

Sustainable Development Legal Policies In The Implementation Of Sustainable Construction At Indonesia

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Article Info	Abstract
Received: 2022-08-12 Revised: 2023-02-21 Accepted: 2023-03-31 Keywords: Sustainable Construction, Environment, Sustainable Development	<i>This research aims to examine the legal regulation of sustainable development and construction in Indonesia, and comprehensively discuss legal policies in overcoming the challenges and obstacles of sustainable construction. This type of research is normative juridical with a descriptive-analytical approach to discuss existing legal symptoms and problems and test them based on legislation and legal norms. The results of this research show that the legal regulation of sustainable development and construction is regulated in: the environmental protection and management law, the construction services law, the Presidential Regulation on the implementation of achieving sustainable development goals, and the PUPR ministerial regulation on guidelines for implementing sustainable construction in conjunction with the PUPR ministerial regulation on assessing the performance of green buildings. Legal policies in facing challenges and obstacles to sustainable development and construction are carried out through penal policies, namely strengthening regulations as guidelines for sustainable development and construction, the obligation to make strategic environmental studies in every government program and policy, non-penal by involving community participation in development, education, improving the quality of human resources and mastering green construction technology..</i>

1. Introduction

National development is carried out to achieve the goals of the state as stated in the preamble of the 1945 Constitution, namely protecting the entire nation and all Indonesian bloodshed, advancing general welfare, educating the nation's life, implementing world order based on independence, lasting peace, and social justice.¹ The essence of national development is to create a prosperous life for Indonesian people outwardly and mentally. Development that is physical/non-physical must be carried out continuously in various aspects of the life of society,

¹ Yuniwati, "Politik Hukum Dalam Kesejahteraan Rakyat," *Justicia Sains: Jurnal Ilmu Hukum* 2, no. 2 (December 2017): 131–40, <https://doi.org/10.24967/jcs.v2i2.280>.

nation, and state.

Along with the times, population growth, economic and industrial growth, the need for resources is also increasing. Massive exploitation of natural resources continues to be carried out to meet human needs. This results in the erosion of natural resources which will become a big problem in the future.² The decrease in the quantity and quality of natural resources has a direct impact on planning, needs, and integrated environmental management. Environmental damage is also closely related to poverty and economic growth rates.³ Overcoming this problem requires efforts to preserve and restore natural resources and wisdom in their use.⁴

As one of the efforts to answer the problem, Indonesia is implementing sustainable development. The concept of sustainable development was popularized through the 1987 report of the World Commission on Environment and Development (WCED) in the United Nations entitled *Our Common Future*, defining sustainable development as development that meets the needs of current generations without reducing the ability of future generations to meet their needs.⁵ Some important ideas of sustainable development are, first, the idea of the essential needs of the poor which must be the top priority. Second, as a foresight (long-term) that emphasizes the precautionary principle against the potential for serious threats or something that cannot be prevented, to overcome environmental degradation. Third, integrating complex relationships between environmental, economic, and social aspects of society which are the main pillars of sustainable development.⁶

Indonesia is committed to implementing sustainable development in national development, especially in infrastructure equitable programs. The government has prepared the National Medium-Term Development Plan (RPJMN) 2020-2024, where the vision is "the realization of an advanced Indonesia that is sovereign, independent and has a personality based on gotong-royong", along with several supporting missions. There are two important missions regarding development and the environment, namely equitable development and a sustainable environment. These two missions are interrelated to achieve equitable development in various lines to support the lives and welfare of the community while still paying attention to sustainable environmental aspects.⁷

The implementation of infrastructure development that meets environmental management provisions and supports sustainable development must pay attention to security, safety, health, and sustainability or environmental balance.⁸ A

² Deny Hidayati, "Memudarnya Nilai Kearifan Lokal Masyarakat Dalam Pengelolaan Sumber Daya Air," *Jurnal Kependudukan Indonesia* 11, no. 1 (2017): 39, <https://doi.org/10.14203/jki.v11i1.36>.

³ Etika Khairina, Eko Priyo Purnomo, and Ajree D Malawnai, "Sustainable Development Goals: Kebijakan Berwawasan Lingkungan Guna Menjaga Ketahanan Lingkungan Di Kabupaten Bantul Daerah Istimewa Yogyakarta," *Jurnal Ketahanan Nasional* 26, no. 2 (2020): 155, <https://doi.org/10.22146/jkn.52969>.

⁴ Subarkah, "Implementasi Hukum Progresif Dalam Pembangunan Berkelanjutan Ekologis Kajian," *Jurnal Yudisial* Vol 8, no. 3 (2015): 289–306, <https://doi.org/http://dx.doi.org/10.29123/jy.v8i3.59>.

⁵ Sugandhy, *Prinsip Dasar Kebijakan Pembangunan Berkelanjutan Berwawasan Lingkungan*. (Bandung: Bumi Aksara, 2007).

⁶ Muhammad Fardan Ngoya, "Mengawal Sustainable Development Goals (SDGs); Meluruskan Orientasi Pembangunan Yang Berkeadilan," *Sosioireligius* I, no. 1 (2015): 77–88, <https://doi.org/https://doi.org/10.24252/sosioireligius.v1i1.4525>.

⁷ R. Supyan Yusrie, Chaira Saidah; Aminah, Siti; Wasliman, Iim; Sauri, "Kebijakan Publik Dan Kinerja Birokrasi Pendidikan Dalam Kompleksitas Perkembangan: Kajian Rencana Pembangunan Nasional," *Jurnal Dirosah Islamiyah* 2, no. 2 (2020): 126, <https://doi.org/10.17467/jdi.v2i2.342>.

⁸ Agustina and Sagita Purnomo, "Kajian Hukum Penyelesaian Sengketa Kegagalan Bangunan Dalam

sustainable development approach to infrastructure development is a must. Sustainable infrastructure development must be carried out through the stages of programming, technical planning, construction implementation, and utilization to demolition which always pays attention to the use of resources that meet sustainable principles. Sustainable construction is carried out based on three main pillars, namely economically feasible and can improve community welfare, maintain environmental conservation, and reduce social disparities in the community.⁹

Based on the United Nations Environment Programme (UNEP) study, sustainable construction is the way the construction industry develops to achieve the quality of sustainable development, taking into account environmental, socio-economic, and cultural conservation, construction management, materials, operational quality of buildings, energy consumption and natural resources. Sustainable construction requires in-depth studies, synergies between various methods and approaches with technology exploration, and planning/strategies that prioritize the welfare of the community and the environment.¹⁰

Green construction or environmentally friendly construction is the practice of building by applying processes that pay attention to the environment, and efficient use of energy and resources throughout the life cycle of the building from the planning, implementation, and use of construction products. Green construction planning is expected to produce an efficient building system in the use of energy, water, and materials that can be recycled, and reused and reduce excessive material use (reduce).¹¹

In the implementation of sustainable development and sustainable construction, there are a number of challenges or obstacles, including limited funds/budgets, regulations that have not been supported, and the quality of human resources to supporting tools and technology. Therefore, to overcome this problem, an effective policy is needed to realize sustainable construction, one of which is contained in the Presidential Regulation of the Republic of Indonesia Number 111 of 2022 concerning the Implementation of Achieving Sustainable Development Goals jo Regulation of the Minister of Public Works and Public Housing of the Republic of Indonesia Number 9 of 2021 concerning Guidelines for the Implementation of Sustainable Construction.

Based on the description above, the formulation of the problem that is the focus of this study is how is the legal regulation of sustainable development and construction in Indonesia? How is the legal policy in overcoming the challenges and obstacles of sustainable construction?

Pekerjaan Konstruksi," *Jurnal Rectum: Tinjauan Yuridis Penanganan Tindak Pidana* 5, no. 2 (May 8, 2023): 42, <https://doi.org/10.46930/jurnalrectum.v5i2.3153>.

⁹ Kementerian Pekerjaan Umum dan Perumahan Rakyat Republik Indonesia, *Buku 1 Konstruksi Indonesia 2021: Era Baru Konstruksi Berkarya Menuju Indonesia Maju*, Direktorat Jenderal Bina Konstruksi Kementerian PUPR-RI (Jakarta: Pusat Data dan Informasi Kementerian PUPR-RI, 2021), https://binakonstruksi.pu.go.id/storage/Buku_Konstruksi_2021_1-compress.pdf.

¹⁰ Novianto Pambudi, *Faktor-Faktor Penghambat Dalam Penerapan Konstruksi Berkelanjutan Pada Proyek Konstruksi Indonesia : Studi Kasus Proyek Konstruksi Di Kota Makassar* (Makassar: Fakultas Teknik Universitas Hasanuddin Makassar, 2018).

¹¹ Nur Asriani Maulidianti, "Identifikasi Konsep Green Construction Pada Perencanaan Gedung Perpustakaan Pusat Universitas Tanjungpur," *JeLAST : Jurnal PWK, Laut, Sipil, Tambang* 8, no. 1 (2021): 1-8, <https://doi.org/http://dx.doi.org/10.26418/jelast.v8i1.44606>.

2. Research Method

In accordance with the subject matter, the type of legal research carried out is normative juridical research or research that analyzes written law, jurisprudence and norms that live in society. The approach is descriptive analytical which aims to take systematic, factual and accurate data on a problem based on laws and regulations and applicable legal norms. Data collection techniques are carried out through library research, namely to obtain data by reviewing literature materials or secondary data which include primary legal materials, secondary legal materials which can be in the form of laws and regulations, books and works or other scientific journals or tertiary legal materials in the form of dictionaries, magazines, newspapers and articles.¹²

3. Results and Discussion

Legal Regulation of Sustainable Development and Construction in Indonesia

Development has an important meaning in creating a better life in various aspects, meaning that development must be carried out in a balanced manner while still paying attention to the economy, environment and social community. To ensure the implementation of sustainability, an integrated ecosystem is needed. The balance of development while still paying attention to social, economic and environmental aspects, is carried out as a manifestation of Pancasila and the 1945 Constitution as the highest source of Indonesian law.¹³

Article 33 Paragraph (3) of the 1945 Constitution states "Earth and water and the natural resources contained therein are controlled by the state and used for the greatest prosperity of the people". This formulation gives the state the right to control all natural resources and the state's obligation to manage them for the prosperity of all Indonesian people. That prosperity must be enjoyed by present and future generations in a sustainable manner.¹⁴

Sustainable construction is a technical part in realizing sustainable development. Sustainable construction is a fundamentalist value in the implementation of construction work, both infrastructure development and buildings in Indonesia that prioritize environmental conservation. Legal regulations on sustainable development and construction are regulated in several provisions, namely:

- a. Law Number: 32 of 2009 concerning Environmental Protection and Management;
- b. Law Number: 2 of 2017 concerning Construction Services;
- c. Presidential Regulation (Perpres) of the Republic of Indonesia Number: 111 of 2022 concerning the Implementation of the Achievement of Sustainable Development Goals;

¹² Ronny Hanitijo Soemitro, *Metodologi Penelitian Hukum Dan Jurimetri* (Jakarta: Galamania Indonesia, 1990).

¹³ Anik Kunantiyorini, "Pancasila Sebagai Sumber Hukum Dalam Sistem Hukum Nasional Pancasila as the Source of Law in the National Legal System," *Jurnal Konstitusi* 15, no. 1 (2018): 27-49, <https://jurnalkonstitusi.mkri.id/index.php/jk/article/view/1512/351>.

¹⁴ Elli Ruslina, "Makna Pasal 33 Undang-Undang Dasar 1945 Dalam Pembangunan Hukum Ekonomi Indonesia," *Jurnal Konstitusi* 9, no. 1 (May 20, 2016): 49, <https://doi.org/10.31078/jk913>.

- d. Regulation of the Minister of Public Works and Public Housing of the Republic of Indonesia Number: 9 of 2021 concerning Guidelines for the Implementation of Sustainable Construction;
- e. Regulation of the Minister of Public Works and Public Housing of the Republic of Indonesia Number: 21 of 2021 concerning Performance Assessment of Green Building Buildings (BGH).

Article 1 Paragraph (3) of Law Number: 32 of 2009 concerning Environmental Protection and Management states that sustainable development is a conscious and planned effort that integrates environmental, social and economic aspects into development strategies to ensure the integrity of the environment as well as the safety, ability, welfare and quality of life of present and future generations.

Article 1 Paragraph (2) of Law Number: 2 of 2017 concerning Construction Services states that the implementation of construction services is carried out based on the principles of honesty and justice, benefits, equality, harmony, balance, professionalism, independence, openness, partnership, security and safety, freedom, sustainable development and environmental insight. The explanation of Article 1 Paragraph (2) of Law Number: 2 of 2017 concerning Construction Services states that the principle of sustainable development is that the implementation of construction services is carried out by thinking about the impact on the environment that is maintained continuously regarding ecological, economic, and socio-cultural aspects. Environmental insight is the implementation of construction services, paying attention to and prioritizing environmental protection and maintenance.

Article 1 Paragraph (1) of Presidential Regulation Number: 111 of 2022 concerning the Implementation of the Achievement of Sustainable Development Goals states that sustainable development goals are a global development agenda to end poverty, improve welfare, and protect the planet, through the achievement of 17 (seventeen) goals until 2030. This Presidential Regulation is a direct instruction by the President to his staff in organizing sustainable development including sustainable construction in the implementation of construction services.

Article 1 Paragraph (5) of the Regulation of the Minister of Public Works and Public Housing (PUPR) of the Republic of Indonesia Number 9 of 2021 concerning Guidelines for the Implementation of Sustainable Construction, states that sustainable construction is an approach in carrying out a series of activities needed to create a physical facility to meet current and future economic, social and environmental goals. The implementation of construction services to erect buildings or civil buildings must implement sustainable construction consisting of three main pillars, namely:

- a. economically feasible and can improve people's welfare;
- b. maintaining environmental preservation;
- c. reduce social disparities of society.

Article 1 Paragraph (2) of PUPR Ministerial Regulation Number: 21 of 2021 concerning Green Building Performance Assessment (BGH), states that BGH is a building that meets technical standards and has significant measurable performance in saving energy, water and other resources through the application of BGH principles in accordance with the function, classification at each stage of its implementation. This regulation is an assessment standard and guideline in the implementation of building construction that prioritizes energy efficiency, and

resources and is environmentally friendly as well as sustainable development goals.

To minimize the negative impact of infrastructure development on the environment, the Ministry of PUPR is committed to implementing sustainable infrastructure development. One of the efforts made is the issuance of Government Regulation Number 14 of 2021 as a rule for the implementation of Law Number 11 of 2020 concerning Job Creation, which in Article 84 Paragraph (1) mandates that the implementation of construction services to erect buildings and/or civil buildings must meet the principle of sustainability in all resources, and the life cycle of buildings.

The implementation of infrastructure development activities can change the conditions and functions of the environment, both natural and social life in its life cycle starting from the stage of programming, technical planning, implementation, and utilization, to demolition will consume a lot of resources and have an impact on the surrounding environment.¹⁵ Infrastructure development that is carried out by taking into account economic, social and environmental aspects is very important to be implemented.

All stages of sustainable construction must contain technical criteria based on several aspects including:

- a. technical aspects are aspects that must be met to maintain building reliability including building technical criteria, security, safety, health, and sustainability standards (K4 Standard), and meet the suitability of building functions;
- b. The environmental aspect is an aspect that maintains the continuity of the carrying capacity and accommodating capacity of the environment utilizes resources efficiently, and minimizes environmental impact, land use, energy conservation, water conservation, material sources and cycles, comfort and health and environmental management;
- c. economic aspect is an aspect that can provide economic benefits for all parties and encourage continuous improvement of the economic welfare of the community including contributions to increasing regional economic potential, prioritizing programs to obtain the maximum benefit for the community, resource efficiency, supporting local businesses and MSMEs;
- d. Social aspect is an aspect that has an impact on reducing social inequality as a whole, including community participation, gender elements, people with disabilities and marginalized people, supporting community interaction, and preserving culture or local wisdom.¹⁶

The development of infrastructure or infrastructure which is the main capital moves the wheels of the economy and social order of the community, applying the concept of *sustainable development which is further applied in sustainable construction*. The concept of sustainable construction must meet the principle of sustainability in all resources and the life cycle of buildings, namely:¹⁷

- a. similarity of goals, understanding, and action plans;
- b. compliance with K4 standards;

¹⁵ Buletin Umbara, *Strategis Legal Solutions*. Peraturan Pelaksana Undang-Undang Jasa Konstruksi Baru, 2021.

¹⁶ Indonesia, *Buku I Konstruksi Indonesia 2021: Era Baru Konstruksi Berkarya Menuju Indonesia Maju*.

¹⁷ *Ibid*,

- c. reduction in the use of resources, both in the form of land, materials, water, natural resources, and human resources;
- d. reduction of waste, both physical and nonphysical;
- e. reuse of previously used resources;
- f. resource usage of recycling results;
- g. protection and management of the environment through conservation efforts;
- h. mitigation of safety, health, climate change, and disaster risks;
- i. orientation to the life cycle;
- j. orientation to the achievement of the desired quality;
- k. technological innovation for continuous improvement;
- l. institutional, leadership, and management support in implementation.

Legal Policy in Overcoming the Challenges and Obstacles of Sustainable Construction

Environmental protection and management is still an issue that has not been resolved until now. Environmental problems and sustainable development require appropriate policies and handling, considering the nature of development is to achieve sustainable growth and environmental insight.¹⁸ National development leads to short-term goals and long-term goals. The short-term goal of national development is to improve the standard of living, intelligence and welfare of a just and equitable society. The long-term goal is to create a just and prosperous society both materially and spiritually based on Pancasila¹⁹.

In detail, the sustainable development goals program is divided into six components, namely: Planet or ecosystem protection for the community. People guarantee a healthy life, education and inclusion of women and children. Dignity eradicates poverty and injustice. Prosperity builds self-reliance and energy transformation. Justice promotes a safe and peaceful environment supported by strong institutions. Partnership catalyzes global solidarity that supports sustainable development.²⁰

In the implementation of sustainable construction in Indonesia there are various obstacles including:

- a. limited funds/budget;
- b. limitations of regulations and/or standards that encourage the application of sustainable construction concepts;
- c. limitations of tools and materials that meet the criteria of sustainable construction;
- d. a limited number of experts;
- e. limitations of guidelines/modules on the concept of sustainable construction;
- f. conventional construction methods are more desirable than sustainable construction methods;

¹⁸ Rahmat Saputra, "Konstruksi Peraturan Pemerintah Pasca Pengesahan Undang-Undang Cipta Kerja Terhadap Pembangunan Berkelanjutan," *Bina Hukum Lingkungan* 5, no. 3 (2021): 399-415, <http://bhl-jurnal.or.id/index.php/bhl/article/view/bhl.v5n3.1>.

¹⁹ Yusrie, Chaira Saidah; Aminah, Siti; Wasliman, Iim; Sauri, "Kebijakan Publik Dan Kinerja Birokrasi Pendidikan Dalam Kompleksitas Perkembangan: Kajian Rencana Pembangunan Nasional."

²⁰ Arif Sofianto, "Integrasi Target Dan Indikator Sustainable Development Goals Ke Dalam Perencanaan Pembangunan Daerah Di Jawa Tengah," *Jurnal Litbang Provinsi Jawa Tengah* 17, no. 1 (2019): 25-41, <https://doi.org/10.36762/litbangjateng.v17i1.769>.

g. limited knowledge of the implementation of sustainable construction.²¹

In addition, Bon Gwang Hwang explained the challenges in implementing green construction, namely:

a. Higher costs

Compared to conventional construction, green buildings tend to be more expensive to build. According to Tagaza and Wilson, the capital cost of green buildings ranges from 10-25% higher than ordinary buildings. The higher costs are due to the complexity of the design and modeling costs required to integrate green construction into construction work.

b. Technical issues;

Green construction requires complex construction techniques and processes. If complexity is not handled properly then it can affect the process and deliverables. One of the main challenges in green construction is the technical difficulties experienced during the construction process because the design is more complicated compared to conventional construction.

c. Risk management and contract forms;

The successful development and implementation of green construction depends largely on the form of construction work contracts. The terms and forms of the contract used in green construction work must include detailed details of the design. This poses a problem if a complex design cannot be translated and implemented properly by the executor. In addition, green construction takes relatively longer than ordinary construction work.

d. Lack of mastery and understanding of green construction

Green construction is the biggest obstacle faced by construction service business actors because the structure is more complicated than the conventional technology that exists today. In addition, the lack of understanding and mastery of technical knowledge or expertise, products, materials, systems, or green technology designs that are still unfamiliar, is a challenge that must be resolved immediately.²²

In overcoming these obstacles and challenges, effective penal and non-penal policies are needed, namely:

a. Penal Policy

Carried out by containing regulations or implementing regulations on *sustainable development and sustainable construction which are contained in several provisions such as Article 15 of Law Number: 32 of 2009 concerning Environmental Protection and Management, states that the central and regional governments are required to make strategic environmental studies (KLHS) to ensure the principles of sustainable development have become the basis and integrated in the development of an area, including policies, plans or programs. Every policy and program formed by the government must be based on KLHS, to achieve sustainable development goals both in terms of social, economic, and environmental preservation.*²³

²¹ Indonesia, *Buku I Konstruksi Indonesia 2021: Era Baru Konstruksi Berkarya Menuju Indonesia Maju*.

²² Novianto Pambudi, *Faktor-Faktor Penghambat Dalam Penerapan Konstruksi Berkelanjutan Pada Proyek Konstruksi Indonesia : Studi Kasus Proyek Konstruksi Di Kota Makassar*.

²³ Ardhiwinda Kusumaputra, "Dekonstruksi Pembangunan Berkelanjutan Melalui Otonomi Daerah Dalam Pengelolaan Sumber Daya Air Pasca Omnibus Law," *LITRA: Jurnal Hukum Lingkungan, Tata Ruang, Dan Agraria* 1, no. 1 (2021): 45-58, <https://doi.org/10.23920/litra.v1i1.590>.

Article 1 Paragraph (2) of Law Number: 2 of 2017 concerning Construction Services states that the implementation of construction services is carried out based on the principles of honesty and justice, benefits, equality, harmony, balance, professionalism, independence, openness, partnership, security and safety, freedom, sustainable development, and environmental insight. Its implementation is regulated in several provisions such as: Government Regulation Number 14 of 2021 *jo* Regulation of the Minister of Public Works and Public Housing of the Republic of Indonesia Number 9 of 2021 concerning Guidelines for the Implementation of Sustainable Construction *jo* Presidential Regulation (Perpres) No 111 of 2022 concerning the Implementation of the Achievement of Sustainable Development Goals.

In addition, Article 3 of the Regulation of the Minister of Public Works and Public Housing Number: 21 of 2021 concerning Performance Assessment of Green Building Buildings, contains the principles of BGH implementation, including:

- 1) formulation of common goals, understanding and action plans;
- 2) reduction in the use of resources, both in the form of land, materials, water, natural resources and human resources (reduce);
- 3) reduction of waste generation, both physical and non-physical;
- 4) reuse of previously used resources (reuse);
- 5) use of recycled resources;
- 6) protection and management of the environment through conservation efforts;
- 7) mitigation of safety, health, climate change and disaster risks;
- 8) orientation to the life cycle and the achievement of desired quality;
- 9) technological innovation for continuous improvement.

b. Non-Penal Policy

To overcome various obstacles in implementing green construction, there needs to be a supporting policy or strategy. The strategy to implement sustainable construction including green construction is through education and upgrading insights and green construction technology. Hankinson and Breytenbach stated the strategy to implement green construction, namely:

- 1) increase knowledge of green construction;
- 2) support government policies and implement rules;
- 3) producing environmentally friendly alternative materials;
- 4) using tools that can assess objects for green construction;
- 5) education on the importance of green construction.²⁴

The green building (green construction) life cycle starts from the planning, construction, operation, maintenance, and renovation, until the demolition stages pay attention to various impacts. The benefits of implementing green construction in construction work include: saving and reducing the use of natural resources, maintaining the quality of air quality, considering the environment in the construction process, and not endangering the safety and health of workers and the surrounding community because the materials used are not dangerous. In addition, green construction buildings that are more effective and efficient are

²⁴ Gd Astawa Diputra, *Analisis Kendala Dalam Penerapan Green Construction Dan Strategi Untuk Mengatasinya* (Bali: Fakultas Teknik Universitas Udayana, 2015).

also a consideration in business models that consider aspects of cost and energy savings.²⁵

The category of green buildings in Indonesia is determined by the Green Building Council Indonesia (GBCI). The assessment system is called Greenship which consists of six categories, namely water conservation, land use, material efficiency and cycle, indoor air quality and comfort, and building environmental management. Here are some buildings that received the title of green building for their success in saving the use of electrical energy, the ability to save water and recycle among others: Gedung Kementerian Pekerjaan Umum (PUPR) Republik Indonesia, Menara BCA Jakarta, Sequis Center, Sampoerna Strategic Square, Pacific Place, Gedung Teraskota, L'Oreal Indonesia, Alamanda Tower, Gedung Duspapun dan Citra Maja Raya.²⁶

The community also needs to be involved in the implementation of development. Community involvement in development through participation in the process of preparing development plans, development processes, and post-development control. Sustainable development can be achieved if all stakeholders play an active role in that development. Several stages of participatory development carried out to achieve ideal development include the process of preparing community participation in planning, the role of community institutions in participatory development, and the implementation of participatory development.²⁷ With the implementation of the above policies, important aspects of sustainable construction have been fulfilled and make it closer to current and future environmental conservation efforts as one of the goals of sustainable *development*

4. Conclusion

Legal regulations for sustainable development and construction in Indonesia are regulated in several provisions including Law Number: 32 of 2009 concerning Environmental Protection and Management, Law Number: 2 of 2017 concerning Construction Services, Presidential Regulation (Perpres) No. 111 of 2022 concerning the Implementation of the Achievement of Sustainable Development Goals, PUPR Ministerial Regulation Number 9 of 2021 concerning Guidelines for the Implementation of Sustainable Construction and PUPR Ministerial Regulation Number: 21 of 2021 concerning Performance Assessment of Green Building Buildings.

Legal policies in facing obstacles and challenges of sustainable construction are penal policy: strengthening regulations as guidelines for sustainable development and construction, the government's obligation to make a strategic environmental assessment (KLHS) to ensure the principle of *sustainable development* becomes an integrated basis in every program or policy. Non-penal policies in the form of increasing resources through education and upgrading knowledge and green construction technology, using and creating alternative

²⁵ Kadek Sudiarta, Mayun -, and I Jaya, "Kajian Faktor-Faktor Green Construction Pada Proyek Konstruksi Gedung Di Kabupaten Badung," *Jurnal Ilmiah Teknik Sipil* 19, no. 2 (2015): 148-55, <https://ojs.unud.ac.id/index.php/jits/article/view/24146>.

²⁶ Kementerian Pekerjaan Umum dan Perumahan Rakyat Republik Indonesia, *op cit* 109.

²⁷ Septi Dwi Cahyani, "Strategi Pembangunan Berwawasan Lingkungan Kawasan Permukiman Segi Empat Emas Tunjungan Surabaya," *Mintakat: Jurnal Arsitektur* 18, no. 2 (2017): 126, <https://doi.org/10.26905/mintakat.v18i2.1692>.

materials that are environmentally friendly, participatory, or community participation in development, especially in planning and supervision.

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