

GREENING SCHOOL IN MALAYSIA TOWARDS SUSTAINABLE DEVELOPMENT

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ABSTRACT

This concept paper discusses the implementation of greening schools in Malaysia in line with the Sustainable Development Goals (SDGs), particularly SDG 4 (Quality Education), SDG 13 (Climate Action), and SDG 15 (Life on Land). Climate change and ecological degradation pose significant threats to human life. The United Nations Conference held in Stockholm in 1972 emphasized sustainability in education as a key focus for developing environmentally conscious individuals. Based on the Sustainable Development Goals (SDGs) approach, greening schools represent sustainability efforts focused on school green spaces involving four domains: cognitive, socio-emotional, behavioral, and environmental. This aligns with UNESCO's main objective under the Green School Quality Standards to ensure that at least 50 percent of educational institutions achieve green school status by 2030. In response to global sustainability targets, the Malaysia Education Blueprint (2013–2025) highlights the importance of schools as comfortable and conducive learning institutions. Furthermore, the 2022 Transforming Education Summit, a collaboration between UNESCO and the Greening Education Partnership, launched new initiatives to green education through classroom teaching and learning for sustainable development. Therefore, greening schools serve as a foundation for educating students to achieve sustainable development goals in alignment with the SDGs.

Keywords: greening school, sustainable development, Sustainable Development Goals (SDGs)

1. INTRODUCTION

Global environmental issues such as climate change, air and water pollution, and biodiversity loss have compelled education systems to play a more active role in cultivating sustainable values and awareness. In Malaysia, the education system serves as a primary medium for promoting green cultural practices among the younger generation. Through *greening schools*, institutions can create learning environments that nurture responsibility toward the environment and society. The early concept of sustainable development was introduced as a more practical approach for delivering information and enhancing awareness among young people through the school curriculum. The United Nations Conference in Stockholm in 1972 on Environmental Education emphasized and prioritized sustainability education as a central focus in shaping environmentally conscious individuals.

Based on the United Nations Sustainable Development Goals (SDGs) framework, greening schools represents a sustainability initiative focused on developing green spaces within schools, encompassing four domains: cognitive, socio-emotional, behavioral, and environmental. Green spaces in schools can foster students' interaction with nature and positively influence environmental stewardship (Fernandes et al., 2023; Liu & Chen, 2021). Within the framework of UNESCO's Education for Sustainable Development Roadmap 2030, the implementation of sustainability programs aims to integrate cognitive, socio-emotional,

and behavioral learning dimensions related to environmental responsibility (UNESCO, 2020). The United Nations General Assembly (UNGA) has also formulated policies aimed at advancing sustainable development across all aspects of citizens' lives, including cognitive, social, and behavioral aspects that underpin the greening school initiative in Malaysia.

Aligned with these objectives, the United Nations 2030 Agenda for Sustainable Development emphasizes a comprehensive approach encompassing economic, social, and environmental dimensions to harmonize national development policies. Furthermore, the UNESCO Declaration at the World Conference 2024 calls upon all countries to ensure that education for sustainable development becomes a fundamental element at all levels of education. A collaboration has been established between UNESCO and the Greening Education Partnership (GEP) to develop Green School Quality Standards. The Sustainable Development Goals proposed by the United Nations in the 2030 Agenda for Sustainable Development (2015) further support the greening school concept, particularly Goal 3: Good Health and Well-being; Goal 7: Affordable and Clean Energy; Goal 11: Sustainable Cities and Communities; and Goal 15: Life on Land.

2. ISSUE AND PROBLEM STATEMENT

Education for sustainable development has been strengthened to cultivate a young generation equipped with skills, knowledge, values, attitudes, and behaviors related to the environment, economy, and society (UNESCO, 2020). Sustainable development has become an essential element in national policy formulation toward advancing all sectors, including environmental sustainability (Balakrishnan et al., 2020). In 2016, the first UNESCO Green Academy was launched in Ethiopia as part of an initiative addressing biodiversity, climate, water, and capacity building through education and sustainable development. This initiative provided benefits in terms of training and knowledge transfer from schools to communities. The academy focused on several Asia-Pacific countries, including Cambodia, Myanmar, Vietnam, Thailand, and Singapore. The involvement of these countries provided guidance for schools in addressing climate change.

However, not all Asia-Pacific countries are involved in sustainability programs due to the absence of a specific framework or standardized guidelines. Instead, schools in each country or state rely on varied and independent implementation approaches. At the Transforming Education Summit 2022, a collaboration between UNESCO and the Greening Education Partnership launched a new initiative to green education through classroom teaching and learning for sustainable development. This effort aimed to empower youth to address climate change issues toward sustainability. Nevertheless, challenges remain in implementing greening school initiatives due to incomplete and uneven application. Previous studies have mainly focused on differences in criteria and the number of schools evaluated within specific regions, influenced by cultural and social systems (Nan et al., 2006).

Given that the greening school program aims to provide every child with opportunities to acquire sustainable knowledge, skills, attitudes, and values, prioritizing sustainable development issues in teaching and learning must be effectively implemented. This aligns with UNESCO's primary goal in establishing Green School Quality Standards, which seek to ensure that at least 50 percent of educational institutions achieve sustainability benchmarks by 2030. However, greening school efforts are still insufficiently emphasized in terms of comprehensive implementation and empowerment at the school level. For example, studies

by Anthony Jnr (2021) and Syed-Abdullah et al. (2023) reveal that the main focus has been on low-carbon practices, waste reduction, and energy and water conservation.

Furthermore, sustainable practices such as environmentally friendly infrastructure development, energy efficiency, waste treatment, water resource management, transportation, and environmental education among students have become central to sustainable school development (Afiq et al., 2023; Mohamed et al., 2023). Research by Zawawi and Chee Sern (2024) also examined sustainable practices, knowledge, attitudes, and green skills among Technical and Vocational Education students, revealing high levels of awareness, acceptance, and positive attitudes toward green implementation in schools. Nevertheless, the lack of comprehensive guidelines for empowering multiple programs as part of greening school initiatives poses a constraint in achieving sustainable school goals (Bourke et al., 2022). In this context, the development of a specific framework for greening schools is crucial to ensure meaningful impact on society and the environment.

Over the past decades, climate change and environmental degradation have emerged as global challenges requiring urgent action across multiple sectors, including education. Education plays a significant role in enabling countries to achieve the Sustainable Development Goals (SDGs) (Dunlop & Rushton, 2022). In Malaysia, challenges in sustaining educational sustainability include limited financial resources and restricted teacher access to knowledge related to sustainable development (Adil et al., 2024). Additionally, Tsalis et al. (2020) emphasize that sustainable development is closely linked to sustainability concepts due to the interconnection between economic and environmental dimensions. In this regard, economic and environmental reporting is essential to evaluate the effectiveness of sustainability activities.

Syed-Abdullah et al. (2023) further highlight that integrating environmental education into the curriculum supports global aspirations toward sustainable development. Effective implementation requires collective commitment from all school members. Moreover, gender inequality issues also influence the implementation of sustainable development. Therefore, developing an analytical framework to enhance awareness and sustainable practices based on gender categories deserves attention (Leal Filho et al., 2023). Although previous research has examined school community acceptance of green school programs, implementation remains limited due to moderate levels of environmental awareness within schools.

Students tend to spend more time in green spaces, particularly those living in residential areas (Baro et al., 2021). School green spaces include roadside trees, playgrounds, gardens, and canopy vegetation. Generally, green spaces generate positive effects and should be established in all schools. Thus, green infrastructure development must consider equity dimensions to ensure students' well-being is fully achieved. An empowerment framework for greening schools must therefore emphasize cognitive, behavioral, socio-economic, and environmental development aspects. Bopape et al. (2021) assert that education is the most suitable institution to drive paradigm shifts in environmental behavior toward sustainable schools. Hence, educational institutions serve as primary platforms for achieving sustainable development. Educational institutions also promote the development of green schoolyards. Green schoolyards contribute positively to physical health, including increased health awareness, stabilized blood pressure, and reduced cardiovascular disease risk (Bikomeye et al., 2021). The relationship between green school environments and students' physical and socio-emotional activities is closely interconnected. Green spaces in neighborhoods also contribute to students' health and well-being (Van Velzen & Helbich, 2023; van den Bogerd

& Maas, 2024). However, not all students equally benefit from the social and physical development aspects of green space implementation. Therefore, urban green spaces should be actively developed with consideration of their impact on surrounding communities, especially children (Squillacioti et al., 2023).

The practical gap identified stems from the lack of a comprehensive greening school framework in Malaysia. Greening school initiatives are vital efforts by educational institutions to cultivate environmental awareness among students and the entire school community. In responding to global sustainability targets, the Ministry of Education Malaysia introduced the Malaysia Education Blueprint 2013-2025, which emphasizes transforming schools into comfortable and conducive learning institutions. However, Malaysia's education system remains largely focused on academic achievement, with limited emphasis on greening school initiatives or environmental awareness. Chee Sern et al. (2022) explain that implementing greening school initiatives can reduce environmental problems such as human-induced pollution. Nevertheless, improvements are still needed in managing greening school programs.

Sustainable implementation is therefore required to foster behavioral change and deeper appreciation of sustainability among students, supporting the long-term objectives of greening school initiatives. Baba et al. (2024) developed a comprehensive evaluation framework for school sustainability; however, it only covered environmental, social, and economic dimensions. Similarly, Balakrishnan et al. (2020) focused primarily on the importance of sustainable development. At the preschool level, both private and public institutions in Malaysia have introduced sustainable development initiatives since 2010. Education has strong potential as an agent of sustainable behavioral change among students (Ahmad et al., 2022). Furthermore, Thakkar and Gogia (2022) highlight that education for sustainable development in India plays a vital role in enhancing the education system, economic growth, and environmental responsibility. Clearly, education should not only focus on knowledge and skills but must also effectively integrate sustainable development principles.

3. RESEARCH OBJECTIVE AND QUESTION

This concept paper aims to analyze the implementation of greening schools in Malaysia. The guiding research question is: How is greening school implemented in Malaysia?

4. SIGNIFICANCE OF THE STUDY

This study strengthens environmental education practices in Malaysian schools and supports global sustainability agendas, particularly SDG 4 and SDG 13. Schools act as strategic platforms to nurture environmentally responsible future generations.

5. LITERATURE REVIEW

The Concept of Greening School

The term greening school refers to a transformation of the education system encompassing school operations and facilities, curriculum and professional development, as well as organizational practices and behaviors. According to UNESCO, the concept of greening school is defined as a learning institution that adopts a whole-institution approach to Education for Sustainable Development (ESD), particularly in addressing climate

change. Other perspectives describe greening schools as zero-waste school buildings (Kensler, 2012), conducive environments that promote energy and resource efficiency (Kerlin et al., 2015), and educational approaches focusing on skills, values, and knowledge related to sustainable development (Akinsemolu & Onyeaka, 2025; Bopape et al., 2021).

Greening School within Sustainable Development

The concept of sustainable development generally refers to development undertaken to meet present needs without compromising the needs of future generations. It encompasses three primary dimensions: environmental, social, and economic (UNESCO, 2017). In the context of greening schools, sustainable development forms the foundation for achieving school sustainability goals through practices and initiatives. The environmental dimension emphasizes conservation and preservation to maintain biodiversity balance. The economic dimension involves the contribution of environmental resources to national economic development. Meanwhile, the social dimension highlights the relationship between humans and the environment to ensure sustainability.

The implementation of greening schools emphasizes socio-emotional, cognitive, and behavioral dimensions (UNESCO, 2024). Sustainable development is essential in creating a sustainable environment. The concept was prominently introduced in the Brundtland Report (1987), which linked economic, social, and environmental relationships. To achieve the Sustainable Development Goals (SDGs), it is crucial that these three aspects are aligned and interconnected. The economic, social, and environmental dimensions constitute the core agenda for achieving the 17 SDGs.

In addition, three key dimensions in implementing Education for Sustainable Development (ESD) involve school-level initiatives integrating social, economic, and environmental perspectives (UNESCO, 2020). ESD aims to develop knowledgeable, skilled individuals with appropriate values, attitudes, and behaviors toward the environment, society, and economy. Through school-based education, students are empowered to make informed and responsible decisions to create a healthy environment. ESD transforms education systems toward sustainable development for a healthier future.

Sustainable Development Goals (SDGs) and Their Relationship with Greening School

The concept of sustainable development, based on environmental, economic, and social pillars, was formally introduced in the 1980s by the World Commission on Environment and Development. The Sustainable Development Goals (SDGs) became a major global agenda in 2015 to address environmental, economic, and social challenges. The SDGs were introduced under the United Nations Development Programme framework for the period 2015–2030, as a continuation of the Millennium Development Goals (MDGs) to achieve unmet targets (Ferri, 2015). They form part of the United Nations 2030 Agenda for Sustainable Development (2015), comprising 17 goals and 169 targets to address complex global challenges (Pradhan et al., 2017). Sustainable development is crucial to meeting present and future human needs. According to Rieckmann et al. (2017), achieving SDG targets depends significantly on Education for Sustainable Development (ESD) initiatives within the education sector. Teachers therefore face the challenge of cultivating high awareness among students regarding sustainable development goals. Education plays a vital role in fostering sustainability (UNESCO, 2006) and advancing SDG achievement (UNESCO, 2017). As emphasized by Wooltorton (2004), education is a key medium for shaping human perspectives grounded in sustainable values. Thus, the SDGs provide an essential direction for countries to meet global educational goals through comprehensive greening school initiatives.

Environmental Education in Greening School

Educational institutions play a critical role in sustainable development, particularly in addressing climate change. UNESCO highlights four key pillars in Education for Sustainable Development: improving access to quality basic education, reorienting existing programs, developing understanding and awareness, and providing training. Environmental education contributes to sustainable behavioral change through increased awareness of environmental stewardship (Akinsemolu & Onyeaka, 2025). However, challenges in implementing greening school programs include program management issues, limited collaboration among school members, time and financial constraints, and insufficient support from parents and external agencies (Letchumanan & Che Rose, 2021). Therefore, effective implementation of ESD programs across all schools is essential, making the development of a comprehensive greening school framework a key strategy.

Environmental education provides students with access to knowledge, skills, and values related to sustainability. It supports responsible behavior and enhances environmental quality (Zahrah et al., 2024). Access to quality environmental education is fundamental for addressing environmental issues (Aziz & Said, 2018; Sundari et al., 2020). Achieving effective environmental education requires strong commitment from students, teachers, and communities to bridge the gap between theory and practice.

Implementation of Greening School in Schools

Greening school is part of a broader UNESCO initiative toward sustainability that supports the SDGs. Its implementation emphasizes socio-emotional, economic, environmental, cognitive, and behavioral dimensions (UNESCO, 2015). Greening schools offer numerous benefits to school communities and surrounding areas, particularly in enhancing environmental awareness and sustainable practices. Teachers' integration of sustainable knowledge significantly impacts future generations. Environmental education supports sustainable development goals, including energy and water conservation within school environments (Hanifah et al., 2015). Efficient resource management reduces operational costs while contributing to ecological sustainability, including improved air quality, climate mitigation, and access to clean water. Research by Onyeaka and Akinsemolu (2024) confirms that environmental education supports sustainable development through energy efficiency and reduced water consumption in schools.

Implementation of Greening School in Malaysia

In Malaysia, greening school initiatives aim to support sustainable development goals. However, the implementation of Education for Sustainable Development (ESD) elements, particularly cognitive aspects, remains limited and unstructured. The term greening school is not formally used in official documents. Challenges in developing green spaces in primary schools include limited funding, insufficient knowledge, and lack of technical guidance (Aziz & Said, 2018). Space constraints in certain schools further restrict green infrastructure development. Although the Green School Model developed by Karunakaran and Verayiah (2018) provides implementation guidance, it primarily focuses on technical efficiency aspects such as energy, water, thermal performance, indoor air quality, lighting, acoustics, and spatial use. Operational costs, maintenance challenges, limited sustainability assessment knowledge, and community misunderstandings also hinder effective implementation.

Studies such as Mohamed et al. (2023) highlight greening initiatives as part of low-carbon practices, particularly through sustainable landscape design to monitor carbon emissions and

absorption. However, these studies often lack comprehensive integration of economic, social, and environmental dimensions. According to Anthony Jnr (2021), although many institutions practice green initiatives, a comprehensive framework is necessary to evaluate and strengthen sustainable development implementation. Green practices addressing climate change and promoting sustainable communities require large-scale, systematic methodologies for deeper impact (Chee Sern et al., 2022; Muhiddin et al., 2023). Sustainable practices in schools foster positive environmental attitudes among students. Early and continuous exposure to sustainability concepts encourages holistic perspectives and practical applications such as recycling and efficient energy and water use.

Despite growing awareness, implementation remains uneven due to limited emphasis on environmental sustainability within the national education system. To achieve sustainable development goals, collective commitment from all school members is essential to ensure sustainability education benefits society as a whole. The implementation of greening schools emphasizes socio-emotional, cognitive, and behavioral dimensions (UNESCO, 2024). Sustainable development is essential in creating a sustainable environment. According to the Brundtland Report (1987), the idea of sustainable development was introduced by linking economic, social, and environmental relationships. To achieve the Sustainable Development Goals (SDGs), it is important that these three aspects are aligned, as they are interrelated. Economic, social, and environmental development play significant roles in environmental conservation. These three dimensions form the core agenda in achieving the 17 SDGs.

Furthermore, the three main dimensions in implementing Education for Sustainable Development (ESD) involve school initiatives that integrate social, economic, and environmental perspectives (UNESCO, 2020). ESD develops knowledgeable and skilled individuals equipped with appropriate values, attitudes, and behaviors toward the environment, society, and economy. Through education in schools, students are able to make informed and responsible decisions to create a healthy environment. ESD transforms the education system toward sustainable development to ensure a healthier future.

Greening School in Sustainable Development

The concept of sustainable development generally refers to development undertaken to meet present needs without compromising the needs of future generations. It encompasses three key dimensions: environmental, social, and economic (UNESCO, 2017). In the context of greening schools, sustainable development serves as the foundation for achieving school sustainability goals through practices and initiatives. The environmental dimension focuses on conservation and preservation to maintain biodiversity balance. The economic dimension highlights the contribution of environmental resources to national economic development. Meanwhile, the social dimension refers to the relationship between humans and the environment in sustaining long-term well-being. The implementation of greening schools emphasizes socio-emotional, cognitive, and behavioral dimensions (UNESCO, 2024). Sustainable development is crucial for creating a sustainable environment. As stated in the Brundtland Report (1987), sustainable development integrates economic, social, and environmental relationships. To achieve SDG targets, these three dimensions must be aligned due to their interdependence. Together, they represent the core agenda of the 17 Sustainable Development Goals. Moreover, the implementation of ESD at the school level involves integrating community, economic, and environmental dimensions (UNESCO, 2020). ESD fosters individuals who are knowledgeable, skilled, and ethically responsible toward environmental, social, and economic sustainability. Through effective educational integration,

students can make wise and responsible decisions to promote healthy environments in the future.

Sustainable Development Goals (SDGs) and Their Relationship with Greening School

The concept of sustainable development, based on three main pillars—environment, economy, and society—was introduced in the 1980s by the World Commission on Environment and Development (WCED). The Sustainable Development Goals (SDGs) became a major global agenda beginning in 2015 to address environmental, economic, and social challenges. The SDGs were introduced by the United Nations for the period 2015–2030 as a continuation of the Millennium Development Goals (MDGs) to achieve previously unmet targets (Ferri, 2015). They form part of the 2030 Agenda for Sustainable Development (United Nations, 2015), consisting of 17 goals and 169 targets designed to address complex global challenges (Pradhan et al., 2017).

Sustainable development is vital to meeting present and future human needs. According to Rieckmann et al. (2017), achieving SDG targets depends significantly on Education for Sustainable Development (ESD) initiatives in the education sector. In this regard, teachers face considerable challenges in cultivating students with high awareness of sustainable development goals. Education plays a critical role in promoting sustainability (UNESCO, 2006) and advancing SDG achievement (UNESCO, 2017). As noted by Wooltorton (2004), education is a crucial medium for shaping human perspectives grounded in sustainable values. Therefore, the SDGs provide an important direction for nations to achieve global goals, particularly in education, through comprehensive greening school initiatives.

Environmental Education in Greening School

Educational institutions play a vital role in sustainable development, particularly in addressing climate change. UNESCO emphasizes four key pillars of Education for Sustainable Development: improving access to quality basic education, reorienting existing programs, developing understanding and awareness, and providing training. Sustainable development education aligns with national environmental policy objectives. Environmental education contributes to behavioral change through awareness of environmental stewardship (Akinsemolu & Onyeaka, 2025). However, challenges in implementing greening school programs include program management issues, limited collaboration among school members, time and financial constraints, and insufficient support from parents and external agencies (Letchumanan & Che Rose, 2021). Therefore, ESD programs must be effectively practiced in all schools, making the development of a comprehensive greening school framework a key strategy toward sustainable development. Environmental education provides students with essential knowledge, skills, and values related to sustainability. It supports responsible behavior and improves environmental quality (Zahrah et al., 2024). Access to quality environmental education is crucial in addressing environmental issues (Aziz & Said, 2018; Sundari et al., 2020). Studies show that sustainability programs implemented according to established guidelines help balance human–environment relationships. Creating environmentally conducive learning environments is essential for curriculum effectiveness. Achieving quality environmental education for sustainability requires strong commitment from students, teachers, and the community to continuously bridge the gap between theory and practice.

Implementation of Greening School in Schools

Greening school is part of a broader UNESCO initiative toward sustainability in support of the SDGs. Its implementation emphasizes socio-emotional, economic, environmental,

cognitive, and behavioral dimensions (UNESCO, 2015). Greening school initiatives provide numerous benefits to school communities and local residents, particularly in enhancing environmental awareness and sustainable practices. Teachers' integration of sustainable knowledge significantly influences future generations. The relationship between education and sustainability contributes to the development of environmentally responsible behavior (Hanifah et al., 2015). Environmental education includes key elements such as energy and water conservation within school environments to achieve sustainable development goals. Efficient resource use through greening school practices minimizes institutional costs while promoting ecological sustainability. Wise use of water and energy directly contributes to improved air quality, climate mitigation, and access to clean drinking water. Research by Onyeaka and Akinsemolu (2024) indicates that environmental education supports sustainable development through energy efficiency and reduced water consumption in school settings.

Table 1

Summary of Literature Review: Concept, Dimensions, and Relationship Between Greening School and Sustainable Development

Main Aspect	Description	Sources and Research Findings
Greening School Concepts	Transformation of the education system in terms of operations, curriculum, professional development, and organizational practices that emphasize sustainability and climate action. Defined as a whole-institution approach to Education for Sustainable Development (ESD).	UNESCO (2024); Kensler (2012); Kerlin et al. (2015); Akinsemolu & Onyeaka (2025); Bopape et al. (2021)
Sustainable Development Dimensions	Integrates three core dimensions: environmental (biodiversity conservation), social (human–environment relationships), and economic (contribution to national development). Supports the 17 Sustainable Development Goals (SDGs).	UNESCO (2015, 2017); Brundtland Report (1987)
Dimensions of Education for Sustainable Development (ESD)	Emphasizes students' cognitive, socio-emotional, and behavioral dimensions. Develops knowledgeable, skilled, and ethically responsible individuals toward the environment.	UNESCO (2020, 2024)
Role of SDGs in Greening School	The SDGs serve as the foundation of global education direction (Goals 4, 13, and 15). ESD contributes to achieving SDG targets by fostering awareness and sustainable action among students.	United Nations (2015); Rieckmann et al. (2017); Ferri (2015); Woollorton (2004)
Environment and Sustainable Development	Environmental education functions as a medium for cultivating sustainability values in schools. Four key pillars: access to quality education, program reorientation, awareness development, and training (UNESCO).	UNESCO (2006); Zahrah et al. (2024); Letchumanan & Che Rose (2021); Akinsemolu & Onyeaka (2025)

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Implementation of Greening School	Supports the SDGs through resource-saving practices, waste reduction, green design, and fostering sustainable attitudes. However, implementation in Malaysia remains unstructured and varies across schools.	Aziz & Said (2018); Hanifah et al. (2015); Chee Sern et al. (2022); Anthony Jnr (2021); Mohamed et al. (2023)
Challenges in Implementing Greening School	Financial constraints, limited teacher knowledge, lack of access to technical guidelines, and cultural and social differences among schools result in inconsistent implementation.	Karunakaran & Verayiah (2018); Zawawi & Chee Sern (2024); Muhiddin et al. (2023)

6.0 CONCLUSION

Overall, the implementation of the greening school concept plays a significant role in strengthening Education for Sustainable Development (ESD) in Malaysia. This approach not only fosters awareness of environmental conservation but also develops students' skills, values, and attitudes to enable them to adapt to the challenges of climate change and global ecological degradation. Through the integration of socio-emotional, cognitive, and behavioral elements within the education system, schools can function as transformative agents toward building knowledgeable and environmentally responsible communities. This initiative is aligned with the Sustainable Development Goals (SDGs), particularly United Nations SDG 4 (Quality Education), SDG 13 (Climate Action), and SDG 15 (Life on Land), ensuring that education plays a strategic role in maintaining balance between humans and the environment. In this regard, this concept paper emphasizes the need for a comprehensive and contextual greening school framework to be applied in Malaysian educational institutions. The implementation of sustainability policies, the strengthening of teachers' roles, and the expansion of school community involvement in green initiatives should be practiced holistically. These efforts not only contribute to reducing negative environmental impacts but also reinforce a culture of sustainability as the foundation of sustainable development. Therefore, through integrated collaboration among government agencies, the private sector, educational institutions, and the wider community, the greening school initiative can be realized as a sustainable and long-term educational transformation agenda.

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Conflicts of Interest: The authors declare no conflicts of interest.

Abbreviations

The following abbreviations are used in this manuscript:

SDG	Sustainable Development Goals
UNGA	United Nations General Assembly
MDG	Millennium Development Goals

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