrative sanctions can take the

94 BBC News Indonesia.

95 Adrianus Eryan, Difa Shafira, and Etheldreda E. L. T. Wongkar, "Analisis Hukum Pembangunan Food Estate di Kawasan Hutan Lindung," *Seri Analisis Kebijakan Kehutanan dan Lahan* (Jakarta: Indonesian Center For Environmental Law, December 18, 2020), https://icel.or.id/storage/seri_analisis/1646667845.pdf.

96 Eryan, Shafira, and Wongkar, 17.

97 Greenpeace Indonesia, "Jakarta's Silent Killer."

98 Republik Indonesia, "Undang-Undang No.32 Tahun 2009 Tentang Perlindungan Dan Pengelolaan Lingkungan Hidup."

form of written warnings, government coercion, administrative fines, suspension of business licenses, or revocation of business licenses.⁹⁹

Government Regulation 22/2021, an implementation regulation of Law 32/2009 and the Job Creation Law, has set a new national ambient air quality standard. Government Regulation

22/2021 (as provided in Annex VII) has tightened the ambient air quality standard compared to the previous quality standard based on the previous regulation. However, the new ambient air quality standards are still far from the WHO standards, especially the latest guidelines released in September 2021.

Table 1. Comparison of ambient air quality standards

Parameter	GR 22/2021	WHO 2021 guidelines	GR 41/1999
PM ₁₀	24 hours	75 µm/m ³	150 µm/Nm ³
	1 year	40 µm/m ³	-
PM _{2.5}	24 hours	55 µm/m ³	65 µm/Nm ³
	1 year	15 µm/m ³	-

Source: Compiled by Authors

The table above shows that the ambient air quality standards set out in Government Regulation 22/2021 are still much less stringent than those set by the WHO. The latest WHO guidelines set air quality standards that are even tighter than the 2005 version of the guidelines. For PM_{2.5} pollutants, the annual exposure threshold value is currently set at 5 per m³ compared to the standards made in 2005 which were set at 10 micrograms per m³. The daily standard was also tightened from 25 to less than 15 micrograms per m³.¹⁰⁰

Article 173 of Government Regulation 22/2021 stipulates that air quality standards are determined by considering the results of air inventory and health, social, economic, and environmental aspects.¹⁰¹ Article 173 is in line with WHO's statement that countries may adapt the 2021 WHO guidelines by considering technical capabilities, economic capacity, air quality management policies, and other political and social factors. Before adopting WHO guidelines

as legally based standards, governments should consider their local conditions.¹⁰²

Although the 2021 WHO Air Quality Guidelines are not a binding legal instrument, countries must underline that the guidelines are evidence-based recommendations to achieve air quality that protects public health. The WHO regularly updates the guidelines to maintain relevance by considering the latest global environmental issues and most recent health studies. The 2021 Air Quality Guidelines are in response to the latest threat of air pollution to public health.¹⁰³

The discrepancy between the revised government's ambient air quality standards and WHO 2021 guidelines raises questions about how the government has incorporated consideration of WHO guidelines into setting the national standard. The minimum standards draw on WHO provisions that enable governments to set standards that reflect local conditions without providing evidence of how the context has influenced the setting of the standards. Similarly, the academic text of the Job Creation Law does not provide a rationale for the level of minimum standards set.

99 Republik Indonesia.

100 The WHO air quality standards are non-binding guidelines. According to WHO, before employing them in policies, governments should weigh local circumstances, such as technical and economic capacity, air quality management policies, and other political and social factors.

101 Republik Indonesia, "Peraturan Pemerintah No. 22 Tahun 2021 Tentang Penyelenggaraan Perlindungan Dan Pengelolaan Lingkungan Hidup."

102 World Health Organization, "What Are the WHO Air Quality Guidelines?," September 22, 2021, <https://www.who.int/news-room/feature-stories/detail/what-are-the-who-air-quality-guidelines>.

103 World Health Organization.

Various institutions have predicted that if Indonesia can meet the standards set by WHO, it will be able to prevent the number of deaths and premature births due to exposure to large amounts of air pollution. The ambient air quality standards in Government Regulation 22/2021 still need to reflect the guarantee of public access to clean air. This condition is also closely correlated with the decision on citizen lawsuits at the Central Jakarta District Court regarding air pollution in the Jakarta area.

In 2019 the Coalition for *Gerakan Inisiatif Bersihkan Udara Koalisi Semesta* (“Koalisi Ibu Kota”) filed a citizen lawsuit on air pollution in the capital city of Jakarta to the Central Jakarta District Court. The lawsuit named the President, Minister of Environment and Forestry, Minister of Home Affairs, Minister of Health and the Governor of Jakarta as defendants. In Decision No. 374/Pdt.G/LH/2019/PN Jkt.Pst the Court ruled that Jakarta’s air had exceeded the ambient air quality standard, which then caused various health problems. The Court further ruled that the defendants had failed to take the necessary actions to fulfill the right to a good and healthy environment. Therefore, the Court held that the defendants in this case had violated human rights.¹⁰⁴

The Court decided that the President must tighten the national ambient air quality standards to protect health. The Minister of the Environment must supervise the Governors of Jakarta, Banten and West Java to conduct an inventory of transboundary emissions in Jakarta, Banten, and West Java. The Minister of Home Affairs must supervise the performance of the governor of Jakarta in controlling air pollution. The Minister of Health must calculate the reduction in health impacts due to air pollution in Jakarta, which needs to be achieved as a basis for consideration by the governor of Jakarta in preparing the Strategy and Action Plan for Air Pollution Control. The Court ordered the governor of Jakarta to do several things, including monitoring legal compliance in

air pollution control and environmental document provisions and imposing sanctions on violators, as well as tightening regional ambient air quality standards for Jakarta sufficient to protect health.¹⁰⁵

The Court decision was responded to differently by the defendants. The Jakarta Government responded to the decision by arranging several action plans. These include retracing the primary causes of pollution in Jakarta, initiating efforts to expand the public transportation network, improving pedestrian access and pushing back the implementation of emission tests on motorized vehicles, and revisiting the ticket penalty plan for emission tests compliance in collaboration with Jakarta Police (“Polda Metro Jaya”).¹⁰⁶ These steps are part of the Grand Design for Air Pollution Control, which has been prepared since 2020 to improve air quality in Jakarta. The central government, on the contrary, chose to appeal to the Jakarta High Court. On October 20, 2022, the Jakarta High Court issued Decision No.549/PDT.G-LH/2022/PT DKI upholding the District Court’s decision.¹⁰⁷

Regardless of how the defendants responded to the Court decision, a fundamental question is what air quality standards are sufficient to protect health. The minimum standard set by Government Regulation 22/2021 is far below the 2021 WHO air quality guidelines and, therefore, cannot be considered sufficient to protect health. In our opinion, the current ambient air quality standards do not meet sufficient standards for the government to carry out Court orders.

Nevertheless, the Court’s decision underscores several crucial points. First, it affirms that the right to clean air is a human right, and in Indonesia, it is protected by the 1945 Constitution. Air pollution has implications not only for the

104 Putusan No 374/Pdt.G/LH/2019/PN JKT. PST.

105 Putusan No 374/Pdt.G/LH/2019/PN JKT. PST.

106 Dinas Lingkungan Hidup Provinsi DKI Jakarta, “Pengendalian Pencemaran Udara di Provinsi DKI Jakarta” (Press Release, Jakarta, December 2021), <https://jakarta.bpk.go.id/wp-content/uploads/2021/12/Catber-Pengendalian-Pencemaran-Udara-Jakarta.pdf>.

107 Putusan No.549/PDT.G-LH/2022/PT DKI (Pengadilan Tinggi DKI Jakarta 2022).

right to a good and proper environment but also for other human rights. Human rights, in this case, include those that are both substantive and procedural. Second, both central and local governments have a duty to protect human rights for a clean environment. Negligence and failure of the state to maintain air quality is a violation of human rights.

The case also highlights that implementation is required despite an existing legal framework to protect the right to clean air. It includes the design by the government of policies that align with the promotion of rights to a healthy environment. It also requires a political will to implement and enforce provisions even when they contradict the government's economic development objectives to achieve a balance.

Economic development and the consequences of polluting emissions are unavoidable. However, the government needs to make every effort to be proportionate in protecting the environment, which in turn is part of the protection of human rights. In other words, this Court decision provides a powerful signal for the government to re-evaluate the development strategy along with a series of policies and regulations made for its implementation to find the ideal balance point to protect human rights, especially in this case, the right to a healthy environment. It includes, in particular, the evaluation of various policies in the energy and industrial sectors.

Then what about the role of the private sector? The most significant role of corporations in protecting their right to a healthy environment is to run an ethical and responsible business. A responsible business will implement all necessary measures to avoid a negative impact on others. Unethical businesses will try to keep their pollutant emissions unknown or only meet minimal legal standards disproportionate to the impact of their business activities. Although most laws and regulations are based on ethical standards, not all ethical standards have been established as law. The law sets minimum standards for expected behavior, but ethics demands more. Corporations can opt

beyond complying with the law, even more so than not violating their rights. Corporations can become moral agents that implement environmental ethics to help reduce negative environmental impacts by promoting green business practices and reducing waste and emissions.¹⁰⁸

Every industry produces different pollutants, each of which has different ethical challenges. One industry's standards for controlling pollutant emissions may be lower than those of the other. Corporations must identify environmental challenges in their business activities and apply the ethical standards necessary to prevent and reduce their environmental impacts beyond legal compliance. Corporations need to assess not only the emissions released from their businesses but also from their suppliers and every party involved in the production chain. Through this step, corporations can identify ways to shift to more environmentally friendly business models, such as using cleaner energy sources.

To maintain air quality, corporations should prevent pollution through changes in operations, preventive repair, and maintenance, or changes in raw materials that are more environmentally friendly and sustainable. Corporations need to build a sound air pollution control system into the production process and improve the air pollution control system.

All of the above can be implemented primarily through green audit initiatives based on globally recognized standards, which aim to minimize the environmental impact of business activities as much as possible to promote more sustainable business practices.¹⁰⁹ Green audits are

108 Raj Das, "Importance of Practicing Environmental Ethics in Workplace," *The Times of India* (blog), June 10, 2022, <https://timesofindia.indiatimes.com/blogs/voices/importance-of-practicing-environmental-ethics-in-workplace/>.

109 A green audit referred to is not the same as the Indonesian mandatory environmental audit. The mandatory environmental audit assesses the environmental legal compliance of certain corporations under the law. Green audit, generally a voluntary practice driven by private initiative, assesses the environmental impact of corporate activities and aims to formulate a plan to reduce business carbon footprint to improve sustainability.

generally voluntary, and a green audit indicates a corporation's effort to seek ways beyond legal compliance to align its business with sustainability objectives.

The ethical preference to be a responsible business may incur costs and require design and recalculation of production costs to obtain a selling price that reflects sustainability aspects. However, this is what tests the commitment of a corporation to become a responsible business. By being a responsible business, corporations can become drivers of change and promote the protection of the right to a clean environment to ensure public access to clean air.

In addition, the citizens or community members can also promote the right to a healthy environment. Citizens can proactively and critically use their substantial and procedural legal rights to push the government to enforce better laws with stringent enforcement and push corporations to become responsible businesses that respect human rights and do not harm the environment. The case of *Koalisi Ibu Kota v. The President of Indonesia et al.* is an example of how citizens use their legal rights when the government is deemed negligent and harms the community.

As consumers, citizens can make ethical choices to reduce environmental impacts. These choices include product reuse and recycling and reducing the frequency of purchasing new products that will affect carbon emissions. Consumers can choose to buy from green businesses that pay attention to the supply chain and make efforts to minimize environmental impact in their industry. Consumers' ethical choices will become a market drive to force businesses to become more ethical and improve their sustainability practices.

CONCLUSION

Human activities have resulted in air pollution that has severe health impacts on humans and affects their quality of life. The right to clean air is not only a legal but also a moral right, and the right to clean air is a fundamental human right. Protection of the right to clean air

involves the fulfillment of human right to clean air, which can be encouraged by state power to enforce pro-environmental policies and the implementation of ethical and responsible business activities by corporations. Indonesian laws and regulations have regulated the protection of the right to a healthy environment that includes both substantive and procedural rights. However, the development paradigm promoted by the government and the supporting legal instruments are not pro-environment and have the potential to violate human right to clean air.

The government needs to strengthen regulations related to air pollution control and business legal compliance, notably strengthening applicable air quality standards in accordance with evidence-based, internationally recognized standards to protect public health. The government needs to re-evaluate the development strategy along with a series of policies and regulations made for its implementation to find the ideal balance to protect human rights, especially the right to a healthy environment. It includes, in particular, the evaluation of various policies in the energy and industrial sectors. Corporations can play a role in conducting responsible business to drive change and promote the protection of the right to a clean environment to ensure public access to clean air.

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REFERENCES

- AirNow. "Clean Air and Dirty Air (Part One)." Accessed September 29, 2022. <https://www.airnow.gov/education/students/clean-and-dirty-air-part-one/>.
- Amnesty International. "Climate Change," 2022. <https://www.amnesty.org/en/what-we-do/climate-change/>.
- Anih, Sri Suryani. "Perizinan Lingkungan Dalam Undang-Undang Cipta Kerja Dan Dampaknya Terhadap Kelestarian Lingkungan." *Info Singkat*, Bidang Kesejahteraan Sosial, XII, no. 20 (2020): 13–18.

- Anton, Donald K., and Dinah L. Shelton. *Environmental Protection and Human Rights*. Cambridge, New York, Melbourne, Madrid, Cape Town, Singapore, Sao Paulo, Delhi, Tokyo, Mexico City: Cambridge University Press, 2011.
- Azubuike, Mary. "The Price of Fast Fashion: How Consumerism Fuels The Climate Crisis and Threatens Human Rights," January 26, 2021. <https://www.humanrightspulse.com/mastercontentblog/the-price-of-fast-fashion-how-consumerism-fuels-the-climate-crisis-and-threatens-human-rights>.
- BBC News Indonesia. "Cek Fakta Pernyataan Jokowi Di COP26, Aktivis Lingkungan Peringatkan 'bencana Ekologi' Karena Laju Penggundulan Hutan Justru Akan Naik." November 2, 2021.
- Berle, A. A. "For Whom Corporate Managers Are Trustees: A Note." *Harvard Law Review* 45 (June 1932): 1365–72. <https://doi.org/10.2307/1331920>.
- Boyd, David R. "Amicus Curiae Brief of the United Nations Special Rapporteur on Human Rights and the Environment," October 9, 2020. October 5, 2022. https://www.ohchr.org/sites/default/files/Indonesian_air_pollution_case.pdf.
- . "The Environmental Rights Revolution: Constitutions, Human Rights, and the Environment." Text, The University of British Columbia, 2010. <https://open.library.ubc.ca/soa/cIRcle/collections/ubctheses/24/items/1.0058239>.
- . "The Human Right to Breathe Clean Air." *Annals of Global Health* 85, no. 1 (2019): 146. <https://doi.org/10.5334/aogh.2646>.
- Bryner, Nicholas. "A Constitutional Right to a Healthy Environment." In *Research Handbook on Fundamental Concepts of Environmental Law*, edited by Douglass Fisher, 168–95. Cheltenham, UK, Northampton, MA, USA: Edward Elgar, 2016.
- Bynum, Georgia. "The Impact of Fast Fashion in Bangladesh," May 26, 2021. <https://borgenproject.org/fast-fashion-in-bangladesh/>.
- Campbell, Tom. "Rights and Responsibilities." In *Human Rights and the Moral Responsibilities of Corporate and Public Sector Organisations*, edited by Tom Campbell and Seumas Miller, Vol. 20. Issues in Business Ethics. New York, Boston, Dordrecht, London, Moscow: Kluwer Academic Publishers, 2004.
- Cima, Elena. "The Right to a Healthy Environment: Reconceptualizing Human Rights in the Face of Climate Change." *Review on European, Comparative and International Environmental Law*, Human Rights and the Climate Change Crisis, 31, no. 1 (January 2022): 38–49. <https://doi.org/10.1111/reel.12430>.
- CNN Indonesia. "Jakarta Kerap Juara Udara Terburuk Dunia, dari Mana Polusinya?" September 26, 2022. <https://www.cnnindonesia.com/teknologi/20220922144723-199-851308/jakarta-kerap-juara-udara-terburuk-dunia-dari-mana-polusinya>.
- . "Konflik Desa Wadas, Jokowi Diminta Hentikan PSN Bermasalah." February 11, 2022. <https://www.cnnindonesia.com/nasional/20220211163721-20-758162/konflik-desa-wadas-jokowi-diminta-hentikan-psn-bermasalah/1>.
- Cragg, Wesley. "Business and Human Rights: A Principle and Value-Based Analysis." In *Business and Human Rights*, edited by Wesley Cragg. Cheltenham, UK, Northampton, MA, USA: Edward Elgar, 2012.
- . "Human Rights, Globalisation and the Modern Shareholder Owned Corporation." In *Human Rights and the Moral Responsibilities of Corporate and Public Sector Organisations*, edited by Tom Campbell and Seumas Miller, Vol. 20. Issues in Business Ethics. New York, Boston, Dordrecht, London, Moscow: Kluwer Academic Publishers, 2004.
- Das, Raj. "Importance of Practicing Environmental Ethics in Workplace." *The Times of India* (blog), June 10, 2022. <https://timesofindia.indiatimes.com/blogs/voices/importance-of-practicing-environmental-ethics-in-workplace/>.

- Dinas Lingkungan Hidup Provinsi DKI Jakarta. "Pengendalian Pencemaran Udara di Provinsi DKI Jakarta." Press Release. Jakarta, December 2021. <https://jakarta.bpk.go.id/wp-content/uploads/2021/12/Catber-Pengendalian-Pencemaran-Udara-Jakarta.pdf>.
- Dodd, E. Merrick. "For Whom Are Corporate Managers Trustees?" *Harvard Law Review* 45 (May 8, 1932): 1145–63. <https://doi.org/10.2307/1331697>.
- Elkington, John. "Towards the Sustainable Corporation: Win-Win Business Strategies for Sustainable Development." *California Management Review* 36, no. 2 (1994): 90–100.
- Encinas, Luis. "Ethical Dilemmas Surrounding Manufacturing Offshoring: Assessing the Morality of Offshoring Decisions Through a Utilitarian Viewpoint." Honors Scholar Theses, University of Connecticut, 2019. https://opencommons.uconn.edu/srhonors_theses/642/.
- Eryan, Adrianus, Difa Shafira, and Etheldreda E. L. T. Wongkar. "Analisis Hukum Pembangunan Food Estate di Kawasan Hutan Lindung." Seri Analisis Kebijakan Kehutanan dan Lahan. Jakarta: Indonesian Center For Environmental Law, December 18, 2020. https://icel.or.id/storage/seri_analisis/1646667845.pdf.
- European Court on Human Rights. "Factsheet – Environment and the ECHR," 2022. https://www.echr.coe.int/Documents/FS_Environment_ENG.pdf.
- Farrow, Aidan, Kathryn A. Miller, and Lauri Myllyvirta. "Toxic Air: The Price of Fossil Fuels." Greenpeace South East Asia, February 2020.
- Fathi, Nazila. "Safety First: Bangladesh Garment Industry Rebounds." *IFC Insights*, November 2019. https://www.ifc.org/wps/wcm/connect/news_ext_content/ifc_external_corporate_site/news+and+events/news/insights/bangladesh-garment-industry.
- Fitzmaurice, Malgosia, and Jill Marshall. "The Human Right to a Clean Environment—Phantom or Reality? The European Court of Human Rights and English Courts Perspective on Balancing Rights in Environmental Cases." *Nordic Journal of International Law* 76 (2007): 103–51. <https://doi.org/10.1163/090273507X225729>.
- Friedman, Milton. "The Social Responsibility of Business Is to Increase Its Profits." *The New York Times*. September 13, 1970.
- Greenpeace Indonesia. "Jakarta's Silent Killer." Jakarta: Greenpeace South East Asia, October 2017. <https://www.greenpeace.org/static/planet4-southeastasia-stateless/2020/10/48d34259-jakartas-silent-killer-report-oct-24-2017-1.pdf>.
- Greenstone, Michael, and Qing (Claire) Fan. "Indonesia's Worsening Air Quality and Its Impact on Life Expectancy." Energy Policy Institute at The University of Chicago, 2019. <https://aqli.epic.uchicago.edu/wp-content/uploads/2019/03/Indonesia-Report.pdf>.
- Guillerm, N., and G. Cesari. "Fighting Ambient Air Pollution and Its Impact on Health: From Human Rights to the Right to a Clean Environment." *The International Journal of Tuberculosis and Lung Disease*, State of the Art, 19, no. 8 (2015): 887–97. <http://dx.doi.org/10.5588/ijtld.14.0660>.
- Halbert, Terry, and Elaine Ingulli. *Law & Ethics in the Business Environment*. 6th ed. Mason, OH: South-Western Cengage Learning, 2009.
- Haryanto, Budi. "Climate Change and Urban Air Pollution Health Impacts in Indonesia." In *Climate Change and Air Pollution: The Impact on Human Health in Developed and Developing Countries*, edited by Rais Akhtar and Cosimo Palagiano, XIV, 430. Springer Climate. Cham: Springer, 2018.
- Haryanto, Budi, and Peter Franklin. "Air Pollution: A Tale of Two Countries." *Reviews on Environmental Health* 26, no. 1 (2011): 53–59. <https://doi.org/10.1515/REVEH.2011.008>.
- Haryono, Erwin. "Ekonomi Indonesia Tumbuh Tinggi Pada Triwulan II 2022," August 5, 2022. <https://www.bi.go.id/id/publikasi/>

ruang-media/news-release/Pages/
sp_2420622.aspx.

- Huck, Winfried, Jennifer Maaß, Saparya Sood, Tahar Benmagnia, Alexander Schulte, Sarah Mailin Heß, and Marc-Anthony Walter. "The Right to Breathe Clean Air and Access to Justice: Legal State of Play in International, European and National Law." *SSRN Electronic Journal* 13, no. 10 (March 2021): 1–22. <https://doi.org/10.2139/ssrn.3808572>.
- IQAir. "2021 World Air Quality Report," 2021.
- Jankovic, Sava. "Conceptual Problems of the Right to Breathe Clean Air." *German Law Journal* 22, no. 2 (March 2021): 168–83. <https://doi.org/10.1017/glj.2021.1>.
- Keluarga Mahasiswa Manajemen Hutan UGM. "Kontroversi UU Ciptaker Mengenai Penghapusan Batas Minimal Kawasan Hutan Sebesar 30 Persen," July 29, 2022. <https://kmmh.fkt.ugm.ac.id/2021/07/29/kontroversi-uu-ciptaker-mengenai-penghapusan-batas-minimal-kawasan-hutan-sebesar-30-persen/>.
- Kementerian Investasi/BKPM. "Ease of Doing Business di Indonesia Terus Membaik." Government, 2018. <https://www.investindonesia.go.id/id/artikel-investasi/detail/ease-of-doing-business-di-indonesia-terus-membaik>.
- Kompas.com. "Pidato Visi Indonesia, 5 Tahapan Besar yang Disebut Jokowi." July 14, 2019. <https://nasional.kompas.com/read/2019/07/14/22171281/pidato-visi-indonesia-5-tahapan-besar-yang-disebut-jokowi>.
- Kotiuk, Irmina, Adam Weiss, and Ugo Taddei. "Does the European Convention on Human Rights Guarantee a Human Right to Clean and Healthy Air? Litigating at the Nexus between Human Rights and the Environment – the Practitioners' Perspective." *Journal of Human Rights and the Environment*, no. 13 (September 30, 2022): 122–51. <https://doi.org/10.4337/jhre.2022.00.04>.
- Lippman, Matthew R. *Law and Society*. 2nd ed. Thousand Oaks, CA: SAGE Publications, 2017.
- Massachusetts v. EPA, 549 U.S. 497 (2007) (US Supreme Court 2007).
- Mehta, Shivani. "Garment Worker Exploitation: An International Human Rights Problem." *Human Rights Pulse: Make Justice a Priority* (blog), August 2020. <https://www.humanrightspulse.com/mastercontentblog/garment-worker-exploitation-an-international-human-rights-problem>.
- Misonne, Delphine. "The Emergence of a Right to Clean Air: Transforming European Union Law through Litigation and Citizen Science." *Review of European, Comparative & International Environmental Law* 30, no. 1 (May 6, 2020): 34–45. <https://doi.org/10.1111/reel.12336>.
- Mosley, Stephen. "Environmental History of Air Pollution and Protection." edited by Mauro Agnoletti and Simone Neri Serneri, Vol. 4. *Environmental History*. Heidelberg, New York, Dordrecht, London: Springer, 2014.
- Nanda, Ved P., and George (Rock) Pring. *International Environmental Law and Policy for the 21st Century*. 2nd ed. Vol. 9. *International Environmental Law*. Leiden and Boston: Martinus Nijhoff Publishers, 2013.
- Nazir, Mohammad. *Metode Penelitian*. Jakarta: Ghalia Indonesia, 2003.
- Newton, Lisa H. *Business Ethics and the Natural Environment*. 1st ed. Foundations of Business Ethics. Malden, Oxford, Victoria: Blackwell Publishing, 2005.
- Niinimäki, Kirsi, Greg Peters, Helena Dahlbo, Patsy Terry, Timo Rissanen, and Alison Gwilt. "The Environmental Price of Fast Fashion." *Nature Reviews Earth & Environment* 1 (2020): 189–2020. <https://doi.org/10.1038/s43017-020-0039-9>.
- Putusan No 374/Pdt.G/LH/2019/PN JKT. PST (Pengadilan Negeri Jakarta Pusat 2021).
- Putusan No.549/PDT.G-LH/2022/PT DKI (Pengadilan Tinggi DKI Jakarta 2022).
- R (on the application of ClientEarth) v Secretary of State for the Environment, Food and Rural Affairs (UK Supreme Court April 29, 2015).

- Republic of Indonesia. "Naskah Akademis RUU Tentang Cipta Kerja." Jakarta, November 20, 2020. <https://uu-ciptakerja.go.id/naskah-akademis-ruu-tentang-cipta-kerja/>.
- Republik Indonesia. "Peraturan Pemerintah No. 22 Tahun 2021 Tentang Penyelenggaraan Perlindungan Dan Pengelolaan Lingkungan Hidup," 2022.
- . "Undang-Undang Dasar Republik Indonesia," 1945.
- . "Undang-Undang No.32 Tahun 2009 Tentang Perlindungan Dan Pengelolaan Lingkungan Hidup," 2009.
- . "Undang-Undang No.36 Tahun 2009 Tentang Kesehatan," 2009.
- Rodríguez-Garavito, César. "A Human Right to a Healthy Environment? Moral, Legal and Empirical Considerations." In *The Human Right to a Healthy Environment*, edited by John H. Knox and Ramin Pejan, 155–68. Cambridge: Cambridge University Press, 2018.
- Setzer, Joana, and Catherine Hingam. "Global Trends in Climate Change Litigation: 2021 Snapshot." London: Grantham Research Institute on Climate Change and the Environment and Centre for Climate Change Economics and Policy, London School of Economics and Political Science., July 2021.
- Shafie, Siti Haslina Mohd, Mohamad Suzani, Nor Lita Fadilah Rameli, and Sahala Benny Pasaribu. "Analysis of Urban Air Pollution and The Effectiveness of Air Pollution Control Policy in Malaysia: Case Study in Klang Valley, Malaysia." *Jurnal Cita Hukum* 9 (2021): 13–28. <https://doi.org/10.15408/jch.v9i1.20018>.
- Simon, Sarah J. *Protecting Clean Air: Preventing Pollution*. 1st ed. Place: Momentum Press, 2018.
- Spîrchez, Georgeta-Bianca. "The Relation Between Ethics and Law." *Fiat Iustitia* 1 (2016): 189–97.
- Stanwick, Peter, and Sarah Stanwick. "The Garment Industry in Bangladesh: A Human Rights Challenge." *Journal of Business & Economic Policy* 2 (4) (December 2015): 40–44.
- Supraptini. "Pengaruh Limbah Industri Terhadap Lingkungan di Indonesia." *Media Penelitian dan Pengembangan Kesehatan* 12, no. 2 (June 2002): 10–19.
- Susetyo, Pramono Dwi. "Konsekuensi Penghapusan Luas Hutan 30%." *Forest Digest*, May 10, 2022. <https://www.forestdigest.com/detail/1725/penghapusan-luas-hutan-30-persen>.
- UN Office of the High Commissioner for Human Rights. "Guiding Principles on Business and Human Rights: Implementing the United Nations 'Protect, Respect and Remedy' Framework." New Jersey & Geneva, 2011. https://www.ohchr.org/sites/default/files/documents/publications/guidingprinciplesbusinesshr_en.pdf.
- Wattimena, Josina Augusthina Yvonne Wattimena. "Pemenuhan Hak atas Air Bersih dan Sehat, Serta Hak Menggugat Masyarakat." *Balobe Law Journal* 1, no. 1 (April 1, 2016): 1–16.
- Wibisana, Andri Gunawan. "Pengelolaan Lingkungan Melalui Izin Terintegrasi Dan Berantai: Sebuah Perbandingan Atas Perizinan Lingkungan di Berbagai Negara." *Jurnal Hukum dan Pembangunan* 48, no. 2 (2018): 222–55. <http://dx.doi.org/10.21143/jhp.vol48.no2.1662>.
- Widaryanto, Pungky. "Rasionalitas Kebijakan Konsepsi Hutan dan Penghapusan Batas Minimal Kawasan Hutan 30 Persen." *Rimba Indonesia* 68 (April 2021): 24–30.
- World Health Organization. "What Are the WHO Air Quality Guidelines?," September 22, 2021. <https://www.who.int/news-room/feature-stories/detail/what-are-the-who-air-quality-guidelines>.