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Review Paper

Green buildings in Vietnam: development process, global principles, and future trends

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ABSTRACT

Vietnam ranks as one of the most climate-affected countries globally, prompting an urgent need for sustainable development within its highly impactful construction sector. Since the mid-2000s, Vietnam has been advancing its green building movement, significantly marked by the establishment of the Vietnam Green Building Council in 2007. While the adoption of green building practices initially lagged behind regional peers like Singapore, recent years have witnessed rapid sector expansion. By 2023, the market experienced a significant surge, with certifications more than doubling from the previous year, driven by increasing market demand, multinational sustainability mandates, and international frameworks such as the European Union's Carbon Border Adjustment Mechanism. Currently, four primary rating systems: LEED, LOTUS, EDGE, and Green Mark, dominate the Vietnamese market, covering nearly two million square meters of certified gross floor area.

Despite this promising momentum, significant progress is still required to meet both national targets and global commitments, including the climate pledge Vietnam announced at COP26. The transition of green building from a voluntary choice to a "market necessity" is heavily constrained by institutional and financial bottlenecks, such as a shortage of trained experts, perceived high upfront investment costs, and market confusion surrounding the various coexisting certification systems.

To navigate these challenges, this paper explores the green building landscape in Vietnam during the 2020s and systematically aligns it with the World Green Building Council's seven global policy principles for 2050: Carbon, Resilience, Circularity, Water, Biodiversity, Health, and Equity. Given Vietnam's high vulnerability to climate change, the study emphasizes that principles centered on "Resilience" and "Water" conservation are particularly fundamental for local urban planning. Ultimately, thiss principles-based framework serves as a strategic roadmap to help stakeholders make informed investment decisions and accelerate the transition toward a resilient, net-zero built environment.

Key words: green building, green building standards, sustainable development

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OVERVIEW

Vietnam ranks as the sixth most climate-affected country globally, according to German Watch's Long-Term Climate Risk Index[1]. In response, the government, organizations, stakeholders, and citizens have united to address this pressing issue. The 2015 UN Sustainable Development Agenda sets 17 global goals to eradicate poverty, protect the planet, and promote prosperity. In alignment with this, Vietnam has adopted various national sustainability strategies, defining 115 detailed targets out of the 169 outlined in the agenda[2].

Among the sectors contributing most significantly to environmental degradation, the construction industry stands out due to its considerable impact on resource consumption, emissions, and public health. As a result, making the sector more sustainable has become a national priority. In recent years, Vietnam has experienced a notable increase in green building initiatives, positioning them as a key solution to reducing the environmental footprint of the construction industry and promoting sustainable urban development.

Green buildings have emerged as a transformative force in the construction and architecture sectors, aligning with the United Nations' Sustainable Development Goals. A green building is designed, constructed, and operated to minimize negative impacts on human health and the environment while conserving natural resources and enhancing quality of life. Beyond their environmental benefits, green buildings contribute to social and economic progress within the industry, thereby supporting broader global sustainability efforts. As public awareness of climate change grows, the demand for green buildings is rising rapidly. Additionally, the economic advantages of energy efficiency - one of green building's core principles - serve as a major driver of its widespread adoption.

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Applying green building standards to real estate development offers six key benefits that investors and stakeholders should consider. First, it provides access to global knowledge on sustainable development, fostering learning and international collaboration. Second, it facilitates the transfer of expertise and technology, ensuring sustainable construction management across the value chain - from investors to contractors, property managers, and ultimately, residents - creating a green community. Furthermore, green buildings enhance health and environmental protection, increase long-term property value, promote shared community values, and contribute to a greener economy and sustainable GDP growth. These benefits align with John Elkington's sustainability model, which balances economic, social, and environmental priorities [2].

To classify a building as green, various rating systems have been established, integrating key sustainability factors. Green building councils-non-profit organizations dedicated to advancing sustainable construction - set clear performance and design benchmarks that establish a shared language for best practices. By adhering to these standards, building projects can seek certification, which offers an objective and credible assessment of their environmental performance. This certification not only validates a building's green credentials but also enhances its transparency and market appeal.

Green building councils play a crucial role in driving market transformation toward sustainable practices. They offer objective, independent information and green certification, helping to translate sustainability into tangible market value. As non-profit organizations or NGOs, they operate without profit-driven motives or external influence, ensuring credibility in their assessments. The WGBC, based in the United Kingdom, supports the establishment of national green building councils and serves as a global network, overseeing and connecting their efforts worldwide [3].

In this context, as urbanization accelerates and environmental pressures increase, Vietnam's embrace of green buildings is not just a trend but a vital strategy. The movement reflects the country's commitment to sustainability and its determination to improve the quality of life through climate-responsive, resource-efficient, and socially inclusive development models.

THE GLOBAL GREEN BUILDING MOVEMENT

Since the introduction of BREEAM in 1990 and the USGBC in 1993, the green building movement has become one of the most significant, proactive, and effective global responses to achieving sustainability and combating climate change. As interest grew among green leaders and developers worldwide, Vietnam also joined the movement. To connect like-minded advocates, the WGBC was founded in 1999, further accelerating global collaboration on sustainability. In the coming decades, green building activity is expected to expand significantly. In Asia, Singapore and China lead the way in green building development. However, Vietnam's progress remains modest compared to its regional peers. By early 2019, Vietnam had achieved a modest total of around 100 certified green buildings - far fewer than Thailand (197), Taiwan (154), China (3,269), and Singapore (over 1,000) [4].

A key differentiator is the role of government mandates. For instance, Singapore mandated Green Mark certification for all new buildings as early as 2008, a move that fundamentally transformed its market. In contrast, Vietnam has primarily relied on voluntary participation and emerging policy frameworks, which explains the slower adoption rate despite high market potential.

According to the WGBC, a green building is designed, constructed, or operated to minimize negative impacts while potentially creating positive effects on the climate and environment. Green building certification systems establish a set of standards and criteria to assess buildings, serving as the foundation for: (i) evaluating project performance, (ii) certifying environmental standards through independent third-party verification, (iii) facilitating integrated design and construction processes, and (iv) ensuring compliance with current regulations.

Currently, over 100 countries have established specialized councils or agencies to oversee green building development, provide guidance, and either adopt or create their own certification systems. These rating systems are tailored to each country's economic, social, and environmental conditions, as well as the specific design goals and intended users of a building. While the content and criteria may vary, their overarching objective remains the same - to promote sustainability and protect the global environment.

Table 1 provides an overview of major milestones demonstrating the growing global interest in green buildings—from international agreements such as the Earth Summit (Rio, 1992), Kyoto Protocol (1997), and Paris COP (2015) to the establishment of Green Building Councils worldwide, including Vietnam (2007). These conferences and organizations have laid the foundation for climate policies and strengthened national commitments.

Table 1: The Development Process of the Global Green Building Market (source: authors)

Green Building Councils	Year	Activities of the United Nations
	1990	Intergovernmental Panel on Climate Change (IPCC), 1st Assessment Report: Climate Change 1990
	1992	United Nations Conference on Environment and Development (Earth Summit, Rio)
U.S. Green Building Council (the first Green Building Council)	1993	
Hong Kong BEAM Society (Building Environmental Assessment Method Society)	1995	Intergovernmental Panel on Climate Change (IPCC), 2nd Assessment Report: Climate Change 1995 COP1 – Berlin Conference of the Parties (1995)
	1996	COP2 Geneva
	1997	COP3 Kyoto
	1998	COP4 Buenos Aires
	1999	COP5 Bonn
Korea Green Building Council (KGBC)	2000	COP6 The Hague
India Green Building Council (IGBC) Japan Sustainable Building Consortium (JSBC)	2001	IPCC, Third Assessment Report: Climate Change 2001 COP7 Marrakech
World Green Building Council (WorldGBC)	2002	COP8 New Delhi
	2003	COP9 Milan
Taiwan Green Building Council	2004	COP10 Buenos Aires
	2005	COP11 Montreal
	2006	COP12 Nairobi
Philippines Green Building Council UK Green Building Council Vietnam Green Building Council (VGBC)	2007	IPCC 4th Assessment Report: Climate Change 2007 COP13 Bali
Indonesia Green Building Council China Green Building Council	2008	COP14 Poznan
Malaysia Green Building Council Russia Green Building Council Singapore Green Building Council	2009	COP15 Copenhagen
Nigeria Green Building Council	2010	COP16 Cancun
Thailand Green Building Association	2011	COP17 Durban
Tunisia Green Building Council	2012	RIO+20, United Nations Conference on Sustainable Development COP18 Qatar
	2013	COP19 Warsaw
Tanzania Green Building Council Zimbabwe Green Building Council	2014	IPCC, 5th Assessment Report: Climate Change 2014 COP20 Lima, Peru
	2015	COP 21 Paris
Uganda Green Building Council	2016	COP22 Marrakech
Uruguay Green Building Council	2017	COP23 Bonn Germany
	2018	COP24 Poland
	2019	COP25 Madrid
	2021	COP 26 Glasgow
	2022	COP 27 Sharm El Sheikh IPCC 6th Assessment Report: Climate Change 2022
	2023	COP 28 UAE
	2024	COP 29 Azerbaijan

In Asia, the early 21st century witnessed pioneering green building developments. By 2001, four Asian Green Building Councils were active - in Hong Kong, South Korea, Japan, and India - with multiple assessment tools such as LEED, BREEAM, CASBEE, HK-BEAM, and EEWH introduced to regulate industrial development and raise environmental awareness. Both developed and developing countries began prioritizing eco-friendly construction to conserve energy and protect ecosystems.

From 2004 onwards, new Green Building Councils emerged across Asia, including Indonesia, Malaysia, the Philippines, Singapore, and Taiwan, alongside related organizations in China (Hong Kong), Sri Lanka, Thailand, and Vietnam.

By 2011, 25 million square meters of Singapore's building space held Green Mark certification - about 12% of the country's built-up area. Similarly, approximately 12 million square meters in Vietnam, China, and Malaysia also earned Green Mark certification.

As Asia pursues an improved quality of life, it confronts escalating environmental costs. Rapid economic growth has brought prosperity but has also strained the environment severely. Studies indicate that countries with the highest carbon footprints often have the highest GDP and Human Development Index (HDI) scores[5,6]. Over time, new developments will replace smaller residential areas, leading to ecosystem loss. Increasing urban density and climate change pose serious risks to public health and quality of life.

In response, many countries, including Vietnam, are promoting green buildings, eco-friendly urban areas, and sustainable development. Vietnam's green building initiatives enjoy robust government support and growing interest from investors, engineers, and architects. Emerging eco-city and green industrial zone projects are expected to generate positive impacts, address global challenges, and set the direction for future urban development.

THE DEVELOPMENT OF THE GREEN BUILDING MOVEMENT IN VIETNAM

In Vietnam, rapid urbanization and increasing environmental pressures have led to thousands of construction projects daily. This growth demands urban planning and design solutions that minimize energy consumption, protect ecosystems, and promote sustainable development.

Since 2012, Vietnam has made significant strides in defining policies and strategies for sustainable development and climate change adaptation. The government has issued clear long-term visions and action plans to promote Green Growth at both national and local levels, supported by specific directives from the Ministry of Construction focused on the construction sector, green growth, and green urban development. Key policy milestones include[7]:

- Decision No. 1393/QĐ-TTg (September 25, 2012): Approved the National Green Growth Strategy for 2011–2020 with a vision toward 2050, highlighting objectives such as reducing greenhouse gas emissions intensity, promoting clean and renewable energy, greening production, and fostering sustainable consumption and lifestyles.
- Resolution No. 24/NQ-TW (June 3, 2013): Issued by the Central Executive Committee, emphasizing proactive climate change response, resource management, environmental protection, transitioning to a green growth model, and piloting green economic, industrial, and urban initiatives.
- Decision No. 403/QĐ-TTg (March 20, 2014): Approved the National Green Growth Action Plan for 2014–2020, addressing institutional development, greenhouse gas reduction, clean energy promotion, greening production, and consumption.
- Decision No. 419/QĐ-BXD (May 11, 2017): Outlined the Ministry of Construction's Green Growth Action Plan until 2020 with a vision toward 2030, aligned with national strategies.
- Circular No. 01/2018/TT-BXD (January 5, 2018): Established indicators for green urban growth, including 24 criteria across economic efficiency, environmental quality, social life quality, and governance.
- Decision No. 84/QĐ-TTg (January 19, 2018): Approved the Green Urban Development Plan until 2030, featuring priority actions to guide sustainable urbanization.

A **Green Growth City** in Vietnam is defined as one that achieves economic growth while minimizing negative environmental impacts through comprehensive urban policies and sustainable practices. This concept lays the groundwork for the development of new green and sustainable urban areas.

Vietnam's engagement in international climate commitments further reinforces its domestic efforts. At **COP26**, Vietnam joined 147 countries pledging to achieve net-zero emissions by 2050. The government has acted decisively to implement this, notably through:

- Decision No. 385/QĐ-BXD (May 12, 2022): Defining the roadmap for net-zero by 2050, green building standards development, and promotion of climate-resilient, low-carbon urban projects.

Subsequent international conferences - COP27 and COP28 (2023) - saw Vietnam enhance its commitments, including supporting global targets of a 43% emissions reduction by 2030 and tripling renewable energy capacity. At COP29 (November 2024), Vietnam reaffirmed its commitment to climate adaptation and carbon market development, aiming to launch a domestic carbon market by 2025 with pilot phases for major industries and integration into international carbon markets.

Vietnam's leadership in climate action has been acknowledged internationally, supported by coordinated efforts from ministries, high-level engagement with international organizations,

As one of the country's most vulnerable to climate change, Vietnam recognizes the dual necessity of climate adaptation and emission reduction. In this context, green or sustainable architecture has become an essential strategy - integrating eco-friendly design, efficient systems, health considerations, resource use, and social equity into a comprehensive sustainability framework. However, despite these advantages, the pace of green building development in Vietnam has been slower compared to some regional neighbors[2].

The Vietnam Green Building Council (VGBC) was established in 2007 to raise awareness and build capacity in green building development. Officially recognized by the Ministry of Construction in 2009, VGBC helped found the WGBC Asia Pacific Network later that year. In 2016, VGBC became a locally registered Social Enterprise (VGBC Enterprise Company Limited), further strengthening its role in sustainable development[3].

Today, Vietnam employs four main green building certification systems, including LOTUS (VGBC), LEED (USGBC), EDGE (IFC, World Bank), and Green Mark (BCA Singapore). Other certification systems like France's HQE, Germany's DGNB, Australia's Green Star (used unofficially), and Earth Check Certified (tourism sector focused) have limited application in Vietnam. Among these, LEED, EDGE, and LOTUS are the most widely adopted for comprehensive green building evaluation. Specialized certifications such as WELL and FITWELL (focusing on occupant health and comfort) and EDGE (energy and water efficiency, promoted by the IFC for developing countries) are also gaining traction, particularly in residential projects.

As Vietnam's sole green building council, VGBC developed LOTUS in 2009 to align with global priorities while addressing Vietnam's climate, regulations, and construction practices. LOTUS evaluates buildings comprehensively, covering site impact, ecology, energy, water, materials, waste, indoor environment, management, and community engagement. It serves as a practical, transparent tool to guide sustainable construction decision-making.

Since its pilot in 2010, LOTUS has evolved through updates, with the latest version **LOTUS New Construction (NC) V3** released in April 2019. LOTUS certification covers diverse project types, including:

- LOTUS NC V3: New construction/major renovations (GFA $\geq$ 2,500 m^2).
- LOTUS BIO: Existing buildings.
- LOTUS Homes: Single-family residential.
- LOTUS SB: Small non-residential projects (GFA < 2,500 m^2).
- LOTUS Interiors and Small Interiors: Interior fit-outs.
- LOTUS Core & Shell (pilot): Large residential developments where interiors are fitted by buyers.

Through these tailored certifications, LOTUS provides comprehensive sustainability assessment tools suited to Vietnam's diverse construction landscape.

According to the **IFC Report on Vietnam's Green Building Market (2023)**, Vietnam had 396 certified projects totaling 9,734,000 m^2 of gross floor area across LEED, LOTUS, Green Mark, EDGE, and others. LEED led with 151 projects, followed by LOTUS (72), Green Mark (23), and EDGE (154, mainly focused on resource efficiency).

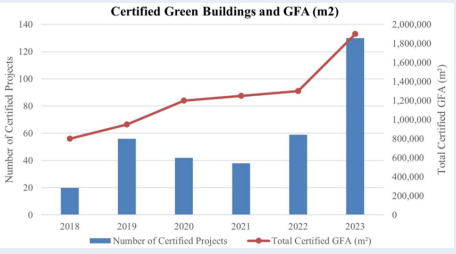


Figure 1: Number of certified green building projects and Total certified GFA of Vietnam market (source: authors, [8])

Figure 1 illustrates that annual certifications typically ranged from 40 to 60 projects, but 2023 saw a surge to 129 certifications, more than doubling from 58

the previous year. Certified GFA grew steadily from 800,000 m^2 in 2018 to nearly 2,000,000 m^2 in 2023, marking rapid sector expansion.

Key drivers of this spike include increasing market demand for higher-value sustainable buildings and multinational corporations' sustainability requirements. The EU's Carbon Border Adjustment Mechanism further pressures supply chains to disclose their carbon footprints, emphasizing the role of green buildings in reducing emissions along the value chain.

Despite this momentum, critical "bottlenecks" persist. Institutional and financial constraints, including a shortage of trained experts, limited political incentives, and concerns over high upfront investment costs, hinder large-scale adoption. Furthermore, the coexistence of multiple rating systems such as: LEED, LOTUS, EDGE,… while providing options, has created some confusion among stakeholders regarding investment decisions.



Figure 2: Three focus areas of Green Building Councils (source: [9])



Figure 3: Seven global policy principles to 2050 (source: [9])

SEVEN GLOBAL POLICY PRINCIPLES TO 2050

The WGBC has articulated seven core policy principles to guide governments worldwide in developing effective building policies and programs (see Figure 2 and Figure 3). These principles are intentionally designed to be mutually reinforcing, recognizing the interdependencies between critical sustainability topics. For example, measures aimed at reducing carbon emissions and enhancing resilience often deliver multiple co-benefits across various sectors. Similarly, adopting circular design principles not only reduces carbon footprints but also improves resilience and supports biodiversity conservation.

To maximize their effectiveness, these principles should be applied in an integrated manner, with full recognition of their interconnections. This holistic application enables synergistic impacts, amplifying benefits across the built environment.

The WGBC urges policymakers at all government levels to embrace this comprehensive and integrated approach. Doing so will ensure that policies and regulations catalyze the transformative actions necessary to meet the Paris Agreement targets and advance WGBC's vision of a sustainable built environment.

By adopting these principles as a unified framework, governments can develop impactful, forward-looking strategies that accelerate the global transition toward greener, more resilient buildings.

Table 2 provides a detailed overview of the seven global policy principles guiding efforts toward 2050. These principles address critical issues, including carbon reduction, resilience, circularity, water management, biodiversity, health, equity, and access.

When developing policies and programs, both national and local governments should establish strong, actionable regulations that align with the priority areas outlined in the table. For example, under the carbon principle, a key focus is the renovation of existing buildings and the reduction of both operational and embodied carbon throughout the entire building life cycle.

For Vietnam, these principles must be integrated into local urban planning to move beyond energy efficiency. Specifically, the "Resilience" and "Water" principles are vital for Vietnam's climate-vulnerable urban areas, necessitating a shift toward resilient design to mitigate climate shocks.

This structured framework helps ensure that sustainability objectives are systematically integrated into building policies and regulations, driving effective progress toward greener and more resilient built environments.

CONCLUSION

Green building is not merely a temporary trend in Vietnam's construction industry but an essential movement toward sustainable development. Its adoption must be recognized as a crucial strategy for addressing the growing challenges facing the sector, including overpopulation, rapid urbanization, natural

Table 2: The contents of Seven global policy principles to 2050 (source: authors)

Principles	When developing policies and Programs, National and Local Governments must
Carbon	Prioritize renovation of existing buildings
	Eliminate both operational and embodied carbon across the lifecycle of all buildings
Resilience	Homes and communities
	Enhance resilience and adaptation to climate change and other shocks
Circularity	Drive waste out of the construction value chain
	Minimize the use of primary materials by optimizing use of resources and materials
Water	Conserve and protect water resources
	Guarantee equitable access to potable water and sanitation
Biodiversity	Avoid development on land with high biodiversity
	Regenerate natural systems and restore biodiversity loss
	Prioritize nature-based solutions that enhance, expand, and protect the natural environment
Health	Develop healthy, equitable, and resilient buildings, communities, and cities
	Improve health and well-being throughout the building and construction lifecycle
Equity and access	Support equal access to safe, healthy, sustainable homes and communities for all citizens

resource depletion, and the adverse effects of climate change. Vietnam is emerging as a key player in Southeast Asia's green building market; notably, in 2023, the number of certifications surged to 129 projects, more than doubling the 58 certifications recorded the previous year. This growth indicates that green building is shifting from a voluntary choice to a "market necessity," largely driven by multinational corporations' sustainability requirements and the EU's Carbon Border Adjustment Mechanism (CBAM).

While the government plays a central role in promoting this movement through strategies and regulations, Vietnam still faces significant institutional and financial "bottlenecks". Compared to regional peers like Singapore, which has mandated Green Mark certification since 2008, Vietnam's progress remains primarily voluntary and lacks strong commitment from the broader development community. Despite its potential, adoption is slowed by a shortage of trained experts and persistent concerns regarding high upfront investment costs. Additionally, the growing association of green buildings with various rating systems in Vietnam has created confusion among stakeholders, making it challenging to promote and invest in green projects effectively. Therefore, to facilitate informed investment decisions, it is essential for stakeholders to clearly differentiate the key features of different green building rating systems.

This study also integrates the seven WGBC global policy principles into the Vietnamese context, confirming that resilience and water conservation strategies are fundamental for climate-vulnerable urban areas. This structured framework serves as both a strategic roadmap to achieve the 2050 Net-zero target and a theoretical foundation for future research on adaptive architecture in the region.

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ABBREVIATION

BEAM: Building Environmental Assessment Method
CBAM: Carbon Border Adjustment Mechanism
COP: Conference of the Parties
GFA: Gross floor area
HDI: Human Development Index
IFC: International Finance Corporation
IGBC: India Green Building Council
IPCC: Intergovernmental Panel on Climate Change
JSBC: Japan Sustainable Building Consortium
KGBC: Korea Green Building Council
NC: New Construction (applied in LOTUS NC certification)
UN: United Nations

USGBC: U.S. Green Building Council
VGBC: Vietnam Green Building Council
WGBC / WorldGBC: World Green Building Council

CONFLICT OF INTEREST

The authors declare that they have no conflicts of interest regarding the publication of this paper.

AUTHOR CONTRIBUTION

Lê Thị Hồng Na was responsible for conceptualization, methodology, and writing – original draft, while Trần Công Danh contributed to validation and writing – review & editing.

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Bài tổng quan

Công trình xanh tại Việt Nam: quá trình phát triển, các nguyên tắc toàn cầu và xu hướng tương lai

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TÓM TẮT

Việt Nam là một trong những quốc gia chịu ảnh hưởng nặng nề nhất của biến đổi khí hậu toàn cầu, dẫn đến nhu cầu cấp thiết về phát triển bền vững trong lĩnh vực xây dựng vốn có tác động rất lớn đến môi trường. Từ giữa những năm 2000, Việt Nam đã và đang thúc đẩy phong trào công trình xanh, được đánh dấu rõ nét bởi sự thành lập Hội đồng Công trình Xanh Việt Nam vào năm 2007, dù việc áp dụng vào thực tiễn ban đầu còn hạn chế so với các quốc gia trong khu vực như Singapore, nhưng trong những năm gần đây đã chứng kiến sự mở rộng nhanh chóng của lĩnh vực này. Tính đến năm 2023, Việt Nam đã chứng kiến một bước phát triển vượt bậc, với số lượng chứng nhận Công trình xanh tăng hơn gấp đôi so với năm trước. Động lực cho xu hướng này đến từ nhu cầu ngày càng gia tăng của các nhà đầu tư và doanh nghiệp, các yêu cầu về phát triển bền vững của các tập đoàn đa quốc gia, cùng với tác động của các khuôn khổ quốc tế như Cơ chế điều chỉnh biên giới Carbon của Liên minh Châu Âu. Dù có sự phát triển đầy hứa hẹn, nhưng vẫn cần có những bước tiến đáng kể để Việt Nam thực hiện cam kết khí hậu đã đề ra tại COP26. Quá trình chuyển đổi công trình xanh từ một lựa chọn mang tính tự nguyện sang một nhu cầu tất yếu của thị trường hiện vẫn đang gặp nhiều trở ngại về thể chế và tài chính, chẳng hạn như thiếu hụt đội ngũ chuyên gia, tâm lý e ngại về chi phí đầu tư và sự thiếu rõ ràng trong nhận thức của thị trường trước sự tồn tại của nhiều hệ thống chứng nhận khác nhau.

Trước thực trạng trên, bài báo cung cấp một cái nhìn toàn diện về công trình xanh tại Việt Nam trong thập niên 2020 và đối chiếu một cách có hệ thống với bảy nguyên tắc chính sách toàn cầu hướng đến năm 2050 của Hội đồng công trình Xanh Thế giới: Carbon, Khả năng phục hồi, Tính tuần hoàn, Nước, Đa dạng sinh học, Sức khỏe và Công bằng. Trong bối cảnh Việt Nam có mức độ dễ tổn thương cao trước biến đổi khí hậu, trong đó hai nguyên tắc "Khả năng phục hồi" và "Nước" được xác định là đặc biệt quan trọng đối với quy hoạch đô thị địa phương. Từ đó, khung nguyên tắc này trở thành lộ trình chiến lược giúp các bên liên quan đưa ra quyết định đầu tư sáng suốt và thúc đẩy quá trình chuyển đổi sang môi trường xây dựng bền vững, hướng tới mục tiêu phát thải ròng bằng không vào năm 2050.

Từ khoá: Công trình xanh, tiêu chuẩn công trình xanh, phát triển bền vững

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