

POLICIES AND LEGAL FRAMEWORK ON GREEN BUILDING DEVELOPMENT IN VIETNAM

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Abstract

Green buildings play an important role in advancing sustainable development objectives. Although green building development in Vietnam has made progress in recent years, the existing policy and legal framework remains fragmented and incomplete. Previous studies have mainly addressed development barriers, project management, and several green building assessment systems, while the establishment of a coherent policy and legal framework for green building development in Vietnam from a comparative legal perspective has not received sufficient attention. Therefore, this article addresses the following research question: what policy and legal reforms, informed by the experience of Singapore and Japan, could improve Vietnam's legal framework for green buildings? To answer this question, the article examines green building development in Vietnam, analyzes relevant policies and laws in Singapore and Japan, and identifies the key limitations of Vietnam's current framework. On that basis, the article proposes three main groups of reforms: (i) establishing a roadmap for the mandatory application of green building requirements to specified categories of buildings, (ii) establishing a unified national assessment and certification system, and (iii) developing clear, accessible, and predictable incentive mechanisms linked to green building certification and actual building performance, thereby contributing to the improvement of the policy and legal framework and promoting the sustainable development of green buildings in Vietnam.

Keywords: green building, sustainability, eco-friendly, environment, policy development, Vietnam

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With the rapid growth of industry, the world today has made significant contributions to the development and progress of society, bringing important benefits to people and opening the door for the sustainable development of the economy. Yet this rapid industrial expansion has also caused ecological and environmental crises, exacerbating environmental pollution, climate change, and global warming. To solve this problem, the green building (or eco-friendly building/green construction) movement is considered an effective response to climate change. This movement has expanded swiftly, quickly becoming an eco-friendly building revolution in the construction sector, and has spread to more than 100 countries, including Vietnam.¹ Nowadays, the green model is a symbol of sustainability and an important competitive advantage.

¹ Tạp chí Kiến trúc Việt Nam. (2021). Hội thảo “Xu hướng phát triển công trình xanh trong kiến trúc Việt Nam” [“Green building development trend in Vietnam's architecture” conference]. <https://kientrucvietnam.org.vn/hoi-thao-xu-huong-phat-trien-cong-trinh-xanh-trong-kien-truc-viet-nam/>

Still, the development of eco-friendly buildings in Vietnam seems slow, with only limited growth due to numerous challenges.² Thus, identifying and clarifying the limitations and shortcomings in policies and laws regulating green building development in Vietnam, and proposing solutions and recommendations to address them based on experiences from other countries, are vital and urgent in the current context.

1. Green building development trends in Vietnam

From a legal perspective, Article 3(7) of Decree No. 35/2026/ND-CP dated 22 January 2026 provides that: “A green building is a construction work designed, constructed, and operated in compliance with the criteria and standards on energy efficiency, resource conservation, the provision of comfort and quality of the indoor living environment, and the protection of the environment outside the building, in accordance with construction law.” From the above definitions, it can be understood that a green building is a building designed, built, and operated to minimise environmental impacts and optimise the use of natural resources. Green construction often integrates advanced design and technologies to save energy, use renewable energy sources, reduce waste, manage water effectively, and use sustainable building materials. The goal of green buildings is not only to create healthy, comfortable, and high-quality living conditions for people but also to contribute to environmental protection and to ensure a sustainable future for future generations. Green construction can be applied to both newly built and existing buildings to improve sustainability and meet environmental criteria.

With the values it brings, green building development is no longer only an option for developed countries but also a solution for developing countries like Vietnam to address many environmental challenges on a global scale. Up to now, Vietnam has had necessary policies and guidelines to promote eco-friendly building development activities, such as: the National Action Plan on Green Growth for the period 2014 – 2020; Vietnam’s renewable energy development strategy to 2030, vision to 2050; Target program to respond to climate change and green growth for the period 2016 – 2020, and so on.

In terms of the establishment of green building rating systems, Vietnam was not a late starter in the region. Singapore introduced Green

2 Nguyen, H.-T., Skitmore, M., Gray, M., Zhang, X., & Olanipekun, A. O. (2017). Will green building development take off? An exploratory study of barriers to green building in Vietnam. *Resources, Conservation and Recycling*, 127, 8–20. <https://doi.org/10.1016/j.resconrec.2017.08.012>

Mark in 2005,³ Malaysia launched the Green Building Index in 2009,⁴ Vietnam introduced LOTUS in 2010,⁵ and Thailand launched TREES in 2012.⁶ However, green building development in Vietnam progressed relatively slowly during its initial stage and has accelerated only in recent years. As of 31 March 2026, Vietnam had 828 green-certified buildings, with a total certified floor area of approximately 20.79 million square metres.⁷ In the 2025 ranking of countries and territories outside the United States by total LEED-certified floor area, Vietnam entered the top ten markets for the first time, ranking eighth with 100 projects covering approximately 2.60 million square metres.⁸ Notably, on 10 March 2026, the Model House – Prefabricated Timber Structure, jointly developed by the Institute for Building Science and Technology and Life Design Kabaya Co., Ltd., was awarded EDGE Zero Carbon certification after demonstrating that 100 per cent of its operational carbon emissions were neutralised through renewable energy; it was the first public-sector building in Vietnam to obtain this certification.⁹ These results indicate that Vietnam's green building market has undergone significant development, although it still needs to be further expanded to meet the sustainable development requirements of the construction industry.

Thus, in Vietnam, green building development has received considerable attention, focus, and investment in recent years; nevertheless, for various reasons, the actual results have not met expectations.

2. Policies and laws on green building development in Singapore and Japan

2.1. Singapore

Singapore was one of the early adopters of a national green building assessment system in Asia. The BCA Green Mark Certification Scheme, launched in 2005, has become the central policy instrument for assessing

3 Building and Construction Authority. (2026, July 19). Green Mark certification scheme. <https://www1.bca.gov.sg/sustainability/greenmark/>

4 Green Building Index. (2009, April 23). *The development of GBI Malaysia*. <https://www.green-buildingindex.org/Files/Resources/GBI%20Documents/20090423%20-%20The%20Development%20of%20GBI%20Malaysia.pdf>

5 Vietnam Green Building Council. (n.d.). *LOTUS rating systems*. <https://vgbc.vn/en/rating-systems/>

6 Thai Green Building Institute. (2017). *Thai's rating of energy and environmental sustainability for new construction and Major Renovation and Core and Shell Building*. TREES-NC/CS Version 1.1. https://tgbi.or.th/wp-content/uploads/2024/12/2017_03_TREES-CS-Eng.pdf

7 International Finance Corporation. (2026). *Overview of Vietnam green building market-Q1/2026*, p. 1. <https://edgebuildings.com/wp-content/uploads/2026/05/Official-VNGB.Q1.2026.pdf>

8 Verdinez, D. (2026, February 2). U.S. Green Building Council and Green Business Certification Inc. announce the top countries and regions for LEED outside the U.S. *Green Business Certification Inc.* <https://www.gbci.org/us-green-building-council-and-green-business-certification-inc-announce-top-countries-and-regions>

9 International Finance Corporation, *supra* note 7, p. 2.

and promoting the environmental performance of new and existing buildings.¹⁰ To achieve this, Singapore has implemented policies and laws to regulate this issue.

2.1.1. Policy

Since 2005, the Singapore's government has introduced a "green building" criteria plan, scoring the environmental design of construction projects by awarding four levels for designs that meet the standards.¹¹ This approach aims to promote and enhance the environmental protection awareness of operators, designers, and construction enterprises while expanding the philosophy of "sustainable construction". Singapore's green building criteria primarily assess the project's environmental impacts and performance. The basis for evaluation includes five aspects: energy saving, water saving, indoor environmental quality, environmental protection, and innovation. The Green Mark rating system consists of four certification levels: Certified, Gold, GoldPLUS, and Platinum¹². In particular, the Singapore Government has taken a leading role in promoting green building development. Accordingly, government projects are required to meet the applicable Green Mark requirements. Since 2009, projects with an area of 5,000 m² or more have been required to achieve the Green Mark Platinum rating, corresponding to energy savings of at least 30%. Existing government buildings with an air-conditioned gross floor area exceeding 10,000 m² were required to achieve the Green Mark GoldPLUS rating by 2020. The Singapore Government also requires publicly funded projects to satisfy the applicable green building certification criteria.¹³ Besides, Singapore promotes the adoption of green buildings through a regulatory and certification framework administered primarily by the Building and Construction Authority (BCA). Under this framework, the BCA develops and administers the Green Mark assessment criteria, reviews project submissions, and verifies compliance with applicable environmental sustainability requirements during the

10 Building and Construction Authority, *supra* note 3.

11 Bao Xay Dung. (2020, November 18). Xây dựng công trình xanh: Kinh nghiệm từ các quốc gia dẫn đầu. *Tạp chí Năng lượng Sạch Việt Nam*. [Building green buildings: Experience from leading countries. Vietnam Clean Energy Magazine]. <https://nangluongsachvietnam.vn/d6/vi-VN/news/Xay-dung-cong-trinh-xanh-Kinh-nghiem-tu-cac-quoc-gia-dan-dau--6-1959-8558>

12 Pham, N. D. (2024, October 18). Kinh nghiệm phát triển công trình xanh trên thế giới và đề xuất đẩy mạnh ở Việt Nam để đáp ứng mục tiêu phát thải ròng khí CO₂ = zero vào năm 2050. *Tạp chí điện tử Thiên nhiên và Môi trường* [Experience in developing green buildings around the world and proposals to promote them in Vietnam to meet the goal of net CO₂ emissions = zero by 2050. Vietnam Association for Conservation of Nature and Environment]. <https://www.vac-ne.org.vn/kinh-nghiem-phat-trien-cong-trinh-xanh-tren-the-gioi-va-de-xuat-day-manh-o-viet-nam-de-dap-ung-muc-tieu-phat-thai-rong-khi-co2-zero-vao-nam-2050/222322.html>

13 Lam, A. (2017, September 5). Chi phí nào ảnh hưởng khi chuyển hướng làm Công trình Xanh. [What costs are affected when shifting to green building?]. *Reatimes*. <https://reatimes.vn/chi-phi-nao-anh-huong-khi-chuyen-huong-lam-cong-trinh-xanh-20212611.htm>

design and construction stages and, where relevant, the operational stage of buildings.¹⁴ This comprehensive monitoring mechanism helps ensure that green buildings meet design, construction, and operational standards, comply with the Green Mark program and other regulations on energy efficiency and environmental protection, and prevent the use of substandard materials and technologies, thereby ensuring the quality and sustainability of the building. For existing buildings, the Singapore Government has introduced incentives for businesses to renovate buildings to meet green building standards, including a S\$100 million incentive scheme and low-interest loans, which have significantly reduced the financial hurdles for investors renovating existing buildings. For newly constructed green buildings that achieve the Green Mark Platinum rating, the Government will support up to 2% of the building area, with a maximum of 5,000 m². If a green building achieves the Green Mark GoldPLUS rating, the Government will support up to 1% of the building area, up to a maximum of 2,500 m².¹⁵ Moreover, the Singapore Government offers tax incentives to businesses and organisations that effectively renovate or build green buildings.¹⁶

To support green building development and certification, Singapore has established mechanisms relating to both building products and professional capacity. The voluntary Singapore Green Building Product certification scheme assesses green building products and materials, thereby supporting the selection of suitable products for green building projects. Products certified under this scheme are recognised within the BCA Green Mark framework and may contribute points towards a building's Green Mark rating.¹⁷ Singapore also operates the Green Mark Professional Certification Scheme to recognise the competence of professionals involved in the design, management, and operation of green buildings in accordance with the BCA Green Mark framework.¹⁸ These mechanisms both support the use of green building products and

14 Building and Construction Authority, *supra* note 3.

15 Truong, K. D., Truong, T. (2017). Kinh nghiệm phát triển công trình xanh của Singapore. *Ministry of Construction of Vietnam*. [trans: Singapore's experience in developing green buildings]. <https://moc.gov.vn/tl/tin-tuc/52291/kinh-nghiem-phat-trien-cong-trinh-xanh-cua-singapore.aspx>

16 Hwang, B. G., Tan, J. S. (2012). Green building project management: Obstacles and solutions for sustainable development. *Sustainable Development*, 20(5), pp. 335-349. <https://doi.org/10.1002/sd.492>; Hwang, B. G., Zhu, L., Wang, Y., & Cheong, X. (2017). Green building construction projects in Singapore: Cost premiums and cost performance. *Project Management Journal*, 48(4), pp. 67-79. <https://doi.org/10.1177/875697281704800406>

17 Singapore Green Building Council. (n.d.). *Singapore green building product certification*. <https://www.sgbc.sg/green-certifications/sbgp-certification>

18 Building and Construction Authority. (2026, May 18). Green Mark professional qualification scheme. <https://www1.bca.gov.sg/sustainability/green-professional/green-mark-professional-qualification-scheme/>

help ensure the professional capacity necessary for buildings to obtain and maintain Green Mark certification.¹⁹

2.1.2. Law

Singapore has established a relatively clear legal framework to promote green building development. Within this framework, the 1989 Building Control Act²⁰ serves as the general statutory foundation for the promulgation and enforcement of environmental sustainability requirements applicable to buildings. On that basis, the Building Control (Environmental Sustainability) Regulations 2008²¹ directly impose legal obligations on buildings within their scope, including the requirement to comply with the minimum environmental sustainability standard and to submit compliance assessment results. These requirements are further elaborated in the Code for Environmental Sustainability of Buildings (Edition 4.0, 2021)²², which sets out the relevant technical and administrative criteria and adopts a compliance assessment methodology largely based on the BCA Green Mark framework.²³ It may therefore be observed that, in Singapore, green building development is not merely encouraged at the policy level, but is also supported by a relatively robust legal mechanism comprising a statutory foundation, binding legal obligations, and specific technical standards.²⁴

Moreover, Singapore also has the Energy Conservation Act,²⁵ enacted in 2012, focusing on increasing energy efficiency and reducing greenhouse gas emissions. Although it does not directly regulate green building development, the Energy Conservation Act has contributed to providing a legal framework and specific requirements to promote green buildings, especially in saving energy and minimizing environmental impacts. Specifically, the 2012 Energy Conservation Act requires construction, especially large commercial and industrial buildings, to comply with energy conservation regulations and implement specific

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- 19 Li, Y. Y., Chen, P.-H., Chew, D. A. S., Teo, C. C., & Ding, R. G. (2011). Critical project management factors of AEC firms for delivering green building projects in Singapore. *Journal of Construction Engineering and Management*, 137(12), pp. 1153-1163. [https://doi.org/10.1061/\(ASCE\)CO.1943-7862.0000370](https://doi.org/10.1061/(ASCE)CO.1943-7862.0000370); Hwang, B. G., & Ng, W. J. (2013). Project management knowledge and skills for green construction: Overcoming challenges. *International Journal of Project Management*, 31(2), pp. 272-284. <https://doi.org/10.1016/j.jiproman.2012.05.004>
 - 20 The 1989 Building Control of Singapore.
 - 21 The 2008 Building Control (Environmental Sustainability) Regulations of Singapore 2008.
 - 22 Building and Construction Authority. (2021, September). Code for Environmental Sustainability of Buildings (Edition 4.0).
 - 23 *Ibid.*
 - 24 Zhang, D., Tu, Y., & He, Y. (2024). How a mandate of minimum green building standards influences green building adoption in the private housing sector: Evidence from Singapore during 2005–2019. *Cities*, 148(104893). <https://doi.org/10.1016/j.cities.2024.104893>
 - 25 Article 11 of the 2012 Energy Conservation of Singapore.

measures to minimize energy consumption. Owners and operators of large buildings must monitor and report on energy use; provide information on energy consumption and energy efficiency improvements that have been implemented; and have an energy measurement and reporting system to ensure compliance with energy efficiency requirements. The 2012 Energy Conservation Act also encourages the use of energy-saving technologies and equipment in buildings, which includes the use of energy-saving lighting equipment, efficient heating, ventilation, and air-conditioning technology, and automatic systems that adjust energy depending on environmental conditions and usage. Furthermore, the 2012 Energy Conservation Act also provides guidelines and standards for building design, such as requirements for energy savings during the construction and operation of buildings. These requirements include the use of building materials with good insulation, architectural design to minimize energy use, as well as improving the energy efficiency of building systems. In summary, although the 2012 Energy Conservation Act does not directly regulate green building development, it has created a legal framework to promote energy efficiency in buildings, which plays an important role in the development of green buildings in Singapore.

2.2. Japan

Japan is one of the countries that has implemented many effective policies to promote the development of green buildings to minimize the environmental impact of the construction industry, save energy, and create a sustainable living environment.

2.2.1. Policy

Japan has established the Comprehensive Assessment System for Building Environmental Efficiency (CASBEE), an important tool in Japan's green building development policy²⁶. The CASBEE system was developed by the Japan Association of Building Disaster Prevention and is considered a key tool for implementing and promoting green building policies in Japan. Accordingly, CASBEE provides a detailed, comprehensive assessment standard system for green buildings, covering many important criteria, from energy efficiency and resource management to environmental impact.²⁷ This system evaluates not only

26 Japan Sustainable Building Consortium & Institute for Building Environment and Energy Conservation. (n.d.). Comprehensive assessment system for built environment efficiency (CASBEE). <https://www.ibecs.or.jp/CASBEE/english/index.htm>

27 Le, N. Q., Dao, T. T. (2017). Xây dựng cơ sở dữ liệu về công trình xanh và đô thị xanh - kinh nghiệm của Nhật Bản về hệ thống đánh giá công trình xanh. *Viện kiến trúc quốc gia* [trans: Building a database on green buildings and green cities - Japan's experience in green building rating systems]. *National Institute of Architecture*. <https://vienkientrucquocgia.gov.vn/xay-dung-co-so-du-lieu-ve-cong-trinh-xanh-va-do-thi-xanh-kinh-nghiem-cua-nhat-ban-ve-he-thong-danh-gia-cong-trinh-xanh/>

energy efficiency but also the quality of living space and the impact on the external environment, thereby helping to achieve a balance between green buildings and quality of life. Thanks to the comprehensive assessment criteria system, CASBEE ensures that buildings not only comply with some basic requirements but also fully meet strict environmental standards. In addition, CASBEE also provides a basis for the Japanese government's incentive policies for green building development such as tax incentives and financial support for green-certified buildings, which helps attract more investors to green building projects. Using CASBEE, the Japanese government can identify, monitor, evaluate, and measure the effectiveness of green building policies, thereby adjusting and developing new policies to promote the green building industry.²⁸ Furthermore, CASBEE also helps raise awareness among the community, investors, and stakeholders in the construction industry about the importance of green buildings and sustainable development because this system not only promotes the construction of green buildings but also creates a culture of environmental responsibility and commitment, encouraging long-term environment-friendly construction practices.²⁹ By providing specific assessment standards, CASBEE has encouraged building developers and construction companies to adopt advanced technologies and innovations in energy saving and environmental protection by applying green technologies in construction, such as renewable energy systems, smart energy management systems, and sustainable building materials.³⁰ Thus, it can be seen that CASBEE is a core policy tool to help Japan promote green building development by providing comprehensive assessment standards, encouraging investor participation, supporting the implementation of sustainable development policies, and pushing for technological innovation. With its flexible assessment capabilities and encouragement of environment-friendly construction practices, CASBEE not only helps Japan realize its green building development goals but also creates a solid foundation for the country to continue pursuing sustainable development in the future.

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- 28 Kawakubo, S., Ikaga, T., Murakami, S., & Asami, Y. (2013). Environmental performance assessment of municipalities with the "CASBEE-City" tool. *Journal of Environmental Engineering (Transactions of AIJ)*, 78(683), pp. 63-72. <https://doi.org/10.3130/aije.78.63>
 - 29 Sasatani, D., Bowers, T., Ganguly, I., & Eastin, I. L. (2015). Adoption of CASBEE by Japanese house builders. *Journal of Green Building*, 10(1), pp. 186-201. <https://doi.org/10.3992/jgb.10.1.186>
 - 30 Takada, H., Yoshida, Y., Kawakubo, S., & Yamaguchi, A. (2021). Economic impact of environmental efficiency on sales price and used transaction price of apartment buildings: Empirical analysis using the assessment data of CASBEE Yokohama. *Japan Architectural Review*, 4(2), pp. 313-319. <https://doi.org/10.1002/2475-8876.12211>

Furthermore, to promote green building development, the Japanese Government has introduced tax incentives for housing that meets specified energy-efficiency or low-carbon standards, as well as financial support programmes for the construction and renovation of energy-efficient and net-zero-energy buildings. These measures help reduce the additional costs associated with environmentally sustainable construction and renovation and encourage investment in energy-saving and renewable-energy technologies³¹. Along with that, the Japanese government provides loans with preferential interest rates for green building projects, especially projects using renewable energy or energy-saving technologies. Large-scale green and highly energy-efficient buildings can receive financial support from state banks. Old buildings can receive financial support and tax deductions for the cost of renovating buildings to meet green standards according to CASBEE criteria or to use energy more efficiently.³² Japan's financial policies and tax incentives for green buildings not only help reduce the financial burden on projects but also encourage businesses and individuals to invest in green building development.³³ In addition to financial incentive policies, Japan also places considerable emphasis on supporting project owners and professionals throughout the construction, renovation, and green building certification process. Specifically, the Japan Sustainable Building Consortium provides CASBEE assessment tools and software,³⁴ while the Institute for Built Environment and Carbon Neutral for SDGs provides materials and question-and-answer guidance on CASBEE assessment methods, organises training courses and examinations for assessors, and operates both the assessor registration system and the system for certifying CASBEE assessment results.³⁵ At the same time, IBECs and accredited certification bodies provide points of contact for consultation and guide project owners on the preparation of

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- 31 Ministry of Land, Infrastructure, Transport and Tourism of Japan. (2026, June). 住宅ローン減税 [*Housing Loan Tax Deduction*]. https://www.mlit.go.jp/jutakukentiku/house/jutakukentiku_house_tk2_000017.html; Ministry of the Environment, Government of Japan. (2026, June). 支援制度 [Support Programs]. *ZEB Portal*. <https://www.env.go.jp/earth/zeb/hojo/index.html>
 - 32 Wang, Q., Gao, W., Su, Y., & Zhang, Y. (2024). A comparative study of the latest editions of China-Japan-US green building evaluation standards. *Buildings*, 14(11):3698. <https://doi.org/10.3390/buildings14113698>
 - 33 Wong, S.-C., & Abe, N. (2014). Stakeholders' perspectives of a building environmental assessment method: The case of CASBEE. *Building and Environment*, 82, pp. 502-516. <https://doi.org/10.1016/j.buildenv.2014.09.007>
 - 34 Japan Sustainable Building Consortium. *CASBEE for buildings (new construction)*. https://www.jsbc.or.jp/research-study/casbee/tools/cas_nc.html
 - 35 Institute for Built Environment and Carbon Neutral for SDGs. *CASBEE (Comprehensive Assessment System for Built Environment Efficiency)*. <https://www.ibecs.or.jp/CASBEE/>; Institute for Built Environment and Carbon Neutral for SDGs. *CASBEE accredited professional*. <https://www.ibecs.or.jp/CASBEE/english/accreditedprofessionalE.htm>; Institute for Built Environment and Carbon Neutral for SDGs. *CASBEE certification system*. <https://www.ibecs.or.jp/CASBEE/english/certificationE.htm>

application documents and other matters relating to CASBEE certification procedures.³⁶ Through these activities, project owners and consultants are better equipped to understand and apply green building assessment criteria, select appropriate design or renovation solutions, and prepare assessment results and certification documentation in accordance with CASBEE requirements, thereby contributing to improved assessment quality and promoting the wider application of CASBEE in green building development.³⁷

In addition, the Japanese Government has integrated green-oriented building development into its policies on low-carbon urban development and green transformation. Accordingly, urban planning and redevelopment are pursued in a coordinated manner through groups of measures relating to urban structure and transport, energy use, and the development of green spaces.³⁸ At the same time, the Government encourages the renovation of existing housing and buildings to improve energy efficiency, including support for the installation of insulated windows and energy-efficient equipment.³⁹ Through these measures, green building development policy is linked to the objectives of reducing emissions and improving the quality of the urban environment.

2.2.2. Law

At the national level, Japan does not have a separate statute comprehensively governing green buildings. Instead, the relevant legal issues are regulated through various sector-specific statutes, most notably legislation on improving the energy consumption performance of buildings and recycling construction materials. In particular, the Act on the Improvement of Energy Consumption Performance of Buildings 2015⁴⁰ establishes a legal framework for improving the energy consumption performance of buildings and promoting the installation of

36 Institute for Built Environment and Carbon Neutral for SDGs. CASBEE kenchiku hyōka ninshō [CASBEE building assessment certification]. https://www.ibecs.or.jp/CASBEE/certification/building_certification.html; Institute for Built Environment and Carbon Neutral for SDGs. CASBEE hyōka ninshō nintei kikan ichiran [List of accredited CASBEE assessment certification bodies]. https://www.ibecs.or.jp/CASBEE/certification/certification_org.htm

37 Institute for Built Environment and Carbon Neutral for SDGs. (2023). *CASBEE brochure 2024*, pp. 3–6. https://www.ibecs.or.jp/CASBEE/english/document/CASBEE_brochure_2024.pdf; Institute for Built Environment and Carbon Neutral for SDGs, *supra* note 40.

38 Ministry of Land, Infrastructure, Transport and Tourism of Japan. *Outline of low carbon city development*. https://www.mlit.go.jp/toshi/city_plan/eco-city-2.html; Ministry of Land, Infrastructure, Transport and Tourism of Japan. *Green transformation for sustainable urban development*. https://www.mlit.go.jp/en/toshi/kankyo/green_transformation.html

39 Agency for Natural Resources and Energy. (2025). *The 7th strategic energy plan*, Ministry of Economy, Trade and Industry. p. 28.

40 Japan Act on the Improvement of Energy Consumption Performance of Buildings (Act No. 53 of 2015).

renewable energy utilisation equipment in buildings.⁴¹ Under this Act, building activities falling within its scope must comply with the applicable building energy consumption performance standards; in cases subject to a conformity assessment, compliance with those standards must be verified before construction commences.⁴² The Act also allows project owners to apply for certification of a plan to improve a building's energy consumption performance where the building satisfies requirements exceeding the mandatory level, while excluding from the gross floor area used to calculate the floor-area ratio any additional floor space necessary for implementing measures to improve energy performance.⁴³ These provisions both ensure a minimum level of energy performance and encourage project owners to further improve the energy performance of buildings, thereby contributing to the fulfilment of an important green building requirement. In addition, the Construction Material Recycling Act 2000⁴⁴ seeks to promote the efficient use of resources, reduce construction waste, and ensure the proper treatment of waste by encouraging the selective dismantling and recycling of construction materials.⁴⁵ The Act requires construction businesses to endeavour to limit waste generation through the appropriate selection of materials, building designs, and construction methods, while also requiring construction businesses and project owners to promote the use of materials derived from recycling activities.⁴⁶ For construction works falling within the scope of the Act, demolition must be carried out by sorting construction material waste according to material type, and contractors are required to recycle waste generated from concrete, construction materials consisting of concrete and iron, wood, and asphalt concrete, except where the law permits waste-volume-reduction measures to be undertaken in place of recycling.⁴⁷ Thus, although Japan has not established a unified legal framework specifically governing green buildings, its national legislation directly regulates two important aspects of green building development:

41 Article 1 of the 2015 Act on the Improvement of Energy Consumption Performance of Buildings of Japan's.

42 Article 10(1), Article 11(1) of the 2015 Act on the Improvement of Energy Consumption Performance of Buildings of Japan's.

43 Article 29(1), Article 30(1), Article 35 of the 2015 Act on the Improvement of Energy Consumption Performance of Buildings of Japan's.

44 Enforcement Order of the Construction Material Recycling Act of Japan's (Cabinet Order No. 495 of 2000).

45 Article 1 of the 2000 Construction Material Recycling Act of Japan's.

46 Article 5(1)-(2), Article 6 of the 2000 Construction Material Recycling Act of Japan's.

47 Article 9(1)-(3), Article 16 of the 2000 Construction Material Recycling Act of Japan's; Article 1 of the Order for Enforcement of the 2000 Construction Material Recycling Act of Japan's.

improving energy performance and ensuring the efficient use of resources and materials in construction activities.

In summary, the above policies and laws have played an important role in promoting the development of green buildings in Japan, helping it become a leading country in this field.

3. The current state of Vietnamese policies and laws on green building development

Vietnam has established a legal basis for promoting green building development through its legislation on energy efficiency and construction. Article 15 of the Law on Economical and Efficient Use of Energy requires the application of energy-saving measures in construction, including climate-responsive planning and architectural design, the use of energy-efficient and non-fired building materials, and compliance with relevant technical standards and regulations.⁴⁸ More recently, Article 11(4) of the 2025 Construction Law expressly provides for State mechanisms and incentives to support the research, development, and use of green and environmentally friendly building materials, as well as the construction and certification of green, smart, energy- and resource-efficient buildings that meet environmental protection requirements.⁴⁹

Although green building development in Vietnam has made positive progress, as discussed above, the legal framework governing this field remains incomplete and insufficiently coherent. The existing provisions have not yet established a sufficiently comprehensive and clear legal basis for promoting the development, assessment, and certification of green buildings. These principal limitations are reflected in the following respects:

First, Vietnamese law has not clearly identified the categories of buildings that must be subject to a comprehensive set of green building criteria and certification mechanism. Specifically, Article 11(4) of the 2025 Construction Law merely provides for encouragement and incentives for the construction and certification of green buildings, without imposing mandatory requirements on any specific category of buildings. Meanwhile, Articles 15 and 16 of the Law on Economical and Efficient Use of Energy, together with QCVN 09:2017/BXD,⁵⁰ establish mandatory energy-use requirements for certain types of buildings determined

48 Article 15 of the 2025 Law on Economical and Efficient Use of Energy of Vietnam (Consolidated Document No. 38/VBHN-VPQH).

49 Article 11(4) of the 2025 Construction Law of Vietnam (Law No. 135/2025/QH15).

50 Circular No. 15/2017/TT-BXD promulgating the National Technical Regulation on energy-efficient buildings (QCVN 09:2017/BXD) of the Ministry of Construction of Vietnam.

by their scale and functions. However, these provisions focus only on energy efficiency and have not established a unified set of green building criteria that comprehensively covers matters such as water use, materials, waste management, and indoor environmental quality. Accordingly, the law still does not provide a roadmap for the mandatory application of a comprehensive set of green building criteria and certification mechanism based on building scale, function, sources of investment capital, or degree of environmental impact. Consequently, in practice, developers' registration for green building assessment and certification remains largely voluntary, thereby limiting the expansion of this type of building.⁵¹

Second, although Vietnam has initially developed several standards and technical regulations related to green buildings, it has not yet established a unified and comprehensive system for assessing and certifying this type of building. At present, QCVN 09:2017/BXD applies to certain categories of energy-efficient buildings and will be replaced by QCVN 04-3:2026/BXD⁵² from 1 February 2027. However, these technical regulations primarily govern energy-efficiency requirements, which constitute only one of the many criteria applicable to green buildings, and therefore cannot be regarded as a comprehensive set of criteria for green building assessment and certification. In practice, several green building assessment and certification systems are currently applied in Vietnam, including LOTUS, LEED, EDGE and Green Mark.⁵³ Among them, LOTUS, developed by the Vietnam Green Building Council, was the first green building rating system designed with due regard to Vietnam's construction regulations, climatic conditions, and construction practices.⁵⁴ In addition, the Project on Energy Efficiency Improvement in Commercial and High-Rise Residential Buildings supported the development of 11 standards concerning the energy-efficiency properties of building materials and the assessment of buildings' energy performance.⁵⁵ Nevertheless, the

51 Chan, D. H. (2024, September 26). Diễn đàn “Thúc đẩy phát triển công trình xanh tại Việt Nam: Kinh nghiệm và giải pháp” [trans: Forum “Promoting green building development in Vietnam: Experiences and solutions”]. *The portal of Ministry of Construction of Vietnam*. <https://moc.gov.vn/vn/tin-tuc/1342/84402/dien-dan-thuc-day-phat-trien-cong-trinh-xanh-tai-viet-nam-kinh-nghiem-va-giai-phap.aspx>

52 Draft Circular promulgating the National Technical Regulation on civil construction works-Part 3: Energy-efficient buildings of Vietnam (Draft QCVN 04-3:2026/BXD).

53 Trieu, P. (2025, October 21). Công trình xanh – Xu hướng tất yếu cho đô thị Việt Nam và tầm nhìn từ doanh nghiệp tiên phong [trans: Green buildings – An inevitable trend for Vietnamese cities and the vision of a pioneering enterprise]. *The portal of Ministry of Construction of Vietnam*. <https://moc.gov.vn/vn/tin-tuc/1340/88931/cong-trinh-xanh---xu-huong-tat-yeu-cho-do-thi-viet-nam-va-tam-nhin-tu-doanh-nghiep-tien-phong.aspx>

54 Vietnam Green Building Council. *Green building in Vietnam*. <https://vgbc.vn/en/green-building/>

55 United Nations Development Programme. (2021, September 16). *Virtual training workshop on strengthening capacity on design appraisal and acceptance of energy efficient buildings*. <https://www.undp.org/vietnam/news/virtual-training-workshop-strengthening-capacity-design-appraisal-and-acceptance-energy-efficient-buildings>

above-mentioned standards, technical regulations, and rating systems are predominantly applied on a voluntary basis and have not yet been integrated into a unified legal framework. Consequently, Vietnam still lacks comprehensive provisions on the entities and buildings subject to the framework, assessment criteria, certification procedures, competent certification bodies, recognition of certification results, and mechanisms for monitoring green buildings during their operation and use.

Third, although incentives for green buildings have been recognised in law, they have not yet been sufficiently specified to facilitate their practical implementation. Article 11(4) of the 2025 Construction Law merely establishes a general principle concerning incentives and preferential treatment for the construction and certification of green buildings. Meanwhile, Article 41(2)–(4) of the Law on Economical and Efficient Use of Energy provides for preferential loans, financial support from funds, green credit, green bonds, and technical assistance for energy-saving and emission-reduction projects, while Article 41a establishes the legal basis for the Fund for the Promotion of Economical and Efficient Energy Use. However, these provisions do not separately specify the eligibility conditions, levels of support, access procedures, or the relationship between green building certification and each form of incentive. Article 20 of Decree No. 30/2026/ND-CP⁵⁶ only provides for the Fund's sources of capital, whereas its establishment, organisation and operation, financial mechanism, and charter capital are to be decided by the Prime Minister. Consequently, the existing incentive framework does not provide green building developers with the necessary degree of clarity and predictability.

4. Proposals to improve the efficiency of green building development in Vietnam

In light of the limitations identified in Section 3 and the experience of Singapore and Japan, Vietnam should move away from fragmented and predominantly voluntary measures towards a coherent and integrated policy and legal framework, in which mandatory requirements, certification mechanisms, and incentive policies are designed to reinforce one another.

First, to address the lack of a mandatory roadmap, the law should establish a roadmap for identifying categories of buildings that must comply with mandatory green building criteria. Priority should

⁵⁶ Decree No. 30/2026/ND-CP detailing several articles of, and measures for organizing and guiding the implementation of, the Law on Economical and Efficient Use of Energy, Government of Vietnam.

initially be given to public buildings and state-funded projects, large-scale commercial and high-rise buildings, energy-intensive buildings, and buildings undergoing major renovation. Singapore's experience demonstrates that minimum mandatory requirements can be combined with higher voluntary certification levels, thereby both ensuring compliance and encouraging project owners to further improve building performance.⁵⁷

Second, given the absence of a unified assessment and certification system, Vietnam should establish a unified national assessment and certification system covering energy and water use, materials, waste management, indoor environmental quality, and operational performance. This system should clearly regulate assessment procedures, authorised certification bodies, the legal validity of certification results, public disclosure of information, and post-occupancy inspections. Japan's CASBEE model provides relevant experience in linking assessment throughout the design, construction, operation, and renovation stages of a building.⁵⁸

Third, to overcome the shortcomings of the current incentive framework, incentive mechanisms should be readily accessible and predictable, with clear provisions on eligibility conditions, levels of support, and implementation procedures. Preferential credit, tax and fee incentives, technical assistance, and renovation support should be linked to certification status and verified actual performance. Priority should be given to high-performance buildings and existing buildings in order to reduce upfront investment costs and sustain long-term environmental benefits.⁵⁹

Conclusion

Green building development in Vietnam has made notable progress, but its policy and legal framework remains fragmented, incomplete, and largely voluntary. The experience of Singapore and Japan shows that effective green building development requires a combination of clear

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- 57 Nguyen, T. L. P., Do, M. A., Pham, T. M. K., Nguyen, T. P. L., Tran, T. T., & Bui, T. N. (2026). Development of green buildings in Vietnam: International experience and policy implications. *Journal of Materials & Construction*, 16(01), pp. 151-158. <https://doi.org/10.54772/jomc.v16i01.1323>
 - 58 Hwang & Tan, *supra* note 16; Murakami, S., Iwamura, K., Sakamoto, Y., Yashiro, T., Bogaki, K., Sato, M., Ikaga, T., & Endo, J. (2004). CASBEE: Comprehensive Assessment System for Building Environmental Efficiency. *AIJ Journal of Technology and Design*, 10(20), pp. 199-204. <https://doi.org/10.3130/aijt.10.199>
 - 59 Nguyen, H.-T., Olanipekun, A. O., Skitmore, M., & Tyvimaa, T. (2019). Motivations for green building development in Vietnam. In P. X. W. Zou, J. Sanjayan, M. Alam, & X. Xu (Eds.), *Proceedings of 22nd International Conference on Advancement of Construction Management and Real Estate, CRIOCM 2017* (pp. 459-466). CRIOCM 2017 Organising Committee; Hwang & Tan, *supra* note 16.

mandatory requirements, comprehensive assessment and certification mechanisms, and appropriate incentive policies. Drawing on these lessons, Vietnam should establish a roadmap for the mandatory application of green building requirements to specified categories of buildings, develop a unified national assessment and certification system, and improve incentive mechanisms by making them clearer, more accessible, and linked to certification and actual building performance. These reforms would contribute to a more coherent and effective framework for promoting sustainable green building development in Vietnam. ●

Reference

- [1] Agency for Natural Resources and Energy. (2025). *The 7th strategic energy plan*, Ministry of Economy. Trade and Industry
- [2] Green Building Index. (2009, April 23). *The development of GBI Malaysia*
- [3] Hwang, B. G., Ng, W. J. (2013). Project management knowledge and skills for green construction: Overcoming challenges. *International Journal of Project Management*, 31(2), 272-284. <https://doi.org/10.1016/j.ijproman.2012.05.004>
- [4] Hwang, B. G., Tan, J. S. (2012). Green building project management: Obstacles and solutions for sustainable development. *Sustainable Development*, 20(5), pp. 335-349. <https://doi.org/10.1002/sd.492>
- [5] Hwang, B. G., Zhu, L., Wang, Y., & Cheong, X. (2017). Green building construction projects in Singapore: Cost premiums and cost performance. *Project Management Journal*, 48(4), pp. 67-79. <https://doi.org/10.1177/875697281704800406>
- [6] Kawakubo, S., Ikaga, T., Murakami, S., & Asami, Y. (2013). Environmental performance assessment of municipalities with the “CASBEE-City” tool. *Journal of Environmental Engineering (Transactions of AIJ)*, 78(683), pp. 63-72. <https://doi.org/10.3130/aije.78.63>
- [7] Li, Y. Y., Chen, P.-H., Chew, D. A. S., Teo, C. C., & Ding, R. G. (2011). Critical project management factors of AEC firms for delivering green building projects in Singapore. *Journal of Construction Engineering and Management*, 137(12), pp. 1153-1163. [https://doi.org/10.1061/\(ASCE\)CO.1943-7862.0000370](https://doi.org/10.1061/(ASCE)CO.1943-7862.0000370)
- [8] Murakami, S., Iwamura, K., Sakamoto, Y., Yashiro, T., Bogaki, K., Sato, M., Ikaga, T., & Endo, J. (2004). CASBEE: Comprehensive assessment system for building environmental efficiency. *AIJ Journal of Technology and Design*, 10(20), pp. 199-204. <https://doi.org/10.3130/aijt.10.199>
- [9] Nguyen, H.-T., Olanipekun, A. O., Skitmore, M., & Tyvimaa, T. (2019). Motivations for green building development in Vietnam. In P. X. W. Zou, J. Sanjayan, M. Alam, & X. Xu (Eds.), *Proceedings of 22nd International Conference on Advancement of Construction Management and Real Estate*, CRIOCM 2017 (pp. 459-466). CRIOCM 2017 Organising Committee

- [10] Nguyen, H. T., Skitmore, M., Gray, M., Zhang, X., & Olanipekun, A. O. (2017). Will green building development take off? An exploratory study of barriers to green building in Vietnam. *Journal Resources, Conservation, and Recycling*, 127(1), pp. 8-20
- [11] Nguyen, T. L. P., Do, M. A., Pham, T. M. K., Nguyen, T. P. L., Tran, T. T., & Bui, T. N. (2026). Development of green buildings in Vietnam: International experience and policy implications. *Journal of Materials & Construction*, 16(01), pp. 151-158. <https://doi.org/10.54772/jomc.v16i01.1323>
- [12] Sasatani, D., Bowers, T., Ganguly, I., & Eastin, I. L. (2015). Adoption of CASBEE by Japanese house builders. *Journal of Green Building*, 10(1), pp. 186-201. <https://doi.org/10.3992/jgb.10.1.186>
- [13] Takada, H., Yoshida, Y., Kawakubo, S., & Yamaguchi, A. (2021). Economic impact of environmental efficiency on sales price and used transaction price of apartment buildings: Empirical analysis using the assessment data. *Japan Architectural Review*, 4(1), pp. 160-168. <https://doi.org/10.1002/2475-8876.12211>
- [14] Thai Green Building Institute. (2017). *Thai's rating of energy and environmental sustainability for new construction and major renovation and Core and Shell Building*. TREES-NC/CS Version 1.1
- [15] Verdinez, D. (2026, February 2). U.S. Green Building Council and Green Business Certification Inc. announce the top countries and regions for LEED outside the U.S. Green Business Certification Inc
- [16] Wang, Q., Gao, W., Su, Y., & Zhang, Y. (2024). A comparative study of the latest editions of China-Japan-US green building evaluation standards. *Buildings*, 14(11). <https://doi.org/10.3390/buildings14113698>
- [17] Wong, S.-C., & Abe, N. (2014). Stakeholders' perspectives of a building environmental assessment method: The case of CASBEE. *Building and Environment*, 82, pp. 502-516. <https://doi.org/10.1016/j.buildenv.2014.09.007>
- [18] Zhang, D., Tu, Y., & He, Y. (2024). How a mandate of minimum green building standards influences green building adoption in the private housing sector: Evidence from Singapore during 2005-2019. *Cities*, 148(104893). <https://doi.org/10.1016/j.cities.2024.104893>

Author Contribution

The author contributed to the study conception and design. The author read and approved the final manuscript.

Declarations

Conflict of Interest: The author declare no competing interests.

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