Training Students Towards Sustainable Development Goals at Key Universities of Education in Central Vietnam: Case Studies in Hue and Da Nang

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Abstract: Implementing the strong commitment to the United Nations' sustainable development goals, on May 10, 2017, the Prime Minister of Vietnam issued Decision No. 622/QD-TTg promulgating the "National Action Plan to Implement the 2030 Agenda for Sustainable Development." Accordingly, ensuring the quality of education is one of the 17 common goals to be achieved. For higher education, the pedagogical sector has an important responsibility in the goal of training high-quality human resources, aiming to build a team of global citizens, meeting the social requirements of the 4.0 industrial revolution, and deep international integration. At key pedagogical universities in the Central region, improving the quality of teacher training towards the goal of building global citizens has been carried out for many years. However, in addition to integrating the educational goal of sustainable development" into advanced training programs, the implementation of experiential activities and international cooperation is still limited. From the practice at the University of Education, Hue University, and the University of Education, Da Nang University, the article mentions the model of teacher training - human resources in the period of the 4.0 technology revolution, aiming at the goal of sustainable development - in the following three aspects: (1) building advanced training programs (increasing the duration of foreign language training, information technology, skills training, experiential education, application) and having high connectivity/interoperability; (2) enhancing international cooperation activities, international student exchanges, multicultural exchanges,... and (3) diversifying training types, meeting the goal of learning to serve life.

Keywords: Global citizen, sustainable development goals, University of Education, Hue, Da Nang.

1 Introduction
Sustainable development has become an inevitable trend and a shared global objective

in the 21st century, as affirmed in the United Nations' 2030 Agenda with 17 Sustainable Development Goals (SDGs) (United Nations, 2015). In this context, education—particularly higher education—plays a pivotal role in shaping the mindset, skills, and attitudes of younger generations to meet the demands of sustainable development. Higher education institutions are not only responsible for training high-quality human resources but also serve as hubs for spreading awareness and driving actions toward sustainability within the broader community.

In Central Vietnam, the University of Education, Hue University (established in 1957), and the University of Education, the University of Danang (established in 1975, formerly Quang Nam – Danang Teachers' College), are two key institutions for teacher education. Both hold strategic positions within Vietnam's higher education system, ranking 11th and 9th, respectively, in the Vietnam National University Rankings (VNUR, 2025). With multidisciplinary and multisectoral frameworks, these universities have continuously improved training quality, modernized infrastructure, strengthened research, and expanded international integration.

Each institution pursues its own educational philosophy and development direction: Hue University focuses on training outstanding educators and scientists with "Humanities, Liberal, Constructivism" who actively contribute to community development; Danang University emphasizes the motto "Comprehensive, Liberal, Creative, Experimental" to promote holistic learner development. Despite their differences, both institutions are recognized for pioneering efforts in implementing activities related to Education for Sustainable Development (ESD). However, the integration of sustainable development content into the training programs still faces multiple challenges, such as the lack of specific policies, limited resources, and uneven awareness among stakeholders. Therefore, it is imperative to examine the current situation and propose effective solutions to enhance student training for sustainable development at these two key teacher training institutions. This effort contributes to concretizing major national directives in the fields of education and sustainable development.

Furthermore, integrating sustainability into higher education curricula holds profound significance in building a just, prosperous, and environmentally friendly society. Higher education not only provides skilled human resources but also drives scientific research, innovation, and the development of critical thinking—essential factors in addressing global challenges such as climate change, poverty, and social inequality.

In teaching practice, the integration of sustainable development content also contributes to the formation and development of essential skills for students, such as deep awareness of the relationship between humans and the natural–social environment; the ability to solve problems creatively and responsibly; systems thinking, long-term thinking, and decision-making based on sustainability principles. At the same time, universities can play a vital role in fostering green, clean, and beautiful learning environments, thereby cultivating environmental awareness and a sustainable lifestyle among learners.

In light of the practical benefits of integrating sustainable development content into education, university students not only develop the knowledge, skills, and attitudes aligned with those of global citizens but are also encouraged to embrace a strong sense of community responsibility—both at the local and international levels—thereby contributing to the building of a just, peaceful, and sustainable world. This quality

also serves as a competitive advantage for students in the labor market, enhancing the reputation and position of higher education institutions amid deepening international integration.

In conclusion, sustainable development in higher education is not merely a goal but a driving force for the comprehensive transformation of the education system towards harmonious development across economic, social, and environmental dimensions, ensuring benefits for both current and future generations.

2 Research Content and Methodology

2.1 Content and Scope of the Study

The study aims to assess the current state of student training in alignment with sustainable development principles at two key teacher training institutions in Central Vietnam—namely, the University of Education, Hue University, and the University of Education, University of Danang—while also proposing solutions to enhance the effectiveness of training in line with sustainable development goals. The scope of the research focuses on the curriculum, teaching and learning activities, and the awareness of both students and faculty members at these two institutions in the current context.

2.2 Research Methodology

We use a theoretical research method to synthesize and analyze relevant documents related to enhancing the quality of education while also providing a foundation for both theoretical and practical aspects of the study.

3 Results and Discussion

3.1 Theoretical Foundations

Concept and Role of Education for Sustainable Development

Sustainable development is understood as development that meets the needs of the present without compromising the ability of future generations to meet their own needs (Borowy, 2013). Education for Sustainable Development (ESD) aims to equip learners with the knowledge, skills, and values necessary to build a sustainable society (UNESCO, 2017).

Higher Education and Its Role in Sustainable Development

Higher education institutions play an essential role in training human resources, promoting research, and fostering a mindset of sustainable development. They also serve as environments that nurture critical thinking, problem-solving skills, and social responsibility—key competencies for realizing the Sustainable Development Goals (SDGs).

International Experiences

Several international models, such as the "Green University" initiative in China (Geng, Y., et al., 2013) and "Campus Sustainability" in the United States (Association for the Advancement of Sustainability in Higher Education, 2015), have demonstrated the importance of strategic commitment from institutional leadership and the active participation of both students and faculty in implementing Education for Sustainable Development (ESD).

3.2 The Current Status of Training Students toward Sustainable Development

Overview of the Academic Curriculum

Both universities offer multidisciplinary training programs in education, natural sciences, and social sciences, with a comparable number of credits (130–132 credits). However, while the Hue-based institution focuses primarily on traditional teacher training disciplines, the Da Nang-based institution has expanded its offerings to include non-pedagogical majors. Both schools emphasize the development of subject expertise, teaching skills, and research capacity; however, the integration of sustainable development content into the formal curriculum remains largely limited to extracurricular activities.

Integrating Sustainable Development into the Curriculum

Some institutions, such as Vietnam National University, Hanoi, have taken the lead in integrating Education for Sustainable Development (ESD) into their training programs. The university ranked **325th** in the QS World University Rankings: Sustainability 2025 (QS Quacquarelli Symonds, 2024), placing first in Vietnam and 51st in Asia. However, the level of integration of this content at the two pedagogical universities in Hue and Da Nang remains unclear in the ranking, appearing to be symbolic and lacking coherence.

Evaluating Students' Awareness and Understanding

Students at both institutions demonstrate a relatively good awareness of various aspects of sustainable development, such as environmental protection and social equity. However, their practical behavior remains inconsistent and is not yet clearly reflected in academic activities or personal practices.

Key Strengths and Remaining Challenges

The notable strengths include a diverse training program, a team of experienced lecturers, and a rich array of extracurricular activities. However, a major limitation is the lack of coordination between functional units in integrating sustainable development content, leading to an incoherent and ineffective implementation.

3.3 Sustainable Development-Oriented Training Models

Development of Advanced Training Programs

Both universities are working towards improving the quality of education by increasing the focus on foreign languages, information technology, and soft skills and strengthening sustainable development content. For example, Huế University has developed a bilingual Mathematics-English program. Students of geography and biology majors participated in field trips to Bach Ma National Parks and Da Lat City, where they applied theories of nature conservation into practice. In particular, regarding the program, Hue University of Education has evaluated the Bachelor of Mathematics Education program according to the ASEAN AUN-QA standards, which is an important step to help the school meet the common requirements of the ASEAN Community, thereby easily integrating deeper into the regional and international markets, while Da Nang University focuses on training STEM teachers integrated with digital technology. Students have the opportunity to participate in the "Creative STEM Teaching" Competition. In addition, the Faculty of Information Technology implements the "AI in Education" course to help students get acquainted with artificial intelligence—a new trend in education. Both universities are also experimenting with interdisciplinary and interlinking models to adapt to societal needs, and they have implemented bilingual training programs for many fields. They have also developed a module on "IT Application in Teaching" with a significant amount of hands-on practice in modern lab facilities.

Strengthening international cooperation and cultural exchange

Both universities have large, diverse, and dynamic student populations, which is a favorable factor for implementing international cooperation programs. Hue University has signed agreements with several institutions in countries such as Laos, Japan, South Korea, and Thailand. Meanwhile, Da Nang University stands out with its Erasmus+ program and collaborations with universities in Europe and Australia. Activities such as conferences, student exchanges, bilingual teaching, and international research are regularly maintained.

Diversifying training methods linked to real-world practice

Both universities have implemented various short-term courses, distance learning programs, and collaborations with businesses. Hue University of Education offers short-term training programs for high school teachers and environmental education and soft skills workshops, while Da Nang University of Education organizes soft skills courses and digital competency training for teachers in the Central region and short-term courses teaching Vietnamese to foreigners (especially Lao students study these courses a lot). Additionally, experiential education is a key focus, with both universities hosting annual "Experiential Education" programs where students participate in teaching and community service activities in remote areas. For instance, Hue University students engage in fieldwork in A Luoi district, while Da Nang University runs a summer volunteer campaign.

3.4 Solutions to Enhance the Effectiveness of Education Toward Sustainable Development

In practical terms, in order to organize international cooperation activities and multicultural exchanges, students at both Hue and Da Nang Pedagogical Universities must be numerous, culturally diverse, and dynamic to offset the limitations in resources for large-scale activities. In the academic year 2023-2024, Hue Pedagogical University trains 9,918 full-time undergraduate students and other system students, 1,854 master's students, and 40 doctoral students (Hue Pedagogical University, 2024). As for Da Nang Pedagogical University, it has maintained a training scale of over 14,000 students (full-time undergraduates and other systems). Moreover, the number of international students enrolled in programs at Da Nang Pedagogical University (322 international students from 14 different countries) is the highest among the member units of Da Nang University (Da Nang Pedagogical University, 2023). Thus, both universities have a very large scale of education. Based on this practical reality, we propose several solutions to enhance the effectiveness of training toward sustainable development, specifically:

Firstly, developing an advanced training program

Both universities focus on the development and construction of their programs, with curriculum design involving input from stakeholders. Quality assurance and accreditation of training programs have become an increasing priority for both institutions. When constructing a curriculum aimed at sustainable development, the following aspects need to be specifically addressed:

Curriculum and teaching method innovation: It is essential to enhance the integration of Education for Sustainable Development (ESD) into both core and specialized subjects through active learning, project- based learning, and experiential learning methods. This requires a consistent approach in terms of materials and implementation strategies within the institution.

Enhancing faculty capacity: Strengthening faculty training, participation in international workshops, and collaborative projects helps faculty members update their knowledge and improve their ability to teach sustainable development concepts.

Creating a green and sustainable learning environment: In Hue, initiatives like "Green Sunday" encourage students to participate in cleaning up the campus environment. The volunteer green shirts are seen picking up plastic bags, waste, and bottles to gather them for disposal and recycling in accordance with regulations. These tangible actions have not only improved the campus environment, making it cleaner and waste-free, but have also created a more open and pleasant learning space. These activities improve the learning experience and raise student awareness about environmental protection and sustainable development (Hue Today, 2024).

In Da Nang, activities such as international expert seminars, the "Eco-school" model, and the application of renewable energy ideas are being promoted to establish a sustainable campus environment. The environmental protection and promotion of a green, sustainable lifestyle project led by students in Da Nang has created widespread awareness of sustainable living, producing many positive outcomes (University of Danang, 2025).

Promoting research and international cooperation: Participation in international research networks enables both faculty and students to access new knowledge and provides opportunities to share experiences in tackling global challenges such as climate change, poverty, and social inequality.

Secondly, enhancing international cooperation and multicultural exchange

International Cooperation

Both universities of education in Hue and Da Nang have a long history of international cooperation, particularly in the fields of education and research on sustainable development.

In Hue, a key program is the Okayama-Hue International Master's Program, which has been running since 2007 in collaboration with Okayama University (Japan). Over 15 cohorts have graduated, with 117 students receiving master's degrees in environmental sustainable development. Additionally, many faculty members and students have been sent abroad for PhD and master's programs, as well as short-term training in Japan, enhancing their professional capacity, particularly in the field of education. The university also runs a master's program in theoretical and mathematical physics in collaboration with National Yang Ming Chiao Tung University (Taiwan) since 2016. Furthermore, cooperation with the SEAMEO Organization has allowed the university to host international educational events such as the 5th International Storytelling Festival and provide advanced training for faculty members of Savannakhet Pedagogical College (Laos). In Da Nang, the university has actively participated in the Erasmus+ "EDU4SD" project, an EU initiative focused on education for sustainable development. Additionally, the university collaborates with the French Institute for Education (Institut Français d'Éducation) to organize bilingual seminars on the theme of "Global Citizenship Education." The university also hosts an annual "International Student Exchange Summer Camp," involving students from Thailand, the Philippines, Malaysia, and other countries, providing a multicultural learning environment within the university campus.

Cultural Exchange

Cultural exchange activities at both universities are becoming increasingly diverse

and are organized frequently. Students in Hue participate in events such as the "Traditional Costumes of ASEAN Countries" exhibition, held as part of the Hue Festival Week, which is a significant regional exchange activity. Meanwhile, Da Nang organizes and participates in the "Vietnam – ASEAN Festival," which attracts a large number of students from ASEAN countries to engage with Vietnamese students. Additionally, universities in the region have collaborated with both universities through memorandums of understanding, enhancing students' understanding and global citizenship skills. These multicultural exchange programs, integrated with content related to sustainable development goals, provide a shared platform for students from different countries to exchange ideas, collaborate, and take action for global benefit. This process gradually overcomes political and social institutional differences between countries, leading towards deeper integration and modernization. Thirdly, diversifying training formats to be more practical.

The two universities of education in Hue and Da Nang are actively promoting the reform of teaching methods, aiming for a flexible and diverse model that combines theory with practice. This approach aligns with the sustainable development needs of the central region and meets the goal of learning for life.

Short Courses and Online Training

In Hue, courses on "Environmental Education" are widely offered to various groups of students and learners at the university through regular, short-term, or integrated programs, both in-person and online, contributing to the spread of sustainable development education. Meanwhile, in Da Nang, the university collaborates with the city's Department of Education to organize training courses on "Digital Skills Training for Teachers: A Foundation for Digital Transformation," helping to update teaching methods in line with the ongoing digital transformation in education.

Support for lifelong learning and career guidance

Hue has developed the "Open Learning Community" model, providing opportunities for alumni and teachers from neighboring provinces to return for further education through specialized courses such as "Applied STEM Education." Meanwhile, in Da Nang, the university regularly organizes career guidance workshops, such as "Training Primary School Teachers in the Context of General Education Reform," connecting students with employers in the region.

Practical Cooperation

Both universities focus on expanding relationships with businesses, the network of secondary schools, and relevant organizations, creating favorable conditions for students to engage in internships, scientific research, and entrepreneurial activities. This approach helps improve the quality of education while also enhancing the applicability and adaptability of students to the real-world work environment after graduation.

4 Conclusion and Recommendations

4.1 Conclusion

This study has analyzed the current situation and proposed solutions to enhance the effectiveness of student training aligned with sustainable development goals at two prominent teacher training universities in Central Vietnam. The findings indicate that

both Hue University and the University of Danang have made significant progress in integrating sustainability into their curricula. However, there remains a need to improve students' awareness and practical actions. Establishing a green learning environment, innovating teaching methods, enhancing lecturer capacity, and strengthening international cooperation are key factors in achieving sustainability goals in education.

The flexible approach presented not only promotes education for sustainable development but also facilitates academic exchange and international student mobility. This aligns with the spirit of Decision No. 452/QĐ-TTg dated February 27, 2025, issued by the Prime Minister on the planning of the higher education and teacher training network through 2050, specifically applied at Hue University and the University of Danang.

However, the program should not overly focus on theoretical aspects of the SDGs. Instead, it should foster students' creativity and their capacity to address real-world problems, aiming to apply these abilities to local challenges—thereby enhancing the practical sustainability of education.

4.2 Recommendations

The proposed solutions can initially help address the lack of effective teaching methods for sustainable development at the two institutions. For long-term effectiveness, it is necessary to:

• Systematically integrate sustainable development content into the official curriculum.
• Innovate teaching methods towards practical, project-based, and community-oriented approaches.
• Enhance lecturer capacity while promoting research and international collaboration.
• Flexibly implement extracurricular and sustainable entrepreneurship activities to engage students.

For students, it is essential to develop key competencies such as global awareness, problem-solving, intercultural communication, digital literacy, and foreign language proficiency—moving toward the model of global citizenship. These programs should be implemented in a flexible manner, avoiding undue pressure or overlapping workloads.

For the universities, comprehensive innovation will help improve education quality, enhance global integration, and create competitive advantages, and at the same time, preserve their unique identity in the process of modernization and urbanization. Based on this foundation, the two universities can build distinctive experiences and take a pioneering role in strategically embedding sustainable development goals into the future university village model.

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