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Environmental Policies for Sustainable Economic Growth Achievement in Indonesia and Negara Brunei Darussalam

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***Abstract*—The global commitment to achieving the 2030 Sustainable Development Goals (SDGs) has become a concern for all countries in the world, including Muslim Southeast Asian countries. The eighth goal of the SDGs is to promote sustainable and inclusive economic growth, full and productive employment, and decent work for all. This study aims to determine environmental policies in sustainable economic growth in Indonesia and Negara Brunei Darussalam. This study uses an integrative literature review. This research shows that the role of environmental policy in Indonesia and Negara Brunei Darussalam is quite good in managing the provision and use of environmental resources in a way that supports increasing prosperity and welfare, for present and future generations.**

Keywords—environmental policies, sustainable economic growth, sustainable development goals

I. Introduction

The implementation of sustainable development principles, which has become increasingly stable at the global level, has become clearer and more focused with the establishment of the Sustainable Development Goals (SDGs) in 2016. The establishment of these SDGs is an attempt by countries to implement the principles of sustainable development. This implementation is carried out with the 2030 Agenda for Sustainable Development, which is a roadmap for ensuring sustainable social and economic growth and development worldwide [1].

The 2030 Agenda is not only to tackle poverty but also to integrate and balance the three pillars of sustainable development in a comprehensive global vision. The three pillars of sustainable development are environmental conservation, social/community development, and economic growth. The 2030 Agenda is a plan that can continue to change but remains based on 17 sustainable development goals. All countries are struggling with the SDGs addressing their specific challenges.

Economic growth is a beacon of hope for the third world to overcome poverty, unemployment, inequality, and socio-economic backwardness [2]. Economic growth occurs when real output grows over time. Real output is measured by Gross Domestic Product (GDP) at constant prices which shows the added value of these goods and services which is calculated using prices prevailing in one particular year as a basis [3]. Periods of growth are often triggered by increases in aggregate demand, such as household income and wealth, fiscal policy, monetary policy, exchange rates, global economic growth, business confidence, consumer confidence, input prices, business taxes and subsidies, and technology.

Economic growth shows an increase in production and service capacity within a certain period based on several indicators such as an increase in national income, per capita income, the number of workers who are greater than the number of unemployed, as well as a reduction in the poverty rate. Economic growth can also be interpreted as a process of continuous change towards better conditions in the economic conditions of a country. By knowing the level of economic growth, the government can then make plans regarding state revenues and future development. Meanwhile, for business sector players, the level of economic growth can be used as a basis for making product development plans and resources.

Sustainable economic growth is a rate of growth that continues over time and does not jeopardize the ability of future generations to expand their productive capacity. Since productive capacity depends on the availability and quality of factors of production (including natural resources), sustainability also means ensuring the availability of these factors for future generations [4,5]. Rapid growth can drain resources and create environmental problems for future generations, thus becoming a trade-off between economic growth and environmental conservation efforts [6]. Growth that does not pay attention to these two aspects will lead to problems in the future. In summary, economic growth which solely refers to an advantage without considering the sustainability of nature and the environment will not have a negative impact on nature only but on humans as well.

Recognizing the need for environmental management to preserve the ability of a harmonious and balanced environment to support sustainable economic growth, it is necessary to increase the utilization of the potential of natural resources and the environment by changing, rehabilitating, and saving utilization by applying environmentally friendly technology, as well as utilizing natural resources. The utilization of natural resources is carried out by considering the preservation of the function and balance of the environment, sustainable development, economic and cultural interests, as well as spatial planning whose utilization is regulated by laws and policies.

II. METHODS

This study uses an integrative literature review to review a knowledge base whose writing presents and summarizes the current state of knowledge on a topic, highlights the agreements and disagreements within it, and broadens the theoretical foundation of a particular topic as it develops [7]. An integrative literature review can provide a comprehensive background for understanding current knowledge and highlight the importance of new research.

The nature of this research is descriptive, that is, the author intends to systematically describe environmental policies in the context of sustainable economic growth. Furthermore, it is analyzed qualitatively by describing it clearly, then comparing environmental policies in Indonesia and Brunei Darussalam. Conclusions are drawn deductively, namely drawing conclusions from things that are general to things that are specific [8].

III. RESULTS AND DISCUSSION

A. Environmental Policies

From the perspective of neoclassical economics, environmental problems arise because of market failures. The root of the problem is the absence of ownership rights or poorly defined property rights [9-11]. A well-defined property right is a set of rights that describing the privileges and obligations of the owner in the context of resource use has the following general characteristics: (1) universality comprehensively determined, (2) exclusive, (3) transferable, and (4) enforceability [12].

Externalities are a special case of imperfect markets for environmental assets. When certain individual consumption or production activities affect a person's utility or the production function of a company, the Pareto optimal condition will not occur and what will happen is an externality [13,14]. Thus, the effect of an externality is not reflected in the final cost or benefit of the goods or services produced, but rather in its impact on utility or profit. The costs of externalities harm other people or the environment. It can take forms such as radiation, river or air pollution, or noise. The local community must suffer and there is no compensation for it.

Environmental assets are pure public goods if the consumption is non-rivalry and non-excludable [15]. Pure public goods are available to all, and individual consumption does not reduce the consumption of other individuals. Non-rivalry goods are goods for which the benefits can be provided to additional users at zero marginal cost, therefore there is no Pareto efficiency. Non-rivalry implies that if the public interest is granted, consumers cannot be excluded from consumption. Every member of society cannot be restricted/prohibited from consuming public goods or activities such restrictions are very difficult to carry out. The consumption of a public good by one consumer does not reduce the amount available for consumption by the other.

Incomplete market conditions, externalities, non-exclusion and common property, non-competition, and public goods are all closely linked to property rights issues. Rights is the capacity to allow certain parties to be behind one's acknowledgment of the flow of benefits characterized not as a relationship between a person and an object, but a relationship between people associated with an object [16]. While ownership is the flow of benefits. Thus, property rights are a triune social relationship, namely the relationship between individuals who have rights, other parties who must refrain from intervening with rights holders, institutions to support recognition.

There are four types of property rights (property rights regime) namely for individuals, countries, groups, and no one, so there is private property, public property, state property, and open access property [17,18]. Even if there is private ownership, its implementation is still limited by laws, regulations, and social rules. The four types can be operationalized to determine the impact on the use of natural resources, through the link between property rights and economic behavior, namely transaction costs and externalities. Ownership rights can reduce transaction costs, making it easier to deal with externalities. Property rights can facilitate cooperation to internalize externalities, so that the distribution of ownership rights determines who bears the costs of cooperation. The closer the interests of rights holders to social interests, the more efficient the structure of ownership rights will be.

Natural resource management tends to be sustainable when local communities actively participate in their management, as indicated for forest management [19-21]. As a result, non-governmental organizations (NGOs) including the government are seeking to develop collaborative resource management programs that facilitate local community participation not only in recognizing use rights but including in decisions regarding their management objectives and practices [22].

Based on the institutionalist approach, it means that the solution to the problem of environmental degradation is give rights to polluters or to pollution victims. If ownership rights exist and transaction costs are low, transactions between individuals will be efficient (optimal pollution is achieved) [23]. In other words, with ownership rights and low transaction costs, there will be no externalities because all costs and benefits will be calculated by the party conducting the transaction. However, there are situations where ownership rights cannot be granted. In such cases the government is forced to develop other alternatives such as emission levies, tradable permits, or taxes.

Market failure in allocating resources efficiently, encourages government intervention [24]. A third-party intermediary, type of government is urgently needed to correct market failures and strike an efficient balance. Likewise, in dealing with environmental problems, especially those related to natural resources that are open access, there needs to be a policy that will limit access or be responsible for activities that have an impact on the occurrence of pollution [25,26].

In the environmental economics literature, there are several types of policies that can be chosen to respond to problems, namely decentralized policies such as liability law, property rights, and moral justice, command, and control such as emission standards, liquid waste quality standards and types of incentives, namely taxes and subsidies.

Liability law is a liability law that underlies the mechanism for solving environmental problems between the producer (polluter) and the suffering party (sufferer) [27]. Polluters are required to pay compensation to parties who are negatively affected by their activities, while those who suffer receive compensation [28]. This type of policy is classified as a decentralized type of policy because it is submitted directly to related parties, meaning that the government does not participate in regulating and determining.

Another type of policy that is included in the decentralized policy is property rights, which gives full rights to an institution to own and manage the environment in a certain area [29]. The type of command and control, namely regulating and supervising, is a policy that is fully handled by the government [30], meaning that the government designs starting from setting standards, evaluating them to monitoring them.

B. Indonesia Case

The Indonesian government’s commitment to implementing sustainable development is specifically regulated in the National Medium-Term Development Plan (Rencana Pembangunan Jangka Menengah Nasional/RPJMN) for 2020-2024. Sustainable development has been established as one aspect of mainstreaming that aims to provide access to equitable and inclusive development, as well as protect the environment. In realizing sustainable development, the Government has set a policy direction through Low Carbon Development. These efforts are carried out through emission reduction and intensity in priority areas including energy, land, waste, industry, and marine affairs.

There are five priority sectors in implementing a sustainable economy or circular economy. The five selected sectors are: (1) food and beverage, (2) textiles, (3) construction, (4) retail which focuses on plastic packaging, and (5) electronics. This economic model maintains the maximum possible value of products, raw materials, and resources.

Through regulations on: (1) Law 11/2020 on Job Creation, (2) Law 32/2009 on Environmental Protection and Management, (3) Law 41/1999 on Forestry, and (4) Law 18/2013 on Prevention and For the Eradication of Forest Destruction, the Indonesian government aims to create an easy business ecosystem, without compromising the standards, values of safety, security, and environmental sustainability.

The Indonesian government also encourages the implementation of a green economy designed to increase Gross Domestic Product (GDP) and focuses on environmental protection. Everything pivots on a development paradigm that makes economic growth, environmental protection, and social resilience the implementation of development. The green economy also plays a role in strengthening collaboration between national and international entrepreneurs, politicians, policy makers, regional heads, and civil society groups, so that green capital can flow.

The concept of green economy and green growth emerged as an integrated and comprehensive movement to create equitable welfare or social justice, at the same time, able to preserve the environment and natural resources in the context of sustainable development. The green economy is also able to create a climate of innovation while at the same time improving the health and quality of life of the community, as well as creating opportunities to improve overall social welfare [31].

The Indonesian government makes innovation policies to support economic growth, emphasizing on the third National Development Agenda, namely Improving Quality and Competitive Human Resources by increasing quality and competitive human resources, which is focused on the fulfillment of basic services [32]. The policy was made to strengthen the implementation of social protection, improve the quality of children, women, and youth, alleviate poverty, increase productivity and competitiveness of human resources, and control population growth.

C. Brunei Darussalam Case

Brunei Darussalam's economy is dominated by the Sultan's policies which are based on Islamic teachings. Every economic policy made aims to maintain the stability of the Brunei Darussalam economy. Economic policies also apply the principles of the SDGs, through job creation, improvement of living standards, and collaboration between global communities [33].

Brunei Darussalam's Gross Domestic Product (GDP) is still dominated by the oil and gas sector. The oil and gas industry also leaves several types of problems including contaminated soil, production waste and operating waste [34].

Brunei Darussalam is committed to realizing sustainable economic development that is tolerant and harmonious, uses natural resources that are in harmony and balance with environmental functions, as well as improving the welfare of the nation. Efforts are being made to expand the field of business development including foreign direct investment companies and Micro, Small, Medium Enterprises (MSMEs). The priority non-oil and gas economic sectors strengthened by Brunei Darussalam are: (1) downstream oil and gas, (2) food, (3) tourism, (4) info-communication and technology (ICT), (5) and services.

The strategies made by Brunei Darussalam to increase the contribution of the non-oil and gas sector include: 1) strengthening priority sectors for economic development and diversification, 2) growing sustainable business activities, 3) expanding the non-oil and gas export base for economic diversification, 4) promoting and assisting the internationalization of local businesses, 5) utilizing technology and innovation to create high value-added activities, 6) increasing productive and internationally competitive businesses, and 7) creating job opportunities that are driven from various business activities that lead to a more productive and competitive workforce [35].

Brunei Darussalam actively promotes tourism, agriculture, plantations, and fisheries through the ecotourism format. The use of modern technology and techniques in every sector is also carried out as an effort to increase productivity and international competition.

To implement the sustainable development of Brunei Darussalam, which is environmentally sound, it requires commitment from various parties, especially the government. Sustainable environmental management and protection policies are assigned to the Department of Environment, Parks and Recreation (JASTRe) to carry out synergistic coordination and control the use and/or exploitation of natural resources, mining, tourism, and other activities wisely. Brunei Darussalam also enforces laws relating to environmental management and protection, namely the Environmental Protection and Management Order (EPMO) 2016 and the Hazardous Waste (Control of Export, Import and Transit) Order (HWO) 2013.

To achieve sustainable environmental management, JASTRe developed a Solid Waste Management Strategy through the following: (1) waste minimization through 3Rs, (2) provision of sustainable waste collection and management technology, (3) youth empowerment in various environmental activities, and (4) law enforcement for those who litter and do not comply with the rules.

In addition to environmental management, JASTRe also targets air quality improvement through the following actions: (1) prevention and mitigation of air quality according to the EIA, (2) enforcement of regulations against illegal activities that pollute air quality, and (3) handling of air pollution originating from vehicle emissions. Through cooperation with ASEAN partners, Brunei Darussalam coordinates the handling of haze pollution on the environment, land, forest fires and transboundary haze routes.

IV. Conclusion

This study concludes that both Indonesia and Brunei Darussalam need various policies to achieve sustainable economic growth, one of which is environmental policy. The environmental policy is formulated to improve people's welfare, comfort and maintained environmental conditions.

In developing and growing the economy in various sectors, environmental considerations must be considered. The concept of greening the economy and business can be a solution to help Indonesia and Brunei Darussalam in overcoming increasingly serious and complex social and environmental crises. The greening of the economy will also make economic growth and corporate profits more qualified and grow sustainably. The two countries will also grow into developed, prosperous, dignified, and sustainable countries, because they are supported by three strong basic pillars and in close synergy with each other, namely the environment, society and economy.

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References

[1] United Nations, Transforming Our World: The 2030 Agenda for Sustainable Development, A/RES/70/1.

[2] J. Haughton and S.R. Khandker, Handbook on Poverty and Inequality. Washington, DC: The World Bank, 2009.

[3] K. Dynan and L. Sheiner, “GDP as a measure of economic well-being,” Hutchins Center Working Paper, vol. 43, pp. 1-53, 2018.

[4] Global Green Growth Institute, Green Growth Concepts and Definitions Working Paper, 2014.

[5] T. Everett, M. Ishwaran, G.P. Ansaloni, and A. Rubin, Economic Growth and the Environment. Department for Environment Food and Rural Affairs, 2010, pp. 1-52.

[6] S. Drews and J.C.J.M. van der. Bergh, “Scientists’ views on economic growth versus the environment: a questionnaire survey among economists and non-economists,” Global Environmental Change, vol. 46, pp. 88–103, 2017.

[7] H. Snyder, “Literature review as a research methodology: An overview and guidelines,” Journal of Business Research, vol. 104, pp. 333-339, 2019.

[8] S.M. Soerjono Soekanto, Penelitian Hukum Normatif, Suatu Tinjauan Singkat. Jakarta: PT Raja Grafindo Persada, 2003.

[9] M. Taggart, Private Property and Abuse of Rights in Victorian England: The Story of Edward Pickles and the Bradford Water Supply. New York: Oxford University Press Inc., 2002, pp. 75-105.

[10] N. Hanley, J.F. Shogren, and B. White, Environmental Economics in Theory and Practice. London: MacMillan, 1997.

[11] B. Callan, “Generating spin-offs: evidence from across the OECD,” Science Technology Industry, vol. 26, pp. 13-56, 2000.

[12] T.H. Tietenberg and L. Lewis, Environmental and Natural Resource Economics. 11th ed Routledge, 2018.

[13] D.J. Boudreaux and R. Meiners, “Externality: origins and classifications,” Natural Resources Journal, vol. 59, pp. 1-34, 2019.

[14] E.C. Smith and S.K. Swallow, ”Lindahl pricing for public goods and experimental auctions for the environment,” Encyclopedia of Energy, Natural Resource, and Environmental Economics, pp. 45–51, 2013.

[15] J. Dwyer, C. Short, M. Berriet-Solliec, F. Gael-Lataste, H-V. Pham, M. Affleck, P. Courtney, and C. Déprès, “Public Goods and Ecosystem Services from Agriculture and Forestry – towards a holistic approach: review of theories and concepts,” Public Ecosystem Goods and Services from land management – Unlocking the Synergies (PEGASUS), 2016, pp. 1-37.

[16] R. Bromley, “Social planning: past, present, and future,” Journal of International Development, vol. 15, no. (7), pp. 819–830, 2003.

[17] F.V. Benda-Beckmann, K.V. Benda-Beckmann, and M.G. Wiber, Changing Properties of Property. New York: Berghahn Books, 2006, pp. 1–39.

[18] T. Sikor, J. He, and G. Lestrelin, “Property rights regimes and natural resources: a conceptual analysis revisited,” World Development, vol. 93, pp. 337–349, 2017.

[19] K. Andersson and C.C. Gibson, “Decentralized governance and environmental change: Local institutional moderation of deforestation in Bolivia,” Journal of Policy Analysis and Management, vol. 26, no. (1), pp. 99–123, 2006.

[20] A. Chhatre and A. Agrawal, “Trade-offs and synergies between carbon storage and livelihood benefits from forest commons” Proceedings of the National Academy of Sciences, vol. 106, no. (42), pp. 17667–17670, 2009.

[21] J.-M. Baland, P. Bardhan, S. Das and D. Mookherjee, “Forests to the people: decentralization and forest degradation in the Indian Himalayas,” World Development, vol. 38, no. (11), pp. 1642–1656, 2010.

[22] D. Edmunds and E. Wollenberg, Local Forest Management: The Impacts of Devolution Policies. London: Earthscan Publications Ltd, 2003.

[23] R.H. Coase, Economic Analysis of the Law: Part 1 The Problem of Social Cost. Blackwell Publishing Ltd, 2003, pp. 1–13.

[24] E.A. Jackson and M. Jabbie, “Understanding market failure in the developing country context,” Munich Personal RePEc Archive (MPRA) Paper, 94577, pp. 1-14, 2019.

[25] J.C. Pereira, “Environmental issues and international relations, a new global (dis)order - the role of International Relations in promoting a concerted international system,” Revista Brasileira de Política Internacional, vol. 58, no. (1), pp. 191-209, 2015.

[26] J. Bansard and M. Schröder, “The sustainable use of natural resources: the governance challenge,” International Institute for Sustainable Development, 2021, pp. 1-10.

[27] P. Haryadi, “Pengembangan hukum lingkungan hidup melalui penegakan hukum perdata di Indonesia,” Jurnal Konstitusi, vol. 14, no. (1), pp. 124-149.

[28] E. Mewengkang, “Prinsip tanggung jawab perusahaan terhadap pencemaran lingkungan,” Lex Crimen, vol. III, no. (2), pp. 54-65, 2014.

[29] R. Heltberg, “Property rights and natural resource management in developing countries,” Journal of Economic Surveys, vol. 16, no. (2), 189-214, 2002.

[30] Irwansyah, “Research-based environmental law: the debate between ecology versus development,” Sriwijaya Law Review, vol. 1, no. (1), pp. 35-52, 2017.

[31] A. Kasztelan, “Green growth, green economy and sustainable development: Terminological and relational discourse,” Prague Economic Papers, vol. 26, no. (4), pp. 487-499, 2017.

[32] Ministry of National Developmet Planning/National Development Planning Agency Republic of Indonesia, Indonesia’s Voluntary National Review 2021: Sustainable and Resilient Recovery from the COVID-19 Pandemic for the Achievement of the 2030 Agenda, 2021.

[33] Ministry of Finance and Economy Brunei Darussalam, Brunei Darussalam’s Voluntary National Review Report at the 2020 United Nations High-Level Political Forum, 2020.

[34] S.H.F. Lee, A. Cunningham, R. Gharif, D. Koh, L. Lai, D.H. Petra, … S.R. Yussof, “Brunei Darussalam: country report on children’s environmental health” Reviews on Environmental Health, vol. 0, no. (0), 2020.

[35] Ministry of Finance and Economy Brunei Darussalam, Towards a Dynamic and Sustainable Economy: Economic Blueprint for Brunei Darussalam, 2020.