

Sustainable Villages : Building a Green Economy for SDGs

Khairul Anwar^{1*}, Maghfur Ahmad², Risma Ayuning Asti³

¹STAI Ki Ageng Pekalongan, Indonesia

^{2,3}Universitas Islam Negeri (UIN) KH. Abdurrahman Wahid Pekalongan, Indonesia

email: khairul.anwar@staikap.ac.id^{1*}, maghfur@uingusdur.ac.id², rismaayu.pkl123@gmail.com³

Author's correspondence: khairul.anwar@staikap.ac.id

Abstract. The Green Economy and Sustainable Development Goals (SDGs) have the same goal as an environmentally friendly and sustainable development program. This research aims to examine the implementation of Green Economy in villages as a strategy to realize Village SDGs. More precisely, to describe and analyze the implementation of the green economy in rural areas, as well as analyze the important reasons for the Green Economy in realizing the Village SDGs. This research is a literature study (library research), using a qualitative approach. The data source used is a secondary data source. Data was obtained through literature and documentation. The research results show that the implementation of a Green Economy can start from villages, such as sustainable waste management, establishing micro hydro power plants, solar power plants, using natural dyes in home batik businesses, and green farming. Green Economy is very important in realizing Village SDGs, as an effort to protect the environment and natural resources; promote social equality and inclusion; and building a resilient and sustainable economy.

Keywords: Green Economy, SDGs Village, Sustainable

1. INTRODUCTION

Environmental damage is the impact resulting from development that is exploitative of the environment in order to gain as much profit as possible (Sofi Mubarak, 2018). Because development involves the environment, the impact of development on the environment is so great, both positive and negative impacts. That is the lack of attention from the parties concerned, the parties concerned only think about how this development continues to be carried out in an effort to get a better standard of living (Habil Adha & Irwan, 2021). Therefore, the concept of development that is oriented not only to the economic sector, but also cares about environmental impacts, needs to be promoted. This concept is referred to as sustainable development.

Makmun (2011) dalam (Iskandar et al., 2021) mentioned that in Indonesia, the concept of sustainable development has started since the 1970s, but until now it still tends to focus on economic development, even on growth that tends to be short. Only economic development—which leans toward extraction—is fueled by the development model that has been created. While it is true that the environment and resource quality have improved, attempts to preserve environmental functions and ensure sustainable resource usage are often falling short of expectations.

Simply stated, sustainable development is development that realizes (meets) the needs of the present without reducing the ability of future generations to realize their needs. The

implementation of socially just economic development is carried out without sacrificing the environment, so that the development carried out today must also think about the needs of the next generation (Rivai & Anugrah, 2011).

Since entering 2000, the United Nations (UN) has launched the MDGs program for the period 2000 to 2015. Then, from 2016 to 2030, the UN again launched the SDGs program. As part of the UN, Indonesia along with 192 other countries participated in adopting SDGs as a sustainable development program. The Indonesian government through Presidential Regulation No. 59 of 2017 has also committed to the success of SDGs (Irhamisyah, 2019).

To implement the SDGs, the Presidential Regulation states three main strategies, namely the establishment of a National Roadmap (PJN) which guides the journey of SDGs implementation from 2017 to the target achievement in 2030. Then, to reduce the big plan in the PJN, the central government made a National Action Plan (NAP) and local governments made Regional Action Plans (RAD), each of which has a five-year period. (Daeli & Fithriana, 2020).

The achievement of SDGs is highly dependent on the implementation of the Green Economy concept. This is because the Green Economy covers three dimensions of sustainable development, namely economic, social and environmental aspects. The Green Economy concept provides solutions to environmental problems and also makes it possible to create new jobs and reduce poverty. Therefore, Green Economy can facilitate the achievement of several SDGs goals such as SDGs 8 (Decent Work and Economic Growth), SDGs 9 (Industry, Innovation, and Infrastructure), SDGs 12 (Responsible Production and Consumption), SDGs 13 (Climate Action), and SDGs 15 (Sustainable Development Goals) (Atonergi, 2021).

Village SDGs are then derived from National SDGs in order to facilitate their realization. In 2020–2024, the village SDGs are anticipated to serve as a guide for village development. The goal of the village SDGs is to achieve the Sustainable Development Goals by establishing villages that are free from poverty, have steady economic growth, prioritize health and the environment, provide quality education, are welcoming to women, are networked, and are sensitive to cultural differences (Sdgs, 2021).

In economic development, sustainable development has several derivative concepts as a concrete form of preserving the environment, one of which is the concept of Green Economy (Nurbadriyah, 2024). Green Economy is present to change the approach to economic development, which was previously based on the exploitation of natural resources and oriented towards short-term profits, to economic development based on the environment. Green Economy can be defined as an economic system that minimizes the use of energy and

natural resources. In other words, the Green Economy concept is a development that is oriented towards economic interests, but still pays attention to environmental interests (Ayu et al., 2023).

Studies on the Green Economy and SDGs have been conducted by many previous researchers. Such as (Hari Kristianto, 2020), which defines the concept of Green Economy in implementing towards achieving green growth and Sustainable Development Goals (SDGs) by taking into account three aspects, namely political aspects, social aspects and economic aspects in making a policy. Meanwhile (Nurbadriyah, 2024) examines the realization of the green economy through the Pawon Urip program to meet the SDGs goals. Meanwhile (Vita & Soehardi, 2022) examines the role of Islamic economics in realizing sustainable development based on green economy. The gap between previous research and this research is that this research focuses on the implementation of the Green Economy in the Village in order to realize the Village SDGs.

This article or research aims to examine the implementation of Green Economy in the village as a strategy to realize the Village SDGs. The research is to answer the formulation of the problem 1) How is the implementation of green economy in rural areas? 2) Why is the Green Economy important in realizing the Village SDGs?

2. THEORITICAL STUDY

Green Economy Concept: The Green Economy highlights the weaknesses of the economic system in modern life today; the new paradigm recognizes that the poorest strata of society suffer the most from environmental damage. The Green Economy is a new way of protecting ecosystems while maintaining economic development and reducing poverty. Emphasizing renewable energy is the right way to implement the Green Economy. The basic principles emphasized by the Green Economy are three, namely: 1) economic growth, 2) quality of economic growth and 3) eco-efficiency. The eco-efficiency aspect is realized in: 1) internalizing biological costs, 2) maximizing the efficient use of various resources, and 3) minimizing the impact of pollution (Zafani, 2021).

SDGs Concept: The SDGs contain 17 targets designed to address development issues in the world related to social, economic and environmental development. With the agreement of the SDGs as an international development agenda as well as making it a reference in the development of each UN member country (Sudirman et al., 2020). The green economy can facilitate the achievement of several SDGS goals such as SDGS 8 (Decent Work and Economic Growth), SDGS 9 (Industry, Innovation, and Infrastructure), SDGS 12 (Responsible

Production and Consumption), SDGS 13 (Climate Action), and SDGS 15 (Life on Land). Through economic transformation towards a green economy, it is believed that it will be able to encourage economic growth and community welfare without reducing environmental quality.

3. RESEARCH METHODS

This research is categorized as a type of library research or what is commonly known as “library research”. This research is carried out with the concept of reading, examining, and analyzing various existing literature, in the form of the Qur'an, hadith, articles, and research results. The approach taken is qualitative. Secondary sources are used to gather, comprehend, and analyze prior journal articles, news stories, and books on pertinent subjects. These can include news stories from online media, books on the Green Economy, and SDGs for the Village. The technique of collecting data in this research is by literature and documentation. Researchers collected data from books, newspapers, magazines, manuscripts, documentation and so on that were relevant to the research. Meanwhile, the data analysis technique used in the research uses a descriptive method, which is research that tries to describe and interpret the facts as they are, growing opinions, ongoing processes, consequences or effects that occur or developing trends.

4. RESULTS AND DISCUSSION

The implementation of the Green Economy, especially in rural areas, will greatly support the achievement of the Village SDGs. This is in line with a statement made by the Minister of Villages, Development of Disadvantaged Regions and Transmigration (Mendes PDTT) Abdul Halim Iskandar, on July 17, 2023, which said that the SDGs need to be localized to the village level to implement sustainable development concretely. “In order for the 2030 goals to be achieved, it is necessary to localize the SDGs to the lowest government area,” said Abdul Halim, as quoted from (Kompas, 2023).

The policy direction of the Village SDGs localizes sustainable village development. Specifically, the Green Economy includes Village SDGs Goal 7: Clean and Renewable Energy Village, Village SDGs Goal 12: Environmentally Conscious Village Consumption and Production, Village SDGs Goal 13: Climate Change Responsive Village, Village SDGs Goal 14: Marine Environment Care Village, and Village SDGs Goal 15: Land Environment Care Village (Asikin, 2022). Referring to the SDGs targets, there are at least five Green

Economy implementations that can be mobilized in villages, although there are actually many things that can be done.

1. Sustainable Waste Management
2. Establishment of Micro Hydro Power Plant (PLTMH)
3. Establishment of Solar Power Plant (PLTS)
4. Eco-friendly Batik Home Industry Business
5. Building Green Economy in Agriculture

Implementation of Green Economy in Rural Areas: Building Green Economy from the Village

The discussion on each of the five points mentioned in the findings chapter will be described one by one as follows.

First, sustainable waste management. According to research (Rohmah & Rahman, 2023), the main problem in implementing the current Green Economy in order to create sustainable development is waste. The large amount of waste that is not balanced with waste management solutions will cause new problems in Tanjungkalang Village, Ngronggot District. According to the community, the piles of garbage mostly come from household waste that is not managed properly. This happens because of the lack of knowledge and education for housewives regarding household waste management which causes waste to not be properly specified.

Meanwhile, (Pakaya, 2019) stated that the application of the 3R principle (reduce, reuse, recycle) in tackling household waste plays an active role in reducing the presence of this waste. This supports the government program stipulated in Presidential Regulation Number 97 of 2017 concerning National Policy and Strategy (Jastranas) for Household Waste Management. This PP requires waste reduction and handling and good waste management in districts and cities that can be measured. Livable cities Planning and concrete actions in waste reduction and handling are realized through regional policies and strategies. Thus, liveable cities are realized. Local governments as the spearhead of waste management as mandated by Law Number 18/2008 need to innovate to attract public interest, one of which is sorting and saving waste in waste banks.

According to research from Sarfiah dan Juliprianto (2017), based on a case study of the Semali hamlet community in Magelang district, it was found that the waste bank program has provided positive benefits to the environment in the form of a cleaner environment, where the pile of garbage in the environment is significantly reduced, as well as an increase in community income (Sarfiah & Juliprijanto, 2017).

Not only that, the Waste Bank program also affects the social aspect. Residents feel that mutual cooperation and communication began to exist and intertwine again when the Waste Bank was formed. Because previously, the value of mutual cooperation was felt to be diminishing. Social activities such as neighborhood gatherings, community service and others become routine (Afrizal et,al, 2020). For this reason, effective waste management is essential to achieving many goals, chief among them being sustainable development. One way that consumption and production have been held accountable is through sustainable waste management (SDGs 12) (Nabila Zahra Nur Aminah, 2021).

If the Waste Bank Program can run well, especially if it can be implemented in every village in Indonesia, it will certainly be able to help the economic circulation of many parties, including the lower class. This is in accordance with the concept of Green Economy, which is one of the government's priority programs where the goal is to improve human welfare and social equality, while significantly reducing environmental risks (Masduqie et al., 2021).

Second, the application of the Green Economy from rural areas can also be embodied in Micro Hydro Power Plants (PLTMH) as a source of clean energy for remote villages, which have not yet had access to lighting from the State Electricity Company (PLN). It was noted that in 2023, as many as 140 villages, all located in Papua, had not received electricity (Febrianna, 2023). Microhydro Power Plant (MHP) itself is a small-scale power plant (less than 200 kW), which utilizes the power (flow) of water as an energy-producing source. MHP is a renewable energy source and deserves to be called clean energy because it is environmentally friendly (Damastuti, 1997).

In line with SDGs Village Goal 7, during 2015-2019 alone, 2,065 villages have built Micro Hydro Power Plants (PLTMH). For example, in Karangtengah Village, Cilongok District. Banyumas Regency, Central Java, is an energy independent village that utilizes electricity from a Micro Hydro Power Plant (PLTMH). Thanks to the MHP, which is powered by river currents, this village has its own energy supply and does not depend on electricity from the State Electricity Company (PLN). Thanks to the MHP, there are currently 75 buildings that are powered by stable electricity from the MHP. In detail, 73 houses are subject to compulsory contributions and 2 public facilities are free of contributions, in the form of the neighborhood hall and mosque (Daaitv, 2024).

Third, the utilization of sunlight energy sources. Apart from water energy sources, sunlight energy sources can also be used to provide electricity in the homes of residents in rural areas. This is called a solar power plant or PLTS. Solar energy is a renewable energy source that is abundant and available throughout Indonesia. With the utilization of PLTS

technology, solar energy can be converted into electricity that can power the village. In addition, solar energy is also an environmentally friendly and sustainable solution to meet electricity needs in rural areas (Panda, 2023).

The development of solar power plants in Indonesia is spread across various regions. Among them, there are PLTS with large installed capacities. Reporting from various sources, there are four largest PLTS in Indonesia based on their installed capacity. Among them are Cirata Floating Solar Power Plant, which is the largest floating solar power plant in Indonesia and Southeast Asia with a total installed capacity of 192 MWp. PLTS Likupang has an installed capacity of 21 MWp which supports electricity in the PLN Sulutgo network (North Sulawesi-Gorontalo), PLTS Atap Coca-Cola which reaches 7.2 MWp and PLTS Oelpuah which has an installed capacity of 5 MWp (Pristiandaru, 2023).

The utilization of MHP and PLTS is in line with the Green Economy movement which strongly upholds Low Carbon Development (SCD). There is a policy, within the framework of SCP, to gradually reduce the use of coal and switch to renewable energy. The use of water sources (MHP) and sunlight sources (PLTS) to light up people's lives is an effort to implement renewable energy. The Indonesian government incorporated Low Carbon Development (LCD) into the National Medium-Term Development Plan 2020-2024 (Manahara et al., 2023).

Fourth, the batik home industry is environmentally friendly. The Green Economy can also be implemented in the home-scale batik business owned by residents in rural areas. This is in line with the research of Anwar, et.al (2023) which states that the concept of green economy in the Batik Pesisir and Batik Dudung businesses is only partially implemented, namely in the form of natural color batik production, and minimization of batik waste (Anwar et al., 2023). Batik business actors should not pollute the environment. A business must be guided by the concept of environmentally friendly. To support the implementation of environmentally friendly development, batik business actors, in addition to having their own waste processing equipment, can also develop their business into the concept of ecoprint batik.

Eco-print batik is a type of batik that uses natural coloring techniques from plants to print motifs on the fabric. This process involves the use of leaves, flowers, and other plant parts that are placed on the fabric, then boiled or processed in a certain way so that the natural colors and shapes of the plants are transferred to the fabric. Eco-print batik is known for its environmentally friendly approach and unique and natural aesthetics. the selection of eco-print batik is because eco-print batik uses environmentally friendly natural coloring

techniques, which do not contain harmful chemicals such as synthetic dyes (Aflit Nuryulia Praswati, 2024). Batik businesses that apply environmentally friendly concepts will have a positive impact on the sustainability of people's lives.

Apart from being economically profitable, batik businesses that prioritize the concept of green economy will have an impact on achieving good environmental quality. Basically, business activity is an activity of managing economic resources provided by the natural environment. Therefore, the relationship between ethics, business and the environment is very close. The relationship between ethics, business, and the environment occurs in terms of the use of raw materials, such as waste disposal, industrial processes, and production results. This implies that if a business requires raw materials from nature, nature must be treated properly without destroying its habitat (Azizah & Hariyanto, 2021).

Fifth, Green Economy in Agriculture. Sustainable development through the Green Economy scheme in rural areas can also be implemented in agriculture. Villages are the basis of agriculture. The green economy places a strong emphasis on minimizing adverse effects on the environment while promoting sustainable economic growth. This has major ramifications for the agriculture sector. First, the implementation of green economy in agriculture can improve farmers' welfare, reduce food waste, protect the environment, and empower local communities. Second, post-harvest processing plays a central role in achieving these goals. Post-harvest processing can help sustainably farmed land by lowering food waste, improving energy efficiency, assisting farmers, and providing access to new markets. Even if there are obstacles to overcome, including investing in infrastructure, educating farmers, and enacting supportive laws, these actions can help the agriculture industry move toward a more environmentally friendly future. By raising consumer knowledge, we can foster an atmosphere in which agriculture and the environment may coexist and benefit one another, promoting global food security (Rahardjo et al., 2023).

In the context of the Green Economy, agricultural waste management is a key element in green economy strategies, as well-managed waste can reduce soil and water pollution and greenhouse gas emissions. Effective waste management can reduce the environmental impact of agriculture. In addition, agricultural waste such as crop residues and livestock manure have the potential to be converted into renewable energy through processes such as biomass conversion, technologies such as composting and biogas can significantly reduce the volume of waste that needs to be disposed of, while producing energy and valuable organic fertilizer. Efficient waste management not only helps in maintaining environmental quality, but also

provides additional economic value through the reutilization of waste as a resource (Susanto et al., 2024).

In addition, another form of implementation of green agriculture, is the use of organic farming to avoid the use of chemicals as fertilizers, growth substances and pesticides. Organic farming systems are holistic production systems that naturally optimize the health and productivity of agroecosystems, producing sufficient, high-quality, and sustainable food and fiber. Organic farming can be done by replacing chemical fertilizers with fertilizers derived from recycling organic waste. This method can also support the Green Revolution movement of the 1970s (Pertanian.go.id, 2024).

The five points are very possible to be implemented in certain villages, such as an environmentally friendly batik business that can be implemented in rural areas where there is a batik industry. Or the establishment of PLTMH and PLTS that can be built in villages that do not have access to electricity from PLN. As for the green agriculture sector and waste banks, this can be intensified in every village in Indonesia. This is to support the Green Economy movement, which aims to improve social welfare without the risk of environmental damage.

Green Economy development from the village, such as doing the five aspects above, is in line with the theory of sustainable economic development. Economic development in various fields is measured sustainably based on 3 criteria, namely: (1) There is no waste in the use of natural resources (Depletion of Natural Resources), (2) There is no pollution and other environmental consequences, (3) Activities carried out must be able to increase useable resources or replaceable resources (Agustina et al., 2022).

The concept of the five developments above is also in line with the Green Economy theory. Green economy can increase the value of natural capital / earth, some sectors in the green economy are clean technology, improving freshwater infrastructure, increasing sustainable energy, low-carbon transportation with energy-efficient design, clean technology waste management, sustainable agriculture and forestry sector, national policy changes in the investment sector supported by the development of international policies and market infrastructure (Hari Kristianto, 2020).

Green Economy is Important in Realizing Village SDGs

There are 4 pillars in the SDGs (United Nations, 2015) among others:

1. The pillar of social development, namely in the social development of SDGs is the achievement of the fulfillment of quality basic human rights in a fair and equal manner to improve welfare for all people.
2. The pillar of environmental development, which is the achievement of sustainable management of natural resources and the environment as a support for all life.
3. The pillar of economic development, namely the achievement of quality economic growth through the sustainability of employment and business opportunities, innovation and inclusive industry, adequate infrastructure, affordable clean energy and supported by partnerships.
4. Pillars of legal development and governance, namely the realization of legal certainty and effective, transparent, accountable and participatory governance to realize security stability and achieve a state based on law (Raziqi et al., 2022).

In the SDGs, and in relation to the five aspects discussed in the previous section, these pillars are certainly very relevant. For example, sustainable waste management, in this case the example of the Waste Bank. Waste Bank, besides having a positive impact on the environmental ecosystem, also has a positive impact on the community's economy. The 12th Village SDGs will be realized if waste can be managed properly, sustainably. In this case, the Green Economy is important in realizing the Village SDGs for several reasons. Among others:

1. Protecting the Environment and Natural Resources

The Green Economy promotes more efficient use of natural resources, reduction of greenhouse gas emissions, and transition to renewable energy (Yudawisastra, 2021). This is a critical step in dealing with climate change, which is a serious threat to global ecosystems and human life. By maintaining a balanced ecosystem, we not only protect the planet for future generations but also ensure that economic activities can continue without harming the environment.

The concept of a "green economy" was developed by the United Nations Environment Program (UNEP) to aid in the reduction of greenhouse gas emissions and other initiatives to satisfy the need for renewable energy. This concept attempts to offer a significant chance for initiatives to apply the green economy idea in order to facilitate the implementation of development focused on ecosystem and environmental elements (Iskandar et al., 2021).

2. Promoting Equality and Social Inclusion

One of the key principles of the Green Economy is to ensure that no one is left behind in the development process. This means empowering vulnerable groups, such as the poor, women, people with disabilities and indigenous peoples, by giving them access to resources, training and economic opportunities. Through this approach, we not only reduce social disparities, but also create a more just and harmonious society (Fiana, 2024).

A low-carbon Green Economy is able to allocate resources efficiently which is able to maintain the wealth of natural resources and the environment. Green economy principles are also socially inclusive because they prioritize the fulfillment of needs such as water, clean air, and access to health and education for people (Greenpeace Indonesia, 2024).

3. Building a Resilient and Sustainable Economy

By integrating environmental and social aspects into economic strategies, the Green Economy helps create the foundation for sustainable and resilient economic growth. This economic model aims not only for short-term growth, but also for stability and sustainability in the long term. Thus, an inclusive and green economy can more easily adapt to global changes, such as market fluctuations or natural disasters.

All state actors, including the government and local governments, the people, the Third Sector, which includes non-governmental organizations, and all observers and practitioners of National Resilience, must be present in order for the program to be successful and for the results of the SDGs to be maximized and felt by all segments of society this extended period (Irhamisyah, 2019).

5. CONCLUSION

Green Economy strongly supports the SDGs program, including Village SDGs. The Green Economy concept can be developed, or say, started from the village. Waste Banks, Micro Hydro Power Plants, Solar Power Plants, Environmentally Friendly Batik Businesses, and Green Agriculture, are some examples of Green Economy activities that can be or have already been carried out in several villages in Indonesia. Green Economy plays a very important role in realizing the achievement of Village SDGs, namely as a means of protecting the environment and natural resources; promote social equality and inclusion; and building a resilient and sustainable economy.

It is hoped that the results of this research will have implications for the direction of local government policy, including in this case the village government, to strive for

environmentally friendly development. Apart from that, this research is also expected to contribute to village community awareness of the importance of protecting and preserving the environment. Suggestions for further research are to focus more on one aspect, for example researching the Green Economy in rural agriculture, as a strategy to achieve the SDGs.

ACKNOWLEDGMENTS

We would like to thank the STAI Ki Ageng Pekalongan campus for facilitating and giving us the opportunity to work, also to Mr. Maghfur who has given us knowledge about qualitative research.

REFERENCE

- Agustina, L. D., Kirana, A. P., Rahayu, E. S. P., Arif, M. F., Irianto, H., & Nurany, F. (2022). Green economy dalam pengembangan desa wisata Miru Kecamatan Kedamean Kabupaten Gresik. *Jurnal Penelitian Pendidikan Sosial Humaniora*, 7(2), 63–73.
- Aminah, N. Z. N. A. M. (2021). Pengelolaan sampah dalam konteks pembangunan berkelanjutan (Waste management in the context of waste management). *Hmgrp.Geo.Ugm.Ac.Id*. <https://hmgrp.geo.ugm.ac.id/2021/08/27/pengelolaan-sampah-dalam-konteks-pembangunan-berkelanjutan-waste-management-in-the-context-of-waste-management/>
- Anwar, K., Susminingsih, S., & Ma'shum, A. M. M. H. (2023). Development of green economy in the batik industry from a Maqashid Sharia perspective. *IQTISHADUNA: Jurnal Ilmiah Ekonomi Kita*, 12(2), 209–225. <https://doi.org/10.46367/iqtishaduna.v12i2.1471>
- Asikin, N. (2022). Ekonomi hijau mulai dari desa. *Jawa Pos*. <https://www.jawapos.com/opini/01422827/ekonomi-hijau-mulai-dari-desa>
- Atonergi, B. (2021). Apa itu green economy dan bagaimana pengaruhnya pada SDGs. *Atonergi.com*. <https://atonergi.com/apa-itu-green-economy-dan-bagaimana-pengaruhnya-pada-sdgs/>
- Azizah, M., & Hariyanto, H. (2021). Implementasi etika bisnis Islam terhadap konsep green economics. *Supremasi Hukum: Jurnal Kajian Ilmu Hukum*, 10(2), 237–252. <https://doi.org/10.14421/sh.v10i2.2392>
- Daaiv. (2024). Mandiri energi, desa di Jawa Tengah ini pakai listrik hemat dari PLTMH. *Daaiv.co.id*. <https://daaiv.co.id/DAAI-WP/mandiri-energi-desa-di-jawa-tengah-ini-pakai-listrik-hemat-dari-pltmh-2/>
- Daeli, S. N., & Fithriana, A. (2020). Upaya Indonesia untuk mencapai Sustainable Development Goals (SDGs) poin 3 melalui Pos Bimbingan Terpadu (Posbindu). *Balcony (Budi Luhur Journal of Contemporary Diplomacy)*, 4(1), 81–92. <https://jom.fisip.budiluhur.ac.id/index.php/balcony/article/view/222>

- Damastuti, A. P. (1997). Pembangkit listrik tenaga mikrohidro. *WACANA*, 7(8), 11–12.
- Fiana, D. (2024). Mewujudkan SDGs melalui prinsip green economy inclusive. *Berandainspirasi.id*. <https://berandainspirasi.id/mewujudkan-sdgs-melalui-prinsip-green-economy-inclusive-langkah-menuju-masa-depan-yang-berkelanjutan-dan-inklusif/>
- Greenpeace Indonesia. (2024). Transisi ke ekonomi hijau yang inklusif dan berkeadilan jawaban terhadap krisis iklim dan sosial saat ini. *Greenpeace.org*. <https://www.greenpeace.org/indonesia/siaran-pers/58308/transisi-ke-ekonomi-hijau-yang-inklusif-dan-berkeadilan-jawaban-terhadap-krisis-iklim-dan-sosial-saat-ini/>
- Habil Adha, T., & Irwan, I. (2021). Kerusakan lingkungan akibat pembangunan infrastruktur dalam karya seni grafis. *The Journal of Art Education*, 10(2), 157–168. <https://doi.org/10.24036/sr.v9i3.112292>
- Hari Kristianto, A. (2020). Sustainable Development Goals (SDGs) dalam konsep green economy untuk pertumbuhan ekonomi berkualitas berbasis ekologi. *JBEE: Business, Economics and Entrepreneurship*, 2(1), 27–38. <https://doi.org/10.46229/b.e.e..v2i1.134>
- Irhamisyah, F. (2019). Sustainable Development Goals (SDGs) dan dampaknya bagi ketahanan nasional. *Jurnal Kajian LEMHANNAS RI*, 7(2), 45–54.
- Iskandar, A., Aqbar, K., & Herman, S. (2021). Energi terbarukan dan ekonomi syariah: Sinergitas mewujudkan sustainable development. *SALAM: Jurnal Sosial dan Budaya Syar-i*, 8(3), 711–734. <https://doi.org/10.15408/sjsbs.v8i3.20347>