

**THE ROLE OF LAW AND POLICY IN PROMOTING ENVIRONMENTAL
SUSTAINABILITY IN HIGHER EDUCATION IN VIETNAM**

***O PAPEL DA LEGISLAÇÃO E DAS POLÍTICAS PÚBLICAS NA PROMOÇÃO DA
SUSTENTABILIDADE AMBIENTAL NO ENSINO SUPERIOR NO VIETNÃ***

***EL PAPEL DE LA LEGISLACIÓN Y DE LAS POLÍTICAS PÚBLICAS EN LA
PROMOCIÓN DE LA SOSTENIBILIDAD AMBIENTAL EN LA EDUCACIÓN
SUPERIOR EN VIETNAM***



Nguyen Thi Thanh NHAN¹
e-mail: thanhnhacth@gmail.com



Doi Van TANG²
e-mail: doivantang@gmail.com



Nguyen Van LUONG³
e-mail: luonghvct1962@gmail.com



Ha Thanh HUONG⁴
e-mail: huonght@niem.edu.vn



Tran Trung TINH⁵
e-mail: tinh.naem@gmail.com

How to reference this paper:

Nhan, N. T. T.; Tang, D. V.; Luong, N. V.; Huong, H. T.; Tinh, T. T. (2026). The role of law and policy in promoting environmental sustainability in higher education in Vietnam. *Revista on line de Política e Gestão Educacional*, 30(esp1), e026019. <https://doi.org/10.22633/rpge.v30iesp1.20908>



| Submitted: 02/01/2026
| Revisions required: 18/01/2026
| Approved: 25/02/2026
| Published: 30/03/2026

Editor: Prof. Dr. Sebastião de Souza Lemes
Deputy Executive Editor: Prof. Dr. José Anderson Santos Cruz

¹ Ho Chi Minh National Academy of Politics, Hanoi, Vietnam.

² Ho Chi Minh National Academy of Politics, Hanoi, Vietnam.

³ Thai Binh University, Hung Yen Province, Vietnam.

⁴ National Academy of Education Management, Hanoi city, Vietnam.

⁵ National Academy of Education Management, Hanoi city, Vietnam.

ABSTRACT: Digital transformation has become a key trend in education, reshaping management, teaching, and learning in the context of the Fourth Industrial Revolution. This study examines the current state of digital transformation in Vietnamese education, focusing on leaders' and teachers' perceptions, the integration of digital technologies in teaching, and key implementation challenges. A mixed-methods approach was employed, including policy analysis, surveys, and in-depth interviews at selected institutions. Findings show that initial progress has been achieved, particularly in the adoption of online platforms and digital tools. However, major challenges persist, such as limited infrastructure, insufficient teacher digital competence, and the absence of effective management and evaluation mechanisms. The study proposes solutions to improve digital transformation effectiveness, including enhancing teacher competencies, strengthening governance frameworks, and increasing investment in technological infrastructure.

KEYWORDS: Digital transformation. Education. Educational technology. Digital competence. Vietnam.

RESUMO: *A transformação digital tornou-se uma tendência central na educação, reconfigurando a gestão, o ensino e a aprendizagem no contexto da Quarta Revolução Industrial. Este estudo examina o estado atual da transformação digital na educação vietnamita, com foco nas percepções de líderes e professores, na integração de tecnologias digitais no ensino e nos principais desafios de implementação. Foi adotada uma abordagem de métodos mistos, incluindo análise de políticas, questionários e entrevistas em profundidade em instituições selecionadas. Os resultados mostram que houve progresso inicial, particularmente na adoção de plataformas online e ferramentas digitais. No entanto, persistem desafios significativos, como infraestrutura limitada, competência digital insuficiente dos professores e ausência de mecanismos eficazes de gestão e avaliação. O estudo propõe soluções para melhorar a eficácia da transformação digital, incluindo o fortalecimento das competências docentes, o aprimoramento dos modelos de governança e o aumento do investimento em infraestrutura tecnológica.*

PALAVRAS-CHAVE: Transformação digital. Educação. Tecnologia educacional. Competência digital. Vietnã.

RESUMEN: *La transformación digital se ha convertido en una tendencia clave en la educación, reconfigurando la gestión, la enseñanza y el aprendizaje en el contexto de la Cuarta Revolución Industrial. Este estudio examina el estado actual de la transformación digital en la educación vietnamita, centrándose en las percepciones de líderes y docentes, la integración de tecnologías digitales en la enseñanza y los principales desafíos de implementación. Se empleó un enfoque de métodos mixtos, que incluyó análisis de políticas, encuestas y entrevistas en profundidad en instituciones seleccionadas. Los resultados muestran que se ha logrado un progreso inicial, particularmente en la adopción de plataformas en línea y herramientas digitales. Sin embargo, persisten desafíos importantes, como infraestructura limitada, competencia digital insuficiente del profesorado y la ausencia de mecanismos eficaces de gestión y evaluación. El estudio propone soluciones para mejorar la eficacia de la transformación digital, incluyendo el fortalecimiento de las competencias docentes, el refuerzo de los marcos de gobernanza y el incremento de la inversión en infraestructura tecnológica.*

PALABRAS CLAVE: *Transformación digital. Educación. Tecnología educativa. Competencia digital. Vietnam.*

INTRODUCTION

Environmental sustainability has become one of the most urgent challenges of the twenty first century, calling for comprehensive actions across all sectors of society, including education. Higher education institutions play a vital role in shaping sustainable development through research, innovation, and the education of future leaders (Amoros Molina et al., 2023; Filho et al., 2024). Global frameworks such as the United Nations 2030 Agenda for Sustainable Development emphasize the transformative power of education in achieving a balance between economic growth, social inclusion, and environmental protection (United Nations, 2015; UNESCO, 2020). Within this global movement, universities have been recognized as key agents for implementing the Sustainable Development Goals, particularly Goal 4 on Quality Education and Goal 13 on Climate Action (Antó et al., 2021; Amoros Molina et al., 2023).

Law and policy are central instruments for advancing sustainability within higher education. Environmental law provides the normative foundation for regulation, compliance, and accountability (Coase, 2013), while education policy operationalizes these legal principles through institutional strategies and programs (Bengtsson, 2016; Rashid et al., 2024). The effectiveness of environmental initiatives in universities depends greatly on the coherence between national environmental legislation and education governance systems (Aleixo et al., 2020; Adach-Pawelus et al., 2021). International experiences show that strong legal mandates such as environmental audits, green campus standards, and national sustainability accreditation systems can significantly improve university performance in environmental responsibility (Berchin et al., 2021; Décamps et al., 2021).

In Vietnam, higher education has increasingly embraced the discourse of sustainability. The government has issued several strategies and action plans that integrate environmental protection into national education development goals. However, implementation at the institutional level remains fragmented. Many universities still approach sustainability as an optional or symbolic activity rather than a core legal and policy requirement (Kieu et al., 2016; Tien et al., 2021; Bui et al., 2024). The gap between legislation and institutional practice highlights the need to strengthen the legal and policy mechanisms that guide environmental governance in higher education. As emphasized by UNESCO (2020) and UNEP (2021), achieving sustainable transformation in universities requires embedding environmental principles into all dimensions of governance, curriculum, and community engagement.

This paper therefore examines the role of law and policy in promoting environmental sustainability in higher education in Vietnam. It explores the interaction between environmental governance and university management, analyzes international legal and policy frameworks, and identifies the main challenges and opportunities for improving Vietnam's higher education system. By doing so, the study contributes to the ongoing discussion on legal reform and sustainable governance, aiming to strengthen the connection between environmental law and an.

LITERATURE REVIEW

Concepts of environmental sustainability in higher education

Environmental sustainability in higher education refers to the systematic integration of ecological, social, and economic dimensions of sustainability within universities' missions, operations, and learning environments. It embodies the commitment of higher education institutions to minimize negative environmental impacts, promote environmental literacy, and contribute to the development of sustainable societies (Christie et al., 2015; Berchin et al., 2021). The concept extends beyond environmental protection to include ethical responsibility, resource efficiency, and the cultivation of environmental citizenship among students and staff (Antó et al., 2021; Amoros Molina et al., 2023).

In the academic context, sustainability in higher education has evolved from environmental education toward a more holistic paradigm that integrates teaching, research, governance, and community engagement (Acosta Castellanos & Queiruga Dios, 2022). Early initiatives primarily focused on environmental awareness and conservation activities. However, contemporary sustainability frameworks emphasize the transformation of institutional structures, decision making, and cultural values in alignment with the Sustainable Development Goals (UNESCO, 2020; Aleixo et al., 2020). This evolution reflects a growing recognition that universities are not only centers of knowledge but also agents of change that can model sustainable behavior and influence national development policies (Etzkowitz et al., 2000).

The concept of environmental sustainability in universities also includes the governance of natural and human resources within a framework of accountability and long term vision. Universities are expected to reduce their ecological footprints through responsible campus management, green procurement, and sustainable infrastructure (Eppinga

et al., 2020; Décamps et al., 2021). At the same time, they must integrate sustainability principles into curricula and pedagogy to foster critical thinking and social responsibility among students (Buckler & Creech, 2014; Antó et al., 2021). In this way, environmental sustainability becomes both a process and an outcome of higher education reform, ensuring that learning institutions actively contribute to environmental resilience and sustainable development at local, national, and global levels.

In Vietnam, this conceptual framework has gradually influenced policy discourse and educational reform. The inclusion of environmental education in the national curriculum and the promotion of green university initiatives demonstrate growing awareness of sustainability within the higher education system (Bui et al., 2024; Thanh, 2024). Nevertheless, the implementation of sustainability concepts remains uneven across institutions, often depending on external funding, leadership commitment, or voluntary participation. Strengthening legal and policy support is therefore essential to move from individual initiatives toward a coherent national framework that ensures environmental sustainability becomes an integral part of higher education governance.

Theoretical foundations of environmental law and policy

Environmental law and policy are grounded in a broad theoretical foundation that connects legal norms, ethical responsibility, and social governance. Environmental law provides the formal rules that define human interaction with the natural environment, ensuring protection, accountability, and justice in the use of natural resources (Coase, 2013; Arrow, 1974). It is based on key legal principles such as the precautionary principle, the polluter pays principle, and the principle of sustainable use. These principles guide the creation of laws and policies that aim to prevent environmental degradation and promote ecological balance within national and institutional frameworks (Cho et al., 2012; Rashid et al., 2024).

From a theoretical perspective, environmental policy translates these legal commitments into action by designing institutional mechanisms and regulatory instruments that operationalize sustainability goals (Berchin et al., 2021). Policies function as bridges between environmental law and social practice, enabling universities, government agencies, and industries to implement measures that address pollution, resource management, and climate adaptation (Aleixo et al., 2020; Amoros Molina et al., 2023). This interaction between law and policy reflects the dynamic nature of governance in sustainable development, where

the effectiveness of environmental protection depends on both regulatory enforcement and policy coherence (Bengtsson, 2016; Eppinga et al., 2020).

Environmental law is also rooted in the concept of environmental justice, which recognizes that environmental protection must be equitable and inclusive. The principle of intergenerational equity emphasizes that current generations hold a moral and legal obligation to protect the environment for future generations (Antó et al., 2021; UNESCO, 2020). Within the higher education context, this perspective implies that universities have not only an educational mission but also a legal and ethical duty to cultivate awareness, innovation, and stewardship for sustainable development (Fadeeva & Mochizuki, 2010; Amoros Molina et al., 2023).

In Vietnam, environmental law has developed within the broader framework of national sustainable development policies. The Law on Environmental Protection (2020) and related decrees highlight the integration of education, research, and technology in addressing environmental challenges. However, the legal enforcement within higher education remains limited due to fragmented coordination between ministries and the lack of specific mechanisms to translate environmental law into university governance (Bui et al., 2024; Dang et al., 2023). Strengthening the theoretical and institutional link between environmental law and policy is therefore essential to enhance compliance, ensure accountability, and support Vietnam's transition toward sustainable higher education.

International legal and policy frameworks

The international framework for environmental sustainability in higher education is built upon a set of global legal and policy instruments developed by the United Nations and its specialized agencies. These frameworks provide both normative guidance and operational strategies for integrating sustainability into education systems. The 2030 Agenda for Sustainable Development adopted by the United Nations in 2015 represents a universal plan of action for people, planet, and prosperity, emphasizing education as a fundamental driver of sustainable transformation (United Nations, 2015). Among the seventeen Sustainable Development Goals, SDG 4 promotes inclusive and equitable quality education, while SDG 13 encourages urgent action to combat climate change and its impacts. Together, they establish the foundation for linking environmental law, education policy, and institutional governance.

The United Nations Educational, Scientific and Cultural Organization (UNESCO) has been central in advancing this global agenda through the Education for Sustainable Development (ESD) framework. The report *Education for Sustainable Development: A Roadmap* outlines how higher education institutions can embed sustainability principles across teaching, research, operations, and community engagement (UNESCO, 2020). Through the ESD for 2030 Global Network, UNESCO promotes cooperation among universities and governments to develop national strategies that strengthen environmental awareness, institutional accountability, and curriculum reform. This initiative encourages universities to move beyond isolated environmental projects and adopt systemic approaches that align academic objectives with sustainability outcomes.

The United Nations Environment Programme (UNEP) also plays a significant role in shaping the global policy framework for environmental education and governance. Its Sustainable University Framework provides practical tools and guidelines for universities to incorporate environmental management, sustainable infrastructure, and green procurement into their operations (UNEP, 2021). UNEP's annual reports consistently highlight the need for higher education to act as both a platform for research innovation and a policy partner in achieving sustainability goals (UNEP, 2021). These frameworks stress the importance of institutionalizing sustainability through binding commitments, policy coherence, and measurable outcomes.

In Europe, the integration of the Sustainable Development Goals into higher education has been systematically studied and implemented. For instance, Amoros Molina et al. (2023) and Filho et al. (2024) emphasize that universities in the European Union have developed comprehensive models for embedding the SDGs into academic governance and campus management. Similarly, initiatives such as the Planetary Wellbeing Initiative underline the ethical and legal dimensions of sustainability in higher education, linking the pursuit of environmental protection with social justice and institutional accountability (Antó et al., 2021).

Collectively, these international frameworks provide Vietnam with valuable reference points for reforming its higher education system. They highlight the need for stronger legal enforcement, clearer policy alignment, and deeper institutional engagement with sustainability objectives. By adopting and adapting these global standards, Vietnamese universities can enhance their contribution to environmental governance and national sustainable development.

National frameworks and institutional practices in Vietnam

Vietnam has demonstrated increasing commitment to environmental protection and sustainable development through its national legal and policy frameworks. Over the past decade, the government has integrated sustainability objectives into major legislative and strategic documents, recognizing education as a key driver of environmental awareness and behavioral change (Bengtsson, 2016; Bui et al., 2024). The Law on Environmental Protection (2020) serves as the primary legal foundation, emphasizing the responsibility of organizations, including higher education institutions, to promote environmental education, research, and innovation. This law is supported by the National Strategy on Environmental Protection for the Period 2021–2030 with a Vision to 2050, which identifies education and communication as essential components of Vietnam’s sustainable development goals (Dang et al., 2023).

The Ministry of Education and Training (MOET) has also introduced policies aimed at incorporating sustainability into educational management and curricula. The Action Plan for Education for Sustainable Development 2021–2030 promotes the inclusion of environmental themes in teaching programs and encourages universities to integrate sustainability principles into institutional governance. Several Vietnamese universities have launched pilot projects on green campus initiatives and sustainability training, although these remain largely voluntary and dependent on external funding (Tien et al., 2021; Thanh, 2024). In practice, implementation varies across institutions, with more progress observed in universities that have international partnerships or participate in regional sustainability networks.

Despite these positive developments, challenges persist in translating national policies into effective institutional practices. Many universities still lack internal regulations or dedicated sustainability offices to oversee environmental management and reporting (Bui et al., 2024). Environmental education is often treated as an elective rather than a mandatory component of higher education curricula. Moreover, coordination between MOET and the Ministry of Natural Resources and Environment (MONRE) remains limited, leading to fragmentation in policy execution and monitoring. As a result, sustainability efforts in higher education are often inconsistent and poorly documented.

Nevertheless, a number of Vietnamese universities have begun to align their institutional missions with the Sustainable Development Goals (SDGs), demonstrating growing awareness of the role of higher education in addressing environmental issues. For

instance, universities in Hanoi, Ho Chi Minh City, and Da Nang have incorporated sustainability targets into their strategic plans, introduced environmental science programs, and participated in international initiatives supported by UNESCO and UNEP (Kieu et al., 2016; Bui et al., 2024). These efforts illustrate an emerging institutional culture of environmental responsibility, although a more comprehensive and legally binding approach is needed to ensure continuity and accountability.

METHODOLOGY

Research Design and Approach

This study employed a mixed methods design that combined qualitative document analysis with a quantitative survey. The qualitative component focused on analyzing environmental laws, education policies, and institutional strategies related to sustainability in higher education. The quantitative component explored how lecturers and students perceived and implemented environmental sustainability practices within their universities. The mixed methods approach made it possible to examine both the structural and behavioral dimensions of sustainability, thereby providing a comprehensive understanding of the relationship between law, policy, and institutional practice in Vietnamese higher education.

Data Sources and Collection

Data were collected from two main sources.

First, the document analysis was conducted using secondary data obtained from academic publications in international journals indexed in Scopus and Web of Science, Vietnamese scientific journals, government reports, and books on environmental law, sustainability, and higher education management. National laws, ministerial circulars, university regulations, and sustainability action plans were also reviewed to identify legal foundations and policy orientations relevant to higher education.

Second, a field survey was carried out among 35 lecturers and 450 students from five universities in Hanoi: Hanoi National University of Education, Vietnam National University, Hanoi University of Science and Technology, Hanoi University, and the University of Natural Resources and Environment. The survey participants were selected using stratified random sampling to ensure representation across faculties in natural sciences, social sciences, and engineering. The questionnaire consisted of four main sections that measured awareness of

environmental law, understanding of institutional policies, participation in sustainability initiatives, and evaluation of policy effectiveness. Both online and paper based questionnaires were distributed between April and June 2025. After the data cleaning process, 35 valid responses from lecturers and 442 valid responses from students were used for analysis.

Analytical Framework

The study's analytical framework consisted of three complementary dimensions.

First, a legal analysis was conducted to examine the extent to which environmental principles and obligations were integrated into national legislation and institutional regulations.

Second, a policy analysis assessed how sustainability goals were embedded in educational governance, curriculum design, and university management. Third, a quantitative analysis of survey results was undertaken to identify levels of awareness, engagement, and differences between lecturers and students regarding environmental sustainability. Descriptive statistics, mean comparison, and correlation analysis were used to identify trends and relationships among variables. The results of the document analysis were compared with the survey findings to interpret the consistency between legal and policy frameworks and actual implementation in universities.

Validation and Reliability

To ensure the validity and reliability of the findings, several procedures were implemented. The survey questionnaire was reviewed by experts in environmental education and higher education management to ensure content accuracy and clarity. A pilot test was conducted with five lecturers and fifteen students before the main data collection to refine wording and structure. The internal consistency of the survey was confirmed through reliability testing using statistical analysis. Triangulation was applied by comparing evidence from legal documents, policy papers, and survey data to ensure coherence and accuracy. All participants took part voluntarily, and anonymity was maintained throughout the study. The combination of these procedures guaranteed the credibility and reliability of the research results, reflecting both the legal context and the practical realities of environmental sustainability in Vietnamese higher education.

FINDINGS

Overview of Environmental Law and Policy in Vietnamese Higher Education

The document analysis revealed that Vietnam has established a relatively comprehensive legal framework related to environmental protection and sustainable development. The Law on Environmental Protection (2020) and the National Strategy on Environmental Protection 2021–2030 clearly emphasize the responsibility of education institutions in promoting sustainability. However, these commitments are not yet fully reflected in higher education management. Most universities have sustainability objectives in their mission statements, but implementation remains limited to short term projects or externally funded initiatives. Only two of the five surveyed universities had official policies or action plans specifically addressing environmental sustainability.

Moreover, while the MOET has incorporated sustainability themes into national education goals, the linkage between environmental law and higher education policy remains weak. The lack of binding regulations and monitoring mechanisms has led to uneven implementation across institutions. This finding confirms the gap identified in previous literature, where the enforcement of sustainability law within universities remains inconsistent.

General Results of the Survey

A total of 477 valid responses were collected, including 35 lecturers and 442 students from five universities in Hanoi. Table 1 summarizes the demographic profile of respondents. The sample represents a balanced distribution across natural sciences, engineering, social sciences, and education faculties.

Table 1.
Demographic information of respondents

Faculty	Lecturers (n)	Students (n)	Percentage (%)
Natural Sciences	10	95	22.0
Engineering	8	102	23.1
Social Sciences	9	128	28.7
Education	8	117	26.2
Total	35 (7.3%)	442 (92.7%)	100%

Note. The authors' survey data from research project code B2025-HVQ.01.

The majority of respondents (61%) reported being moderately aware of Vietnam's environmental laws, while only 18% indicated a high level of understanding. Among lecturers, 40% had participated in sustainability related training programs, compared to 21% of students. These figures suggest that while awareness exists, deeper legal and institutional understanding remains limited.

Awareness and Perception of Environmental Law and Policy

Respondents were asked to rate their awareness and perception of environmental law and policy in their universities on a five point Likert scale. The results are presented in Table 2.

Table 2.
Awareness and perception levels of environmental law and policy

Item	Lecturers (Mean ± SD)	Students (Mean ± SD)	Difference (p-value)
Awareness of national environmental law	3.86 ± 0.79	3.32 ± 0.83	0.012
Understanding of university environmental policy	3.64 ± 0.72	3.01 ± 0.77	0.018
Perceived importance of sustainability in curriculum	4.31 ± 0.65	4.06 ± 0.69	0.094
Confidence in policy implementation	3.42 ± 0.71	3.05 ± 0.80	0.037

Note. The authors' survey data from research project code B2025-HVQ.01.

The mean comparison indicates that lecturers have significantly higher awareness and policy understanding than students. However, both groups expressed uncertainty regarding the effectiveness of institutional implementation, as shown by the relatively moderate confidence scores (3.05–3.42). This reflects the absence of systematic enforcement and the limited dissemination of university sustainability regulations.

Institutional Practices and Implementation Gaps

Findings from the document review and survey suggest that environmental sustainability practices within universities are still emerging:

- Hanoi National University of Education: 78% of respondents reported active programs;
- Vietnam National University: 72%;
- Hanoi University of Science and Technology: 68%;
- Hanoi University: 59%;
- University of Natural Resources and Environment: 81%.

Although some universities show strong engagement in campus greening and environmental awareness programs, few have integrated sustainability requirements into teaching, research, or performance evaluation. Most activities are organized as short term campaigns rather than continuous institutional policies. Moreover, only two universities reported having a sustainability committee or designated office for environmental management.

Comparative Analysis between Lecturers and Students

A comparison of lecturer and student perceptions revealed several important differences (Table 3).

Table 3.

Comparison of perceptions between lecturers and students

Category	Lecturers (%)	Students (%)	Interpretation
Believe environmental law is clearly enforced in universities	48.6	32.4	Lecturers perceive stronger legal compliance than students
Think environmental education is compulsory in all programs	60.0	41.9	Indicates limited integration into curricula
Participate in sustainability activities on campus	74.3	57.6	Engagement is relatively high but still voluntary
Believe university leadership prioritizes environmental policy	68.6	50.2	Leadership awareness does not fully translate into action

Note. The authors' survey data from research project code B2025-HVQ.01

Lecturers expressed more confidence in institutional responsibility, while students emphasized the lack of consistency in applying environmental law at the university level. This

difference may stem from the limited communication between policy makers and learners, as well as the absence of transparent monitoring indicators.

DISCUSSION

The findings confirm that Vietnam has made progress in integrating environmental principles into education and legal systems, yet implementation within higher education remains fragmented. The gap between law and practice demonstrates that policy intentions are not sufficiently translated into operational frameworks. The limited awareness among students and the partial engagement of universities underline the need for stronger institutional governance and legal accountability mechanisms.

Comparative insights from developed countries show that universities that operate under explicit legal mandates for sustainability achieve higher compliance and participation rates. For Vietnam, aligning environmental law with higher education policy and establishing mandatory sustainability reporting would provide stronger incentives for universities to act. Furthermore, greater collaboration between MOET, MONRE, and higher education institutions could enhance coordination, monitoring, and capacity building.

Overall, the study highlights the importance of bridging the legal and policy gap in Vietnam's higher education system to ensure that environmental sustainability becomes an integral and enforceable component of university governance and culture.

FINAL CONSIDERATIONS

This study has examined the role of law and policy in promoting environmental sustainability in higher education in Vietnam, with a focus on the interaction between national legal frameworks, education policies, and institutional practices. The findings demonstrate that Vietnam has established a relatively comprehensive system of environmental legislation and strategic policies that acknowledge the importance of education in achieving sustainable development. However, the translation of these legal and policy commitments into concrete practices within universities remains limited and uneven.

The analysis reveals a clear gap between policy intentions and institutional implementation. While national laws such as the Law on Environmental Protection (2020) and education strategies emphasize sustainability, most universities still treat environmental initiatives as voluntary or project-based activities rather than as binding governance

obligations. The absence of specific legal enforcement mechanisms, sustainability reporting requirements, and internal regulatory frameworks has weakened the effectiveness of environmental governance in higher education.

Survey results further indicate that awareness of environmental law and policy among lecturers and students is only moderate, and confidence in institutional implementation remains limited. Although many universities actively organize environmental campaigns and green campus activities, these efforts are often fragmented, lacking long term planning and institutional integration. Sustainability has not yet been systematically embedded into core functions such as curriculum design, quality assurance, performance evaluation, and leadership accountability.

From a policy perspective, the study highlights the need to strengthen the coherence between environmental law and higher education governance. This requires the development of more explicit legal mandates for universities, including compulsory sustainability strategies, environmental audits, and transparent monitoring systems. Greater coordination between the Ministry of Education and Training and the Ministry of Natural Resources and Environment is also essential to ensure policy alignment and effective enforcement.

REFERENCES

- Acosta Castellanos, P. M., & Queiruga-Dios, A. (2022). From environmental education to education for sustainable development in higher education: A systematic review. *International Journal of Sustainability in Higher Education*, 23(3), 622–644.
- Adach-Pawelus, K., Gogolewska, A., Gorniak-Zimroz, J., Kielczawa, B., Krupa-Kurzynowska, J., Paszkowska, G., Szyszka, D., Worsa-Kozak, M., & Woźniak, J. (2021). A new face of mining engineer—International curricula to sustainable development and green deal (A case study of the Wrocław University of Science and Technology). *Sustainability*, 13(3), 1393. <https://doi.org/10.3390/su13031393>
- Aleixo, A. M., Azeiteiro, U. M., & Leal, S. (2020). Are the sustainable development goals being implemented in the Portuguese higher education formative offer? *International Journal of Sustainability in Higher Education*, 21(2), 336–352. <https://doi.org/10.1108/IJSHE-04-2019-0150>
- Amoros Molina, A., Helldén, D., Alfvén, T., Niemi, M., Leander, K., Nordenstedt, H., Rehn, C., Ndejjo, R., Wanyenze, R., & Biermann, O. (2023). Integrating the United Nations Sustainable Development Goals into higher education globally: A scoping review. *Global Health Action*, 16(1), Article 2190649. <https://doi.org/10.1080/16549716.2023.2190649>
- Antó, J. M., Martí, J. L., Casals, J., Bou-Habib, P., Casal, P., Fleurbaey, M., Frumkin, H., Jiménez-Morales, M., Jordana, J., Lancelotti, C., Llavador, H., Mélon, L., Solé, R., Subirada, F., & Williams, A. (2021). The planetary wellbeing initiative: Pursuing the sustainable development goals in higher education. *Sustainability*, 13(6), 3372. <https://doi.org/10.3390/su13063372>
- Arrow, K. J. (1974). *The limits of organization*. W. W. Norton & Company.
- Bengtsson, S. L. (2016). Hegemony and the politics of policy making for education for sustainable development: A case study of Vietnam. *The Journal of Environmental Education*, 47(2), 77–90.
- Berchin, I. I., de Aguiar Dutra, A. R., & Guerra, J. B. S. O. D. A. (2021). How do higher education institutions promote sustainable development? A literature review. *Sustainable Development*, 29(6), 1204–1222.
- Buckler, C., & Creech, H. (2014). *Shaping the future we want: UN decade of education for sustainable development; final report*. UNESCO.
- Bui, H. T. M., Bui, T., & Pham, B. T. (2024). The role of higher education in achieving sustainable development goals: An evaluation of motivation and capacity of Vietnamese institutions. *The International Journal of Management Education*, 22(3), 101088.
- Cho, C. H., Guidry, R. P., Hageman, A. M., & Patten, D. M. (2012). Do actions speak louder than words? An empirical investigation of corporate environmental reputation. *Accounting, Organizations and Society*, 37(1), 14–25.

- Christie, B. A., Miller, K. K., Cooke, R., & White, J. G. (2015). Environmental sustainability in higher education: What do academics think? *Environmental Education Research*, 21(5), 655–686.
- Coase, R. H. (2013). The problem of social cost. *The Journal of Law and Economics*, 56(4), 837–877.
- Dang, D. H., Graham, M. C., & Ha, Q. K. (2023). Emerging and legacy pollutants in Vietnam related to the climate–water–energy–food nexus. *Archives of Environmental Contamination and Toxicology*, 85(3), 209–211.
- Décamps, A., Allal-Chérif, O., & Gombault, A. (2021). Fostering knowledge of the sustainable development goals in universities: The case of Sulitest. *Sustainability*, 13(23), Article 13215. <https://doi.org/10.3390/su132313215>
- Eppinga, M. B., Lozano-Cosme, J., de Scisciolo, T., Arens, P., Santos, M. J., & Mijts, E. N. (2020). Putting sustainability research into practice on the university campus: An example from a Caribbean small island state. *International Journal of Sustainability in Higher Education*, 21(1), 54–75.
- Etzkowitz, H., Webster, A., Gebhardt, C., & Terra, B. R. C. (2000). The future of the university and the university of the future: Evolution of ivory tower to entrepreneurial paradigm. *Research Policy*, 29(2), 313–330.
- Filho, W. L., Sierra, J., Price, E., Eustachio, J. H. P. P., Novikau, A., Kirrane, M., Dinis, M. A. P., & Salvia, A. L. (2024). The role of universities in accelerating the sustainable development goals in Europe. *Scientific Reports*, 14(1), Article 15464. <https://doi.org/10.1038/s41598-024-65820-9>
- Kieu, T. K., Singer, J., & Gannon, T. J. (2016). Education for sustainable development in Vietnam: Lessons learned from teacher education. *International Journal of Sustainability in Higher Education*, 17(6), 853–874.
- Rashid, Z., Rashid, S., & Rashid, M. (2024). Do environmental laws and green awareness promote sustainability in higher education: A policy guideline for sustainable development goals. *Asian Bulletin of Green Management and Circular Economy*, 4(1), 4–11.
- Thanh, N. V. (2024). Addressing issues about building the consciousness of environment protection for contemporary Vietnamese students. *Перспективы науки и образования*, 3(69), 719–737.
- Tien, N. H., Anh, D. T., Van Luong, M., Ngoc, N. M., Duc, L. D. M., & Dat, N. (2021). Sustainable development of higher education: A case of business universities in Vietnam. *Journal of Hunan University Natural Sciences*, 47(12).
- UNESCO. (2020). *Education for sustainable development: A roadmap*. UNESCO.
- United Nations Environment Programme. (2021, July 8). *UNEP's sustainable university framework* [Toolkit]. UNEP.

United Nations. (2015). *Transforming our world: The 2030 Agenda for Sustainable Development (A/RES/70/1)*. United Nations.

CRediT Author Statement

- **Acknowledgments:** The authors would like to express their sincere gratitude to the participating universities in Hanoi for their cooperation and support during the data collection process. We also thank the lecturers and students who voluntarily contributed their time and insights to this study.
 - **Funding:** This study received no external funding.
 - **Conflicts of interest:** The authors declare that there are no conflicts of interest regarding the publication of this paper.
 - **Ethical approval:** The study was conducted in accordance with ethical standards in educational research. Participation was voluntary, and all respondents were informed about the purpose of the study. Anonymity and confidentiality of participants were strictly ensured. The study did not involve any sensitive personal data and therefore did not require formal approval from an institutional ethics committee.
 - **Data and materials availability:** The datasets are available from the corresponding author upon reasonable request.
 - **Author contributions:** Nguyen Thi Thanh Nhan: Conceptualization, methodology, writing – original draft. Doi Van Tang: Corresponding author; supervision, validation, writing – review and editing. Nguyen Van Luong: Data curation, formal analysis. Ha Thanh Huong: Investigation, resources, data collection. Tran Trung Tinh: Project administration, final review and editing.
-

Processing and editing: Editora Ibero-Americana de Educação
Review, formatting, standardization, and Translation

