

The Regulation of Renewable Energy in Indonesia Creating Green Investment for Tourism Industry

Lis Julianti

Faculty of Law, Universitas Mahasaraswati Denpasar, Denpasar, Indonesia Kamboja Street, No.11A Dangin Puri Kangin, Denpasar, Bali, Indonesia 80233 <u>lisjulianti@unmas.ac.id</u>

Abdul Kadir Jaelani

Faculty of Law, Universitas Sebelas Maret, Surakarta, Indonesia Ir. Sutami street, No. 36 Kentingan, Jebres, Surakarta, Jawa Tengah, Indonesia 57126 jaelaniabdulkadir@staff.uns.ac.id

Abstract— This study aims to determine the legal policy related to new and renewable energy (EBT) to support sustainable development and create green investment, especially in the tourism sector. The current phenomenon shows that tourism activities are activities that produce significant greenhouse gases, resulting in environmental damage. In addition, the tourism industry also depends on natural resources as its main commodity, so it is necessary to preserve it. The state policy in terms of transitioning to other non-fossil-based (renewable) energy (Energy Transition) will greatly support the tourism program carried out by the region because the air around the tourist environment is clean and healthy. One way to deal with challenges in the tourism industry is to carry out green investments to overcome the negative impacts of environmental damage. This study is a normative legal study using a conceptual approach and a statutory regulatory approach, data analysis is carried out with a literature study that is analyzed qualitatively. The results of this study indicate that the regulations issued by the government related to EBT have not comprehensively accommodated the utilization of EBT, so higher regulations are needed as a legal umbrella that can provide legal certainty. This is due to the legal and economic constraints faced by the government in implementing the policy.

Keywords— Green Investment; Renewable Energy; Tourism Industry; Transition Energy.

I. INTRODUCTION

Energy is a significant driver of economic growth in a country, but conventional energy sources have contributed significantly to climate change and environmental degradation.[1] Dependence on non-renewable fossil fuels has become a global concern, and the move towards renewable energy is becoming increasingly urgent. It is no surprise that energy efficiency is one of the ways to conserve resources. Energy efficiency encompasses efforts to maximize the output from each unit of energy resource used. It involves using more efficient technologies, changes in consumer behavior, and optimizing industrial processes. Energy efficiency implies savings and can increase competitiveness in the global market by reducing production costs.

Indonesia is currently facing challenges related to the implementation of renewable energy, such as climate change and the negative impacts of natural resource exploitation, which need to be addressed in the transformation towards renewable energy.[2] Indonesia is on track to optimize the implementation of renewable energy to support sustainable development and reduce the negative impacts of the global environment and climate.[3] The concept of sustainable development encourages countries to reduce their use of coal and oil through technological innovation, scientific and technological development, and the development of new energy sources. It aims to achieve an organic balance between economic development and environmental protection.

Indonesia has a vital role in improving the world's environment.[4] One effort is to create new economic instruments that aim to reduce risk and provide opportunities for capital flow growth in various sectors.[5] Environmental issues have become a hot topic in the global world today amid concerns about sustainable development and opportunities to accelerate investment. In addition, sustainability addresses environmental issues and includes social and economic aspects to create a harmonious balance.

Green investment is a crucial aspect of sustainable development. It helps to balance economic growth and environmental protection and facilitates the transition to a low-carbon economy. The United Nations Sustainable Development Goals (SDGs) agenda has emphasized eco-investments' importance in reducing environmental pollution.[6] Countries have called for resolving the conflict between economic growth and environmental

© The Author(s) 2024

degradation by focusing on green investments in green industries and technologies. As the government and society pay more attention to the low-carbon economy and environmental protection, companies' strategic decision-making focus has gradually shifted to environmental issues.

One sector that can support sustainable development and green investment is the tourism sector.[7] Tourism is a massive industry and contributes considerably to the country's economic growth, especially in Indonesia. The global tourism industry brings various challenges that must be faced to realize sustainable tourism. In its industrial activities, significant greenhouse gases are produced through various media such as transportation, accommodation, and other activities. The sector's dependence on fossil fuels and contribution to the climate crisis has significant negative sustainability impacts in several places. According to the World Travel & Tourism Council (2021), the travel and tourism sector is responsible for around 11% of global emissions.[8] Transportation is a vital tourism sub-sector and is the primary source of greenhouse gas emissions. Tourism also produces large amounts of waste, including plastic waste, that can damage the local environment. According to The Wall Street Journal, Indonesia ranks second after China regarding marine pollution. As much as 3.20 metric tons of mismanaged plastic waste and 1.29 metric tons of plastic marine debris enter global waters annually. However, to date, it is undeniable that Indonesia still relies on environmentally unfriendly investments. Monetary policies that rely on extractive investments are the leading choice in Indonesia's financial and development approach. One way to address challenges in the tourism industry is to make green investments to address the negative impacts of environmental damage.

The number of foreign tourists visiting Indonesia in August 2022 reached 510,250 thousand visitors, a significant increase of 28.72% compared to August 2021.[9] Foreign tourist visits in August 2022 increased by 6.98% compared to previous months.[10] It shows that Indonesia has high prospects for increasing tourism; Indonesia still has natural beauty that is interesting to visit. Currently, the government is trying to make low-carbon technology an alternative energy source that can create a healthy and clean environment. Low-carbon technology has a positive impact not only on companies but also on the people who live around the environment. The state policy in terms of switching to other non-fossil-based energy (Energy Transition) will significantly support the region's tourism program because the air around the tourist environment is clean and healthy.

One of the countries that has succeeded with its low carbon emission program is China. China's energy strategy is of great significance to realizing the world's low-carbon economy, given its position as the world's second-largest economy, the first industrialized country, and the largest energy consumer.[11] China established its carbon emissions trading market in 2011 and has achieved significant energy conservation and emission reduction success. The State Council of China first proposed the establishment of the Energy Use Rights Trading System in 2015 as part of the Overall Program for Reform of the Ecological Civilization System. The program also called for the implementation of pilot work for energy use rights trading policy (EURT) in Zhejiang, Fujian, Henan, and Sichuan provinces.

Looking at what China has done, the situation in Indonesia is the opposite of the above explanation. Instead of being able to reduce carbon emissions, the amount of carbon emissions has recently increased rapidly due to industrial activities. This development will affect the environment and economic activities in the future. Therefore, every country, including Indonesia, is actively formulating regulations governing "green investment." This term is an investment activity focusing on environmental issues, such as sustainability, climate change, and renewable energy. Concerning this, Law No. 25 of 2007 concerning Investment, as amended by Law No. 11 of 2020 concerning Job Creation, has accommodated this in Article 3(1)(h), where investment must be carried out in an environmentally friendly manner to encourage green investment.[12]

The government has launched Presidential Regulation No. 112 of 2022 concerning the Acceleration of EBT Development for Electricity Supply (Presidential Regulation No. 112 of 2022).[13] It regulates the utilization of renewable energy in terms of price and procurement mechanisms and the energy transition in the electricity sector, which includes a roadmap for accelerating the cessation of PLTU and restrictions on the construction of new power plants. Indonesia, committed to carrying out an energy transition to increase national energy security, has focused on the electricity sector as a target in realizing green investment. Presidential Regulation No. 112 of 2022 is the regulatory basis for Indonesia to carry out activities related to the development of EBT, including EBT power plants, which are considered green investments. This is done to support the sustainable development program based on a green economy.

A green economy is a low—to zero-carbon business activity that is environmentally friendly and globally inclusive. In other words, it is a business activity that considers environmental aspects in pursuing economic growth while maintaining environmental sustainability. One of the products produced by the green economy is green investment, where the investment is directed towards developing environmentally friendly technology and development.

The urgency of this research is to assist the government in formulating new renewable energy policies that guarantee legal certainty, strengthen institutions and governance, and create a comprehensive regulatory framework that can maintain a conducive, fair, and sustainable renewable energy investment ecosystem.

II. LITERATURE REVIEW

A. Renewable Energy

Renewable energy comes from natural sources such as sunlight, wind, rain, geothermal, and biomass. In 2006, about 18% of the world's energy consumption came from renewable energy sources, which is likely to increase steadily over the years. Technology needs to be available to replace energy production from fossil fuels. However, some of the technologies mentioned above are very promising and have the potential to be developed in Indonesia. Some potential and abundant Renewable Energy Resources (RES) in Indonesia include wind, geothermal, hydropower, solar, and biomass (biogas, solid biofuel, and liquid biofuel). (1) Wind. Wind is the most abundant renewable resource in the world. The amount of energy a wind turbine produces depends on its diameter and wind speed. Therefore, wind turbines are mounted on towers that can reach a height of 50 m and are placed along the coast or on hilltops. According to the Directorate General of Electricity and Energy Utilisation (2009), wind energy potential in Indonesia reaches 9290 MW. (2) Geothermal. Geothermal or geothermal is the energy obtained from the earth's heat. The heat from the earth's bowels penetrates and spreads across the face of the earth, but only a few locations where there is enough heat concentrated and economical to exploit. Currently, geothermal energy is one of the most promising energies in the world, including Indonesia, among all existing RES. Data from the Directorate General of Electricity and Energy Utilisation (2009) shows that Indonesia's geothermal potential reaches 27,000 MW. (3) Hydropower. Hydropower is energy derived from water. Sources include river flow, waterfalls, and tides. Hydropower is a renewable energy source (RES) that is widely available in Indonesia. According to the Directorate General of Electricity and Energy Utilisation (2009), Indonesia's hydropower potential reaches 4.99 x 1018 J/year. (4) Solar energy. Solar energy is energy generated from the sun through solar radiation. Technologies used to utilize solar energy include photovoltaic, solar thermal, solar collectors, and solar thermal power. With an effective land area, which is land that can harness solar energy, reaching 1.7% of Indonesia's total land area, the potential for solar energy in Indonesia is very large, reaching 4.80 kWh/m²/day (Directorate General of Electricity and Energy Utilisation, 2009). (5) Bioenergy from biomass as an environmentally friendly RES. Bioenergy from biomass is one of the most recognized forms of renewable energy. Due to its close association with environmental issues such as global warming, CO_2 gas emissions, green energy labeling, and so on, bioenergy has received a lot of attention from the political arena, media, researchers, and engineers. Bioenergy is basically energy produced from biomass. Bioenergy includes biogas, liquid biofuel, and solid biofuel. Indonesia's terrestrial biomass potential is estimated to be in the order of 1018 J/year.

B. Tourism Industry

Tourism is a social, cultural, and economic phenomenon involving the movement of people to a country or place outside their usual environment for personal or business/professional purposes. Tourism, one of the fastestgrowing industries globally, not only earns a major share of foreign exchange but also provides significant employment opportunities in many countries. Its economic and social impact is truly remarkable.

The term 'tour' has its origins in the Latin word tornus, which means 'a tool for making a circle'. This etymology provides a fascinating insight into the concept of tourism, which can be defined as the movement of people from their usual place of residence to another location (with the intention of returning) for a period of at least twenty-four hours and up to a maximum of six months, solely for the purpose of recreation and pleasure.

According to WTO (1993), "Tourism comprises the activities of persons traveling to and staying in places outside their usual environment for not more than one consecutive year for leisure, business and other purposes." The Rome Conference on Tourism in 1963 defined tourism as a visit to a country other than that in which a person resides typically and works. However, this definition does not consider domestic tourism, which has become a vital income and employment earner for the hospitality industry.

C. Green Investment

Currently, green investment is an exciting topic of discussion entering 2024. Quoting Marketeers, the Indonesia Stock Exchange (IDX) encourages all issuers to implement the principles of Environmental Social Governance (ESG) or sustainable business governance. In addition to business investment, companies must pay attention to environmental and social sustainability for future generations. Green investment, often called Green

Investment, is a form of investment carried out by paying attention to environmental impacts and sustainability. In this context, the primary purpose of this investment is not only to seek financial gain but also to contribute positively to the environment and society. Green investment aims to support environmentally friendly and sustainable projects. Green investment is becoming increasingly important as awareness of climate change and the need to reduce the negative impacts of human activities on the environmental protection efforts. Benefits of Green Investment:

- 1. Portfolio Diversification. Green investment provides portfolio diversification options, reducing investment risk by spreading assets across various sustainable sectors.
- 2. Regulatory Compliance. As governments increasingly focus on environmental issues, green investment can help companies stay compliant with regulations related to sustainability.
- 3. Corporate Reputation. Green investment can improve a company's reputation among consumers, investors, and business partners increasingly concerned about social and environmental responsibility.

Green investment is not just about gaining financial returns but also about positively impacting the environment and society as a whole. By making green investments, we can contribute to the efforts to maintain the sustainability of our earth for future generations. This long-term view is crucial, as it is not just about the here and now, but about the legacy we leave for those who come after us.

III. METHOD

The research method used in this research is Normative Juridical, a legal research method that is carried out by examining library materials or secondary materials only. The types of approaches used in this research are the statute approach and the conceptual approach.[14] The data analysis method is carried out by collecting facts which are data through reviewing library materials or secondary data which include primary legal materials, secondary legal materials, and tertiary legal materials, both in the form of documents and applicable laws and regulations related to normative legal analysis of the problems that arise. The research method used in this study is the Normative Juridical method, based on a review of library materials and secondary data. This study uses a legislation-regulation approach and a context approach. The regulation-regulation approach analyzes applicable legal regulations and policies, while the conceptual approach focuses on understanding the underlying legal principles and theories related to renewable energy and green investment. Data collected from primary, secondary, and tertiary legal sources, including Government Regulation No. 79 of 2014 concerning National Energy Policy (KEN), Presidential Regulation No. 22 of 2017 concerning the National Energy General Plan (RUEN), Law No. 25 of 2007 concerning investment, and Presidential Regulation No. 112 of 2022. These regulations are analyzed to identify inconsistencies, such as the emphasis on coal in the energy mix, and to explore the legal and economic challenges in implementing renewable energy policies and green investment strategies in Indonesia.

IV. RESULT AND DISCUSSION

A. Renewable Energy and Green Investment: Definition and Scope

Based on data from the Statistical Review of World Energy 2018 issued by BP (British Petroleum) in 2017, Indonesia is the country with the largest energy consumption in the Southeast Asia region and is ranked fifth in the Asia Pacific in primary energy consumption (175.2 million tons oil equivalent) after China, India, Japan and South Korea[15]. Based on data from the Energy and Economic Statistics of Indonesia in 2018 issued by the Ministry of Energy and Mineral Resources, Indonesia's final energy consumption is dominated by consumption of fuel oil (35.31%), electricity (11.08%), and other products from petroleum (10.36%). Specifically speaking about the electricity sector, so far the Government through PT PLN (Persero) has attempted to meet electricity needs by relying on power plants operated using coal (60.27%) and natural gas (27.60%).

The Indonesian government has attempted to formulate a National Energy Policy (KEN) in PP No. 79 of 2014 to address problems in the energy sector, which was then formulated in detail in the National Energy General Plan (RUEN) stipulated based on Presidential Decree No. 22 of 2017. KEN sets out priorities for national energy development based on the principles[16]: 1) maximizing renewable energy by considering the economic level; 2) minimizing the use of petroleum; 3) optimizing the use of natural gas and new energy; and 4) using coal as the mainstay of national energy supply. The four principles in the priority of national energy development are arranged to achieve the optimal primary energy mix target as follows:

- 1. The role of New and Renewable Energy (EBT) in 2025 is at least 23% and at least 31% in 2030 as long as its economics are met;
- 2. The role of petroleum will be less than 25% in 2025 and become less than 20% in 2050;
- 3. The role of coal is at least 30% in 2025 and at least 25% in 2050;

4. The role of natural gas is at least 22% in 2025 and at least 24% in 2050.

Efforts to support the achievement of the primary energy mix target are carried out by encouraging diversification of power generation energy sources based on new and renewable energy (EBT) commonly referred to as green energy/clean energy. EBT is a type of energy that can continue to be provided by nature. The types of energy sources included in the EBT group include water energy, geothermal, wind, solar, biomass, organic waste, wind energy, and ocean energy. These sources are then processed to produce energy in various forms, especially electricity, heat, chemicals, or mechanical power.

The use of renewable energy sources in power plants is based on the availability of unlimited energy sources or running out in a relatively longer time compared to non-renewable energy such as fossil fuels. In addition, the amount of waste produced by renewable energy is very small or even non-existent, thus supporting Indonesia's commitment to reducing global emissions. In its implementation, the Government faces limitations both in terms of budget and technology in the use of renewable energy as the basis for power plants in Indonesia. One step that can be taken is to encourage foreign investment in the use of renewable energy. Foreign investment or Foreign Direct Investment (FDI) is an important source of financing for developing countries. FDI influences supporting economic growth in a country.

The utilization of renewable energy sources in Indonesia will attract investors to make green investments. Green investment is defined as an investment that is responsible for activities that support good environmental development. Activities The activities referred to here are company activities that directly or indirectly affect the use, impact, or even exploitation of the surrounding environment. This type of investment is focused on replacing environmentally damaging activities carried out by companies with environmentally friendly activities. This can also be done through the production of products that support environmental improvement or through projects to repair the environment damaged by large-scale exploitation. From these statements, it can be said that green investment is intended to maintain current environmental conditions, repair damaged environments, and support the transition of industry to new and renewable practices that are environmentally friendly [17].

Law No. 25 of 2007 concerning Investment does not explicitly define green investment. This law only defines "investment" for every investment activity carried out in Indonesia, both foreign and domestic investment. However, several articles in this law provide obligations for investors to carry out responsible investments and pay attention to environmental sustainability. This confirms that Indonesia has a concern for environmentally conscious investment.

Green investment is a complex economic activity that combines factors such as the economy, society, and the environment, enabling businesses to pursue economic gains while fulfilling environmental responsibilities[18]. However, achieving a balance between environmental protection and economic benefits is challenging. Varying starting points in green development across nations, coupled with disparities in policy-making and technological capacities, present challenges for developing countries. Moreover, the high costs and long payback periods associated with green investments introduce substantial risk in the long run[19].

Currently, the Indonesian Government has enacted Presidential Regulation No. 112 of 2022, there are three main objectives stated in this Presidential Regulation, namely increasing investment in the renewable energy sector, accelerating the achievement of renewable energy under national energy policies and transitions, and reducing greenhouse emissions. This is in line with the expected objectives of green investment. Regarding green investment under the presidential decree, there are two possible investment schemes. Namely Government Investment and Public Investment. Government Investment comes from the government, while Public Investment comes from the community, which concerns the energy sector.

Green investment is practically considered an expenditure made by an organization or company to have a positive impact on the environment. Many companies set aside a portion of their profits to be invested in environmentally friendly practices such as environmental monitoring, waste management, renewable energy, and environmentally friendly technologies where green investment is one of the company's motivations in facing competition from competitors who have already implemented green actions to reduce CO2 emissions and maintain a healthy environment[20].

B. Legal Instruments for Renewable Energy in Creating Green Investment in the Tourism Sector

To help realize the real action of the Paris Agreement commitment, the Institute of Essential Services Reform (IESR) announced that Indonesia will carry out deep decarbonization of its energy system. It is hoped that by carrying out deep decarbonization, Indonesia can reduce carbon dioxide emissions by 0% by 2050[21]. Clean carbon dioxide emissions certainly support climate crisis mitigation such as extreme weather (in the long term) and also provide positive contributions from the environmental, health, and welfare perspectives. and the economy. The increasing awareness of global issues in the sustainable development goals (SDGs) agenda launched by the UN has triggered the emergence of the term green investment in the economic sector, especially in the financial aspect. The term refers to capital activities aimed at projects that address global issues such as energy conservation, climate change, and even social issues[22].

Tourism is often associated with negative effects on the environment. The arrival of tourists can significantly affect the places visited. Any form of consumption behavior of various types of resources in tourist attractions always has an impact. Green Investment can play an important role in reducing the environmental impacts generated by the tourism sector. By channeling financial injections into sustainable practices, infrastructure

improvements, and technology, this investment can encourage positive transformation and practices that pay more attention to ecological aspects in the tourism sector. Therefore, the implementation of green investment can support the development of sustainable tourism practices so that it can reduce negative impacts on the environment.

Waste and pollution are also outcomes of tourism. Tourism produces large volumes of waste, including plastic pollution, which can be detrimental to the local environment, marine ecosystem, and natural landscape. Inadequate waste management and waste disposal infrastructure further exacerbate the problem. According to The Wall Street Journal, Indonesia ranks second after China in marine pollution. An estimated 3.20 metric tons of mismanaged plastic waste and 1.29 metric tons of plastic marine debris enter global waters each year. Coastal tourism also contributes to the pressures placed on the environment. It directly contributes to marine pollution while also relying on the ocean as a tourist attraction.

This commitment to energy transition not only brings environmental awareness in Indonesia but also the awareness that the energy transition from fossil-based energy to new and renewable energy requires sophisticated technology and is not cheap. This is one of the drivers for the formulation of not only regulations on new and renewable energy but also the investment policies that accompany it. The peak is the existence of the Draft Law on New and Renewable Energy, which will later become the legal umbrella for the legal framework not only for the exploitation of new and renewable energy but also as a basis for the formulation of green investment policies in Indonesia[23].

Based on the above explanation, there are several obstacles faced in implementing the use of new and renewable energy in Indonesia, including:

1. Legal Problem

First, Law No. 30 of 2007 concerning Energy Article 2 in conjunction with Article 8 paragraph (1) stipulates that national energy management must be based on environmentally friendly technology by considering benefits, sustainability, and environmental preservation. To support the mandate in this law, the government issued Government Regulation No. 79 of 2014 concerning the National Energy Policy, where this national energy policy is intended to manage energy based on the principles of justice, sustainability, and environmental insight to realize energy independence and national energy resilience. Article 9 paragraph (1) stipulates that in 2025, the role of New Energy and Renewable Energy will be at least 23% and in 2050 at least 31% as long as its economics are met.

If we look at the provisions of Article 11 paragraph (2) of the Government Regulation which regulates the realization of an energy economic balance, the priority of national energy development is based on the principle of maximizing the use of renewable energy. Water, geothermal energy, water movement energy, and differences in sea layer temperatures, wind energy, and solar energy are directed to electrical energy. However, in this government regulation, there is an inconsistency, where Article 11(2)(d) stipulates that to realize an energy development. So in its implementation, it experiences difficulties because there is no legal certainty.

2. Economical Problem

The utilization of new and renewable energy in Indonesia not only requires large costs but also adequate technology. Concerning this, the Government is opening up opportunities for investment in the new and renewable energy sector, in addition, the Government is also drafting a law on new and renewable energy which can later become a legal umbrella so that there is no exploitation of natural resources. This is also the basis for the Government in formulating investment policies in Indonesia[24].

From an investor's perspective, based on dominant theory, foreign investors when investing consider two main things, namely certainty and efficiency. Certainty is a component related to a country's legal policy, in this case directly related to the rules of renewable energy law. The key to certainty here is a stable and unchanging policy so that the policy is enacted while still considering the expectations of investors. Legitimate investors and still paying attention to investor expectations. Stable and transparent policies to ensure certainty are needed, considering that foreign investment and exploitation of renewable energy can often be hampered by the social conditions of the community. Lack of awareness and involvement of stakeholders and local communities due to non-transparent information will lead to rejection, and this often happens in Southeast Asian countries, one of which is Indonesia[25].

Based on the above explanation regarding the obstacles faced in implementing the use of renewable energy in Indonesia, it is necessary to have a Law related to Renewable Energy which will be the legal umbrella in its implementation in the future, in addition, it will also encourage the Government in making policies related to green investment to support sustainable development programs. In addition, the formation of this renewable energy law is also to fulfill the Government's commitment to the Paris Agreement at the UN Framework Convention on Climate Change to reduce greenhouse emissions by 29% by 2030 and to maintain national energy resilience and independence. This requires a synergistic commitment between the government and the legislature to accelerate the legislative process of the draft renewable energy law and its derivatives so that it can provide legal certainty.

V.CONCLUSION

Since the increase in carbon emissions in Indonesia, the government has begun to commit to reducing carbon emissions. One of the sectors that contributes to carbon emissions and produces greenhouse gases is the tourism sector. This sector also relies on its activities on the existence of natural resources to attract tourists to come to Indonesia. One step to overcome the negative impacts of tourism activities that cause environmental damage is

through green investment. It is also to implement the mandate of the Investment Law that investment must be made by considering environmental sustainability. Indonesia has also committed to carrying out an energy transition that will be achieved in 2025, so the government issued Presidential Regulation No. 112 of 2022 concerning the Acceleration of EBT Development for the Provision of Electricity and encouraging the community to make green investments in the electricity sector or tourism sector. In its implementation, the energy transition policy to realize green investment in Indonesia still experiences various obstacles, namely the existence of legal inconsistencies related to the utilization of renewable energy and policies on green investment, as well as economic obstacles related to limited budget and technology in implementing this energy transition. So, there needs to be a draft law related to renewable energy and its derivative regulations, including green investment policies to maintain energy stability and realize environmental preservation for sustainable development.

REFERENCES

- [1] R. Nugraha, Green Economy (Teori, Konsep, Gagasan Penerapan Ekonomi Hijau Berbagai Bidang di Masa Depan). Jambi: PT. Sonpedia Publishing Indonesia, 2024.
- [2] M. Liu and Y. Zhang, "Thinking about green investment in coal enterprises under low- carbon economy," *Accountant*, pp. 1–03, 2022, doi: https://doi.org/10.3969/j.issn.1672-6723.2022.18.002.
- [3] "Pemerintah Sambut Investasi Asing ke Sektor Ekonomi Hijau."
- [4] R. Sheng, R. Zhou, Y. Zhang, and Z. Wang, "Green Investment Changes in China: A Shift-Share Analysis," *Int. J. Environ. Res. Pub Heal.*, vol. 18, no. 12, p. 6658, 2021, doi: https://doi.org/10.3390%2Fijerph18126658.
- [5] H. Zhang, Q. Liu, D. Lu, X. Wang, and H. Fan, "Sustainable development perspective of linking natural resources and human capital development: An overview of resources utilization," *Resour. Policy*, vol. 86, p. 104097, 2023, doi: https://doi.org/10.1016/j.resourpol.2023.104097.
- [6] J. D. Sachs, W. T. Woo, N. Yoshino, and F. Taghizadeh-Hesary, "Importance of Green Finance for Achieving Sustainable Development Goals and Energy Security," in *Handbook of Green Finance*, J. D. Sachs, W. T. Woo, N. Yoshino, and F. Taghizadeh-Hesary, Eds., Singapore: Springer, Singapore, 2019, pp. 3–12. doi: https://doi.org/10.1007/978-981-13-0227-5 13.
- [7] B. R. Marshall, H. T. Nguyen, N. H. Nguyen, N. Visaltanachot, and M. Young, "Do climate risks matter for green investment?," *J. Int. Financ. Mark. Institutions Money*, vol. 75, 2021, doi: https://doi.org/10.1016/j.intfin.2021.101438.
- [8] M. S. Hadi, "Green Investment dan Tantangan Keberlanjutan dalam Pariwisata," https://wisestepsconsulting.id/.
- [9] B. Sembiring, *Tinjauan Lingkungan Hidup 2020: Menabur Investasi dan Menuai Krisis Multidimensi: Wahana Lingkungan Hidup Indonesia*. Jakarta: Eksekutif Nasional WALHI, 2020.
- [10] Journal of Indonesian Tourism and Policy Studies, "No Title."
- [11] Q. Zhang, Y. Zheng, and D. M. Kong, "Local Environmental Government Pressure, Executive'sworking Experience And Enterprise Investment In Environmental Protection: A Quasi-Natural Experiment Based On China's Ambient Air Quality Standars 2012," *Econ.Res*, vol. 54, pp. 183–198, 2019.
- [12] Rezaldy and K. Kesumadiksa, "The Implementation of Green Investment Under Presidential Decree Number 112 Year 2022," *J. Interdiscip. Law Leg.*, vol. 1, no. 1, 2023, doi: https://journal.ugm.ac.id/v3/JILI/article/view/7760.
- [13] "No Title." University of Muhammadiyah Malang.
- [14] P. M. Marzuki, "Penelitian Hukum," 2013.
- [15] BP, "BP Statistical Review of World Energy June 2018," 2018.
- [16] M. A. A. Mutia, "Evaluasi Kebijakan Indonesia: Peningkatan Investasi Asing di Sektor Kelistrikan Berbasis Green Energy," OISAA J. Indones. Emas, vol. 2, no. 1, pp. 32–38, 2019.
- [17] M. V. A. Suryono, S. Widiasti, and E. Rachmawati, *Menuju Green Economy Melalui Green Investment Sektor Energi Terbarukan UMKM*. Forbil Institute, 2022.
- [18] Y. Chen, L. Cheng, C.-C. Lee, and C. Wang, "The Impact Of Regional Bank On Environmental Pollution: Evidence From China's City Commercial Bank," *Energy Econ.*, vol. 102, 2021, doi: https://doi.org/10.1016/j.eneco.2021.105492.
- [19] G. Du and W. Li, "Does Innovative City Building Promote Green Logistics Efficiency? Evidence From Quasi-Natural Experiment With 285 Cities," *Energy Econ.*, vol. 114, 2022, doi: https://doi.org/10.1016/j.eneco.2022.106320.
- [20] V. M. Hieu, "Influence of Green Investment, Environmental Tax and Sustainable Environment: Evidence from ASEAN Countries," Int. J. Energy Econ. Policy, vol. 12, no. 3, pp. 227–235, 2022, doi: https://doi.org/10.32479/ijeep.13028.
- [21] Istiadi, "Energy Transition and Tourism Prospects in Indonesia," J. Indones. Tour. Policy Stud., vol. 7, no. 2, 2022, doi: 10.7454/jitps.v7i2.1090.

- [22] S. L. Natswa, "Studi Literasi: Telaah Risiko Green Investment dan Utilitasnya Terhadap SDGs 2030 Melalui Green Bonds," in *Prosiding Seminar Nasional Riset Pasar Modal*, Malang: FEB Universitas Negeri Malang, 2021.
- [23] C. A. Horowitz, "Paris Agreement," Int. Leg. Mater., vol. 55, no. 4, pp. 740–755, 2016, doi: https://doi.org/10.1017/S0020782900004253.
- [24] P. Paryono, "Supervisi Edukatif Kolaboratif Secara Periodik Meningkatkan Kinerja Guru," J. Ilm. Pendidik. Profesi Guru, 2020.
- [25] T. T. T. Tran, H. N. Do, T. H. Vu, and N. N. M. Do, "The Factors Affecting Green Investment for Sustainable Development," *Decis. Sci. Lett.*, vol. 9, pp. 365–386, 2020.

Open Access This chapter is licensed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (http://creativecommons.org/licenses/by-nc/4.0/), which permits any noncommercial use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

