



Corporation's Liability on Illegal Dumping's Impact on Climate Change according to the UNFCCC and its Implementation in Indonesia

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Received: March 16, 2022 Accepted: May 25, 2022 Online Published: May 30, 2022

Abstract

Corporation illegal dumping's impact on climate change illustrates that corporate economic crime in the environmental field (waste disposal) has a broad effect yet no significant correlation. If this correlation is adequately studied, it can contribute to enforcing legal accountability and optimizing efforts to reduce climate change. To see this correlation, it is necessary to ask whether a corporation has an economic interest that is fought for in disposing of waste irresponsibly and whether parties whose economic interests are harmed. As one of The United Nations Framework Convention on Climate Change (UNFCCC's) members, Indonesia is a country that predominantly relies on its natural resources, while climate change is very detrimental to nature. This research is normative-juridical research which uses secondary type data. Research shows that The UNFCCC does not explicitly prohibit illegal dumping, but it does specify waste management guidelines that are not hazardous to the environment or public safety. Indonesia has ratified the UNFCCC instrument by through Law No. 6 of 1999. From this ratification, Indonesia's effort to reduce illegal dumping is seen through Environmental Protection and Management Plan, Strategic Environmental Studies, and Government Regulation no. 47 of 2012 concerning Social and Environmental Responsibility of Limited Liability. The economic interest of a corporation that illegally dumps is to avoid spending money because the procedure of adequate waste management is high cost.

Keywords: Climate Change, Illegal Dumping, UNFCCC, Indonesia.

1. Introduction

1.1 Corporation's Liability on Illegal Dumping

Development in Indonesia is at a stage that is increasing the attention and involvement of globalization in the industrial sector through corporations (Ratomi et al., 2018). Corporations have a considerable influence as a significant economic subject compared to individuals. Therefore, the losses incurred by the corporation are also very influential. Corporate crime is a form of economic crime that can disrupt the balance of stability (Supriyanta, 2007). Corporate crime is a form of economic crime that can disrupt the balance of economic stability and the state financial system (Disemadi and Jaya, 2019). In addition, corporate crime threatens social life. Corporate crime consists of fraud, fraud, smuggling facts, breach of trust, and avoiding regulations (Puspitasari and Devintawati 2018, p 240). One of the corporate crimes that often occurs is a crime against the environment through irresponsible waste disposal (Kadek, Putri, and Sudiarawan, 2020).

Corporations that carry out waste disposal do not maintain their commitment to maintaining environmental quality by following applicable laws and regulations and only pay attention to ways to seek maximum profit and income (Arfa, 2019). According to J. Barros and M. Johnston, industrial activities that produce waste in hazardous substances are a form of environmental pollution due to the irresponsible disposal of corporate waste (Hendra et al., 2020). One example is the waste disposal carried out by PT Centram Pasuruan in East Java that pollutes the river, which is the source of local community activities. In this case, the defendant was sentenced to 8 months in prison and a fine of Rp. 10 million through Surabaya District Court Judgment No.

3628/Pid.B/2011/PN.SBY.(Pakpahan & Firdaus, 2020). The indiscriminate disposal of waste carried out by these corporations significantly affects environmental pollution because, through waste containing these toxic materials, the quality of natural resources can be disrupted. Natural resources with poor quality will affect health, cause economic losses, and ethically will not be used by the community. In addition, the environmental damage caused by the disposal of industrial waste contributes and is related to climate change because a polluted environment cannot support the mitigation and adaptation process of climate change (Ulfa, 2019).

1.2. The Importance of the Problem

Climate change is one of the global problems that significantly influence the world's population and is continuously being discussed in international and national forums. The impact of climate change can be seen in rising sea levels, extreme weather changes, and natural disasters (Lomba-fern et al., 2019). The government has handled the impacts of climate change through increased mitigation to reduce and prevent further impacts of climate change. The importance of the problem lies in the corporation's negative contribution that will escalate climate change. Indonesia is a developing country whose economy is highly dependent on natural resources. This is evidenced by Indonesia, a maritime and agricultural country, where most Indonesian people work as fishermen and/or farmers (Saputra & Yudistira, 2021). The quality of nature determines the production and operations of fishers and farmers. Therefore, climate change has a vital role related to the economy in Indonesia. Climate change is a constant but unpredictable issue in international forums. Natural disasters as one of the impacts of climate change have allocated countries' focus on balanced actions between mitigation and adaptation in a resilient manner. Both actions to deal with the impacts of climate change are regulated in the United Nations Framework Convention (UNFCCC). Previously, there were several pioneers in this research, among them are:

- a. Arief Wijaya, Hanny Chrysolite, Mengpin GE, Glorinda Kurnia Wibowo, Almo Pradana, Andytha Fireselly Itami, and Kemen Austin, "How can Indonesia Achieve its Climate Change Mitigation Goal? An Analysis of Potential Emission Reduction from Energy and Land-Use Policies" (*World Resources Institute*, 2017);
- b. Eldi Sofia, "Implikasi Hukum Paris Agreement Melalui Program REDD+ Berbasis Blue Carbon di Indonesia" (Eldi Sofia, 2019).
- c. H.S. Tisnanta, Ria Wierma Putri, Orima Davey, "Realizing City Resilience towards Climate Change and the Correlation with Sustainable Development Goals' Framework in Indonesia (Fulfilling a Global Demand, AIP Conference Proceedings, 2022).

These previous studies have shown the urgency of climate change in developing countries, especially Indonesia, which is very reliable towards its natural resources. However, these studies have not highlighted the interlinkage between corporations contribution toward climate change through illegal dumping and economic interests. Therefore, the research will analyze two problems: (1) what are the impacts of climate change due to illegal dumping by the corporation according to the UNFCCC and its implementation in Indonesia? (2) How is the economic interest of a corporation in performing illegal dumping?

1.3 State of Hypotheses

The UNFCCC has been ratified by 197 countries and promotes the welfare of developing countries, Indonesia, for example. Indonesia is a country that predominantly relies on its natural resources, while climate change is very detrimental to nature. Therefore, Indonesia is considered vulnerable in this situation, and further actions are expected to monitor it. The fact that the illegal disposal of a corporation's waste impacts climate change gives a conclusion that the scope of corporate economic crime in the environmental field (waste disposal) has a broad impact with a not-so-significant correlation. However, these correlations are interrelated and, if studied in-depth, can be a contribution that Indonesia needs, both in terms of legal accountability and as an effort to reduce the factors driving climate change.

2. Method

The research method used in this study's scope is the normative juridical research method, using the descriptive analysis method, with the types and sources of secondary data in primary legal materials, secondary legal materials, and tertiary legal materials. This type of research is normative research that descriptively examines humans, circumstances, and other phenomena to strengthen old theories and support new theories that are still in the drafting stage. The research uses an approach to formulate the problem and research objectives (Soekanto & Mamudji, 1995). The data sources used are primary legal materials, secondary legal materials, and tertiary legal materials (Soekanto & Mamudji, 1995).

3. Result

The study aims to examine the impact of climate change due to illegal dumping by the corporation according to the UNFCCC and its implementation in Indonesia and describe the economic interest of a corporation in performing illegal dumping.

3.1 *The Impact of Climate Change Due to Dumping by Corporations According to the UNFCCC*

International Law has regulated climate change for decades. Besides the UNFCCC, The Paris Agreement to the United Nations Framework Convention on Climate Change (Paris Agreement) was adopted by member states of the United Nations Framework Convention on Climate Change on 12 December 2015 as a legally binding framework (David, 2020). The agreement results from an international agreement consisting of standards in dealing with obstacles related to climate change. The Paris Agreement to the United Nations Framework Convention on Climate Change (Paris Agreement) was adopted by member states of the United Nations Framework Convention on Climate Change on 12 December 2015 as a legally binding framework. The agreement results from an international agreement consisting of standards in dealing with obstacles related to climate change. The Kyoto Protocol's mechanisms for reducing greenhouse gas emissions are Emission Trading, the Clean Development Mechanisms, and Joint Implementation. Like the convention, the Kyoto Protocol supports an adaptation approach to developing countries that are member countries of the Kyoto Protocol through the Adaptation Fund program, where financing is used to implement projects that support the adaptation (Rötzer & Schmidt, 2020).

The United Nations Framework Convention on Climate Change (UNFCCC) The convention considers the vulnerability of each country to the impacts of climate change, especially developing countries. After several years of emphasizing mitigation, the convention and the parties involved have now agreed to use an adaptive approach (Kalesnik et al., 2021). The Secretariat of the United Nations Framework Convention on Climate Change has provided adaptation guidelines for dealing with climate change. These adaptations are divided into reactive adaptation and anticipatory adaptation, categorized into aspects of water resources, agriculture, food, health, terrestrial ecosystems, coastal zones, and marine ecosystems.

Tabel 1. Alternative Options to Reduce Methane Emission from Landfill

Considerations	Recovery and Utilization	Alternative Waste Management Practices
Recovery	Recovery Wells	Source reduction
Gas Use	Electricity Generation	
Availability	Available	Available
Capital Requirements	Medium	Low/Medium
Technical Complexity	Medium/high	Low/Medium
Applicability	Nearby gas use	Widely Applicable
Methane Reduction	50-80%	Up to 100%

Source: UNFCCC Guidebook

Table 1 shows that the UNFCCC does not deliberately regulate directly on illegal dumping, but it provides standards on waste management that are not harmful to the environment and public safety. The guidebook provided by UNFCCC has formed a legal basis for its member states to actively play their role in dealing with the future issue of climate change through the effort to reduce methane emissions from landfills.

3.2 *The Implementation of UNFCCC in Indonesia*

It is necessary to protect and manage the environment. Indonesia has implemented UNFCCC through Law No. 6 of 1994. Indonesia, regarding the environment, also focuses on climate change, namely Law No. 32 of 2009 concerning Environmental Protection and Management (UUPPLH). UUPPLH discusses climate change in several articles. First, UUPPLH was formed by considering that climate change caused by global warming significantly affects the decline in environmental quality. The mapping regulation regarding climate change under UUPPLH can be illustrated by the table as follow:

Table. 2 Climate Change Regulation in UUPPLH

No.	Protection	Regulation	Terms
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1.	RPPLH	Art. 10 paragraph (1)	RPPLH contains plans for adaptation and mitigation to climate change.
2.	KLHS	Art. 16 point f	KLHS contains the level of resilience and potential for biodiversity.
3.	Atmosphere function preservation	Art. 57 paragraph (4)	Preservation of atmospheric functions includes efforts to mitigate and adapt to climate change

*RPPLH: *Rencana Perlindungan dan Pengelolaan Hidup* (or translated as Environmental Protection and Management Plan), KLHS: *Kajian Lingkungan Strategies* (or translated as Preservation of Atmospheric Functions)

Based on the table, the UUPLH has provided adequate protection in dealing with the impacts of climate change through the Environmental Protection and Management Plan and the Preservation of Atmospheric Functions. Moreover, in ensuring the implementation of UUPLH, the government of Indonesia has enacted a relevant strategy outlined in Medium-Term Development Plan (or *Rencana Pembangunan Jangka Menengah Nasional*). The RPJMN outlines a disaster and climate resilience strategy that includes (*Rencana Pembangunan Jangka Menengah Nasional Tahun 2020-2024*, 2020).

a. *Natural Disaster Countermeasures*

Strategies in disaster management (a) Strengthening Disaster Data, Information, and Literacy; (b) Strengthening Disaster systems, Regulation, and Governance; (c) Improvement of Disaster Infrastructure Facilities; (d) Integration of Disaster Risk-based Policy Cooperation and Spatial Planning; © Strengthening Disaster Emergency Management; (f) Implementation of rehabilitation and reconstruction in disaster-affected areas; and (g) Strengthening the integrated multi-threat disaster mitigation system.

b. *Improved climate resilience*

The strategy to increase climate resilience is implemented by implementing the National Plan for Climate Change Adaptation (RANAPI) in priority sectors through (a) Increasing climate resilience in the marine and coastal sectors; (b) Increasing the climate resilience of the water sector; (c) Increasing the climate resilience of the agricultural sector through the use of geospatial data and information; and (d) Increasing the climate resilience of the health sector.

3.3 *Indonesia's Regulation on Corporation Liability Towards Illegal Dumping*

To date, in the matter of corporation liability regulation towards illegal dumping follows has outlined under several instruments as follows;

a. *Corporation Liability on Illegal Dumping Based on Indonesia's Criminal Law*

Indonesia's criminal law, or *Kitab Undang-Undang Hukum Pidana* (KUHP), indirectly regulated liability corporations towards the individual or legal entities in Article 44. However, the definition of responsibility is not regulated explicitly but through an interpretation. The provisions of Article 44 of the Criminal Code only explain parties who cannot be convicted because they are mentally unhealthy or imperfect. So, Article 44 of the Criminal Code is only an indicator if an individual is proven not to meet the elements of mental disability in the article. If the individual is healthy in committing a crime intentionally, negligently, and/or does not meet the element of forgiveness, the individual may be subject to criminal sanctions (Anjari, 2016).

b. *Corporation Liability on Illegal Dumping Based on Emergency Law No. 7 of 1955 concerning the Investigation, Prosecution, and Judiciary of Economic Crimes*

Emergency Law No. 7 of 1955 concerning the Investigation, Prosecution, and Judiciary of Economic Crimes or the Law on Economic Crimes regulates the legal liability of corporations in Article 15. Article 15 of the Criminal Act outlines economic crimes committed by legal entities. Unions, foundations, and a company against the giver of orders or leaders who prove negligence. However, the Law on Economic Crimes only regulates from an economic perspective, not an environmental perspective (Utama, 2018).

c. *Corporation Liability on Illegal Dumping Based on Law No. 40 of 2007 on Limited Company*

In-Law no. 40 of 2007 concerning Limited Liability Companies or the Limited Liability Company Law, which covers the environmental sector, corporate legal liability is regulated in Article 74. Article 74 of the Limited Liability Company Law stipulates that the business activities in contact with natural or environmental resources are social and environmental responsibilities that the corporation must carry out. The implementation is carried out following further provisions contained in Government Regulation No. 47 of 2012 concerning Limited Companies' Social and Environmental Responsibility. Because it is mandatory,

considering that the social and environmental responsibilities are budgeted for, corporations that do not carry out these social and environmental responsibilities will be subject to sanctions (M. Ulfa, 2018, p 48). However, it should be noted that the responsibilities stipulated in the Limited Liability Company Law are preventive, so they are not a legal consequence of crimes committed by corporations that dispose of waste illegally. Nevertheless, disposing of waste irresponsibly has violated the objectives and principles of social and environmental responsibility of a corporation, namely to prevent environmental damage.

d. *Corporation Liability on Illegal Dumping Based on Law No. 32 of 2009 on Protection and Management of the Environment*

Law No. 32 of 2009 on Protection and Management of the Environment or Undang-Undang Lingkungan Hidup (UUPPLH) has regulated the disposal of waste by corporations. The regulation of UUPPLH is regulated in Article 1 number (32), Article 104, Article 116, Article 117, Article 118, and Article 119. Article 1 number (32) UUPPLH states that corporations are part of legal subjects in an arrangement that is included in the term “each person” (Dayani et al., 2017). Then UUPPLH specifically regulates sanctions against corporations that dispose of waste in the environment illegally, precisely in Article 104. As a result of violating Article 104, the subject will be sentenced to imprisonment for a maximum of 3 (three) years and a maximum fine of 3 billion IDR. Meanwhile, corporate responsibility is regulated in Articles 116-Article 119. UUPPLH explains that criminal charges are imposed on business entities or those who are leaders of the corporation. If the leader orders the perpetrator, the punishment is given to the leader. In addition to imprisonment and fines, UUPPLH stipulates that additional penalties are imposed, namely confiscation of profits, closing of business premises, requiring repairs without rights, and forgiveness (Kadek et al., 2020).

e. *Corporation Liability on Illegal Dumping Based on Law No. 18 of 1999 on Management of hazardous wastes and toxic*

Based on Law no. 18 of 1999 concerning Hazardous and Toxic Waste Management or the B3 Waste Management Act, the legal liability of corporations that pollute the environment through illegal waste disposal has been regulated in Article 55 of the B3 Waste Management Act. Article 55 of the B3 Waste Management Law regulates if the waste disposal carried out by the corporation pollutes the environment or has the potential to damage the environment. Then everyone has the right to report it to the responsible parties, either orally or in writing. Then, the report will be submitted by the competent authority a maximum of 3 (three) days after the report is received. Article 62 and Article 63 of the Hazardous Waste Management Law regulates sanctions against parties who violate the provisions of the law. These parties are producers, transporters, processors, collectors, and hoarders. Suppose these parties do not heed the warning from the competent authority. In that case, the violating party will be subject to administrative sanctions and criminal sanctions as stipulated in Law no. 32 of 2009 concerning Environmental Protection and Management (Dianjaya & Epira, 2020).

f. *Corporation Liability on Illegal Dumping Based on Government Regulation No. 47 of 2012 on Social and Environmental Responsibility of Limited Company*

Article 3 in Government Regulation no. 47 of 2012 concerning Social and Environmental Responsibility of Limited Liability Companies stipulates that this responsibility is an obligation for every corporation that carries out business related to natural resources. The social and environmental responsibility is carried out flexibly either outside or within the company’s territory as long as it is appropriate (Utama, 2018, p 30). In addition, the implementation of social responsibility is based on the company’s annual work plan so that the responsibility has a budget (Rachmawati et al., 2022).

To facilitate legal liability, the research formulates several perspectives on the legal liability of a corporation in the disposal of illegal waste through the following table:

Table 3. Legal Liability of a Corporation’s Illegal Dumping

No.	Article and Regulation	Fields	Characteristic
1.	Art. 44 Of KUHP	General Crime	Fundamental Provisions
2.	Art. 15 of Emergency Law No. 7/1955	Economy	Repressive
3.	Art. 74 Of Law 40/2007	Economy and Environment	Preventive
4.	Art. 1, Art. 104, Art. 116-119 Of Law No. 32/2009	Environment	Preventive and Repressive

5.	Art. 55 And Art. 62-62 Of GR No. 18/1999	Environment	Preventive and Repressive
6.	Art. 3 GR No. 47/2012	Economy And Environment	Preventive

Source: Author's authentic data

Even though Indonesia has ratified UNFCCC and has a comprehensive law mechanism regarding illegal dumping, there are still cases where corporations in Indonesia commit illegal dumping: (Perikanan, 2022)

Table 4. Cases of Illegal Dumping by Corporation Post UNFCCC Ratification

No.	Year	Case	Location
1.	2016	Fishermen Complain about Disposal of Factory Waste in the Sea	Cilacap
2.	2019	Mounds of soil suspected to be waste of toxic and hazardous materials (B3)	Marunda Area
3.	2019	PT Nasional Indo Mina is suspected of dumping liquid waste into the sea, which has an impact on environmental pollution	Tuban
4.	2019	Factory waste dumped into the sea	Lampung Bay
5.	2019	disposal of tofu factory waste causes and impact on marine ecosystems and causes skin diseases.	Jambula Village
6.	2020	Waste Environmental Pollution of PT Agrindo Surya Abadi allegedly dumped into the river	Tanjung Balai
7.	2020	PT IVO Mas Tunggal throws waste into the sea, causing the surrounding mangrove ecosystem to die	Dumai Sea
8.	2020	PT Ultra Prima Abadi has dumped liquid waste carelessly into the river.	Baujeng Village, Beji District, Pasuruan Regency.
9.	2020	Plastic management factory disposes of indiscriminate waste that causes foam.	Sumbergedang River, Pandaan District

4. Discussion

It cannot be denied that the impact of climate change is inevitable and thus demands a comprehensive strategy both in legislative and technical measures. Table 1 regarding the alternative options to reduce methane emissions from landfills shows that the UNFCCC does not deliberately regulate directly on illegal dumping. Still, it provides waste management standards that are not harmful to the environment and public safety. The guidebook provided by UNFCCC has formed a legal basis for its member states to actively play their role in dealing with the future issue of climate change through the effort to reduce methane emissions from landfills. Indonesia, which has ratified the instrument of UNFCCC through its Law No. 6 of 1999, has blatantly submitted to this international instrument (Maritha, 2020, p 100). Moreover, through its national laws, namely Law No. 32 of 2009 concerning Environmental Protection and Management (UUPPLH), Indonesia has provided protection that aims explicitly to deal with the impacts of climate change. These laws are under the Environmental Protection and Management Plan or *Rencana Perlindungan dan Pengelolaan Hidup* (RRPLH), Strategic Environmental Studies, or *Kajian Lingkungan Hidup Strategies* (KLHS), and preservation of atmospheric functions. In this regard, Indonesia is committed to implementing policies that support the defense against climate change, one of which is reducing the use of carbon emissions. Furthermore, Indonesia has outlined a strategy for dealing with climate change in Chapter 7 of its 2020-2024 Medium-Term Development Plan (RPJMN), namely "Building the Environment, Increasing Disaster Resilience and Climate Change".

The corporation is one of the main parties that significantly increase carbon emissions due to its illegal dumping. The United States Environmental Program stated that the industry sector causes 23% of greenhouse gas emissions. The act of illegal dumping indeed poses one of the significant reasons for climate change. Therefore, these corporation has the liability in ensuring that their dumping will not stimulate the impact of climate change (Rahayu, 2009). According to the Carbon Brief Profile, Indonesia is the fourth highest greenhouse contributor globally. The liability of a corporation can be studied through the case of PT Nirmala Tipar Sesama (NTS). The Ministry of Environment and Forestry of the Republic of Indonesia arrested PT Nirmala Tipar Sesama's (NTS) Director after the company that runs hazardous and toxic waste management violated regulations. PT NTS illegally dumped hazardous and toxic waste such as sludge oil, polluted oil, bottom ash, and polluted soil into an

open area. These disposals cause heavy metal contamination such as arsenic, barium, hexavalent chromium, copper, lead mercury, zinc, and nickel. Excessive metal in the soil does not only poisons plants and organisms but is also implicated in environmental pollution. Supervising Officials on the Environment or *Pejabat Pengawas Lingkungan Hidup* (PPLH) found illegal use of hazardous and toxic waste; collection in an area with no license, and dumping of hazardous and toxic waste into an environment without a permit. Hazardous and toxic waste contamination by PT NTS is a severe crime since it affects the societies' health and environmental safety (Utami & Syafrudin, 2018). In the economic aspect, illegal dumping is a form of economic crime. The act is against the law and is punishable by criminal sanctions. The fulfillment of elements of the economic crime is the same as elements of criminal acts in general. According to Conklin, the elements of an economic crime are as follows (Rahayu, 2009):

- a. It is carried out by someone on behalf of a corporation actively working in the corporation in the industrial or trade sector.
- b. Aims to earn money, avoid spending money or loss, and gain profit.

Based on these elements, PT Nirmala Tipar Sesama has fulfilled all the provisions above, which means that the company has performed illegal dumping. First, the company has violated laws prohibiting hazardous dumping in the environment. Second, the company has fulfilled by directly dumping the substance into the environment. Third, the economic interests lie in avoiding spending expenses due to maintenance. Table 3 concerns the legal liability of a corporation's illegal dumping impacts the environment both preventively or preventively and repressively or by the implementation. Thus, more regulations in the table are preventive rather than repressive because the environment is irreversible or cannot be restored. The environment is a challenging medium to repair if it has been polluted; damage to the environment will affect the ecosystem of living things intertwined. Therefore, it is very wise if legal liability for corporations that dispose of waste illegally is preventive. In this regard, Indonesia has enacted several legal instruments in regulating economic crime regarding the illegal dumping by the corporation.

5. Conclusion

The UNFCCC does not expressly forbid illegal dumping, but it does provide waste management rules that are not harmful to the environment or public safety. The UNFCCC's rulebook has laid a legal platform for its member nations to actively participate in solving future climate change issues such as landfill methane emissions. Indonesia has accepted the UNFCCC by Law No. 6 of 1999. Indonesia's efforts to reduce illegal dumping can be seen in the Environmental Protection and Management Plan, *Rencana Perlindungan dan Pengelolaan Hidup* (RRPLH), Strategic Environmental Studies, or *Kajian Lingkungan Hidup Strategies* (KLHS), and Government Regulation no. 47 of 2012 concerning Social and Environmental Responsibility of Limited Liability. The connections between waste management, economic crime, and climate change are intertwined. An illegal dumping company's economic incentive is to avoid paying money or losing money because proper trash treatment is expensive. Finally, national policies that implement climate change bind this integration together.

Acknowledgments

We are very humbled to learn that our paper has been published in the Journal of Advances in Social Sciences and Policy (JASSP). This achievement would be impossible if not for the outstanding support we have received. Therefore, we dedicate our highest appreciation to the parties that have realized this research, especially during its process. With our utmost pleasure, we express our regards to the Faculty of Law, Universitas Lampung, for providing us amount less support and encouragement. As the head of this research, I, Elman, sincerely thank my fellow authors, Melly, Jean-Baptiste, and Orima, for their efforts and hard work throughout the paper's completion.

References

- Anjari, W. (2016). Pertanggungjawaban Korporasi Sebagai Pelaku Tindak Pidana. *Jurnal Ilmiah Widya Yustisia*, 1(2), 116–121.
- Arfa, N. (2019). Penegakan Hukum Pidana Terhadap Pelaku Tindak Pidana Dumping Limbah ke Media Lingkungan Hidup Tanpa Izin di Wilayah Hukum Pengadilan Negeri Muara Bulian. *Jurnal Sains Sosio Humaniora*, 3(1), 112–120. <https://doi.org/10.22437/jssh.v3i1.7139>
- David, A. (2020). *Corporate And Individual Environmental Responsibility Towards Automobile*. Book Rivers.
- Dayani, R. J., Astuti, A. M. E. S., Studi, P., Ilmu, S., Hukum, F., & Diponegoro, U. (2017). peranan penting dalam pembangunan perundang-undangan pidana maupun korporasi jika dilakukan oleh orang- Beberapa peranan yang diharapkan pada korporasi didalam proses modernisasi atau pembangunan ., 6(62), 1–15.
- Dianjaya, A. R., & Epira, P. (2020). Indonesia Green Economy Implementation Readiness of Greenhouse Gas Emissions Reduction. *Journal of Contemporary Governance and Public Policy*, 1(1), 27–40.

- <https://doi.org/10.46507/JCGPP.V1I1.5>
- Disemadi, H. S., & Jaya, N. S. P. (2019). PERKEMBANGAN PENGATURAN KORPORASI SEBAGAI SUBJEK HUKUM PIDANA DI INDONESIA. *JURNAL HUKUM MEDIA BHAKTI*, 0(0), 2580–7277. <https://doi.org/10.32501/JHMB.V3I2.38>
- Kadek, N., Putri, E. W., & Sudiarawan, K. A. (2020). KARAKTERISTIK PERTANGGUNGJAWABAN KORPORASI PADA TINDAK PIDANA PERUSAKAN LINGKUNGAN HIDUP DI INDONESIA. *Kertha Semaya : Journal Ilmu Hukum*, 8(11), 1717–1728. <https://doi.org/10.24843/KS.2020.V08.I11.P05>
- Kalesnik, V., Wilkens, M., & Zink, J. (2021). Green Data or Greenwashing? Do Corporate Carbon Emissions Data Enable Investors to Mitigate Climate Change? *SSRN Electronic Journal*, 1–52. <https://doi.org/10.2139/ssrn.3722973>
- Lomba-fern, C., Hernantes, J., & Labaka, L. (2019). Guide for Climate-Resilient Cities: An Urban Critical Infrastructures Approach. *Sustainability*, 2–19.
- Maritha, D. (2020). Climate Change: PERUBAHAN IKLIM: FUNDAMENTAL DAN ULASAN PERATURAN DI INDONESIA. *Jurnal Transformasi Administrasi*, 10(01), 98–120.
- Pakpahan, R. H., & Firdaus, A. (2020). Pertanggungjawaban Pidana Korporasi Perkebunan atas Pencemaran Limbah Kelapa Sawit. *Jurnal Legislasi Indonesia*, 17(2), 225. <https://doi.org/10.54629/JLI.V17I2.615>
- RENCANA PEMBANGUNAN JANGKA MENENGAH NASIONAL TAHUN 2020–2024, (2020) (testimony of PERATURAN PRESIDEN REPUBLIK INDONESIA NOMOR 18 TAHUN 2020).
- Perikanan, K. K. dan. (2022). Dumping. <https://kkp.go.id/djprl/p4k/page/4290-dumping>
- Puspitasari, I., & Devintawati, E. (2018). Urgensi Pengaturan Kejahatan Korporasi dalam Pertanggungjawaban Tindak Pidana Korporasi Menurut RKUHP. *Kanun Jurnal Ilmu Hukum*, 20(2), 237–254. <https://doi.org/10.24815/KANUN.V20I2.10661>
- Rachmawati, L., Ekaputri, A. D., Katherina, L. K., & Santoso, H. (2022). Climate Change Adaptation in Indonesia. 57–75. https://doi.org/10.1007/978-981-16-6088-7_4
- Rahayu, M. I. F. (2009). KEJAHATAN EKONOMI DALAM PENGELOLAAN LIMBAH BAHAN BERBAHAYA DAN BERACUN SERTA PENGARUHNYA TERHADAP PELESTARIAN LINGKUNGAN HIDUP. *Syar Hukum : Jurnal Ilmu Hukum*, 11(2), 113–130. <https://doi.org/10.29313/SH.V11I2.540>
- Ratomi, A., Brigjend, J., Hasan, H., & Banjarmasin, B. (2018). KORPORASI SEBAGAI PELAKU TINDAK PIDANA (SUATU PEMBAHARUAN HUKUM PIDANA DALAM MENGHADAPI ARUS GLOBALISASI DAN INDUSTRI). *Al-Adl : Jurnal Hukum*, 10(1), 1–22. <https://doi.org/10.31602/AL-ADL.V10I1.1150>
- Rötzer, N., & Schmidt, M. (2020). Historical, current, and future energy demand from global copper production and its impact on climate change. *Resources*, 9(4). <https://doi.org/10.3390/RESOURCES9040044>
- Saputra, I., & Yudistira, T. (2021). A CRIME TO THE ENVIRONMENT. *DEGREE ARTICLES MAI WANDEU*, 1(1), 1–8.
- Soekanto, S., & Mamudji, S. (1995). *Penelitian Hukum Normatif*. Raja Grafindo Persada.
- Supriyanta. (2007). RUANG LINGKUP KEJAHATAN EKONOMI. *Jurnal Ekonomi Dan Kewirausahaan*, 7(1), 42–52.
- Ulfa, E. (2019). *International Journal of Multicultural and Multireligious Understanding*. *International Journal of Multicultural and Multireligious Understanding*, 7(34), 282–289.
- Ulfa, M. (2018). Persepsi Masyarakat Nelayan dalam Menghadapi Perubahan Iklim (Ditinjau dalam Aspek Sosial Ekonomi). *Jurnal Pendidikan Geografi*, 23(1), 41–49. <https://doi.org/10.17977/um017v23i12018p041>
- Utama, A. S. (2018). Perusahaan Berdasarkan Undang-Undang Nomor 40. *Jurnal Cendekia Hukum*, 4(1).
- Utami, K. T., & Syafrudin, S. (2018). Pengelolaan Limbah Bahan Berbahaya Dan Beracun (B3) Studi Kasuspt. Holcim Indonesia, Tbk Narogong Plant. *Jurnal Presipitasi : Media Komunikasi Dan Pengembangan Teknik Lingkungan*, 15(2), 127. <https://doi.org/10.14710/presipitasi.v15i2.127-132>