



Environmental Education in Non-Governmental Organizations: The Significant Contributions of United Nations Units

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ABSTRACT

The understanding of environmental education initially focused on outdoor learning experiences. However, it has evolved into a nature-centered approach that addresses broader environmental issues through comprehensive curriculum development. Initially, it pivoted around extracurricular learning environments, emphasizing teacher roles and enhancing students' knowledge through outdoor activities. As environmental concerns intensified, this education began to also emphasize nature conservation. This study examines the roles and contributions of United Nations units (UNESCO, UNEP, and UNDP) in advancing environmental education and investigates the influence of global NGOs in this domain. The primary objective is understanding the importance of the "Education for Sustainable Development" framework within environmental education and discerning the impact of NGOs on its trends. Results are expected to underline the significance of a nature-centric educational approach and the increasing role of international organizations in molding its future trajectory.

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1. Introduction

The relentless pursuit of advanced agricultural techniques, industrial practices, and urbanization, with the objective of enhancing human convenience, has significantly undermined the preservation of natural resources, biodiversity, and sustainability of human existence. As noted by Bonnet (1999), the decade of the 1970s was a critical period, witnessing heightened awareness about the irreversible damage inflicted on ecosystems by human activities. Consequently, environmental education has surfaced as an essential tool to reconcile the human-nature dichotomy and mitigate environmental issues induced by human activities. This field of study extends beyond the biophysical environment to address the consequential social, societal, and economic dilemmas (Kopnina, 2020).

The advent of environmental education can be traced back to individual efforts that gradually evolved into global conventions, shaping the strategies related to the nature and goals of this form of education. The pedagogical roots of environmental education were established by Strapp and his students at Michigan University in 1969. The educational model they proposed sought to nurture responsible citizens through a learning process that encapsulates knowledge acquisition about the biophysical environment, consciousness of its challenges, and a solution-oriented attitude (Castro, Fernandez, & Colsa, 2021). The 1975 Belgrade Conference emphasized the interdisciplinary character

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of environmental education, accentuating the cultivation of values and societal welfare. It underscored the importance of active student involvement, both for the immediate benefits and future gains. Furthermore, the 1977 Tbilisi Declaration defined environmental education as a process that nurtures personal and group attitudes, motivation, knowledge, commitment, and skills to preempt novel challenges, alongside promoting environmental awareness (Biedenweg, Monroe, & Wojcik, 2013; Marouli, 2021).

During the 1980s, a new curriculum emerged in England, integrating four distinct fields—environmental studies, out-of-school education, conservation education, and urban studies. This integrated curriculum, embodying an environmental perspective, has progressively gained attraction. With environmental concerns capturing societal attention in the contemporary world, they have become a key driver in educational institutions. Environmental education, informed by a holistic philosophy, has matured into an interdisciplinary approach encompassing local to global contexts (Kassas, 2002; Kopnina, & Shoreman-Ouimet, 2015; Tilbury, 1995). The concept of "sustainable development" has emerged, acknowledging the need to balance environmental preservation with meeting the current and future needs of humanity (Bonnet, 1999; Stein, Andreotti, Suša, Ahenakew, & Čajková, 2022).

In response to the new comprehension of sustainable development, the United Nations organized the Environment and Development Conference in Rio in 1992, where conventions on sustainable development were proposed and subsequently implemented globally. Key outcomes such as the Rio Declaration, Agenda 21, Convention on Biological Diversity (CBD), and Framework Convention on Deforestation have encouraged nations and societies to embrace this understanding (Steele & Rickards, 2021; Teksöz, 2014).

Non-governmental organizations (NGOs) have recently transcended their conventional roles of curriculum modification to promote lifelong learning, capacity enhancement, and participation, with a distinct emphasis on social content. These organizations are acknowledged for their significant impact and capacity-building potential, basing their approach on a structured framework. The pursuit of societal transformation towards sustainability necessitates collaboration with engaged partners, extending beyond the confines of educational institutions (Bezeljak, Scheuch, & Torkar, 2020). A process of reconceptualization has initiated the reconstruction of shared values and collective contributions in the realm of environmental education, involving a holistic appraisal of individuals in their personal and societal contexts. The approach underscores the development of cognitive, skill-based, and ability-related aspects aligned with the understanding of sustainable living on earth (Tilbury et al., 2003; Özdemir, 2007).

Present trends underscore the crucial role that NGOs play and emphasize the necessity of establishing cross-sectoral partnerships for promoting sustainable lifestyles and driving reforms. In this context, forging robust partnerships among NGOs, governments, other NGOs, media, and academia is imperative. Such collaborative agreements emphasize the growing momentum of 'education for sustainable development' and the progressive shift of environmental education towards sustainability (Tilbury et al., 2003; Onopriienko, Onopriienko, Petrushenko, & Onopriienko, 2021).

Environmental education has undergone a transformative journey, evolving from its roots in the natural sciences to encompass a broader spectrum, including out-of-school and conservation education. The progression has seen a shift from a focus on the sciences to a more holistic approach that embraces various educational dimensions. Initially, it delved into the intricacies of nature's interrelationships, often emphasized in out-of-school education, involving observations of nature, understanding the interplay among flora, fauna, and ecological systems. This approach broadens the role of the teacher and creates diverse learning environments beyond traditional classrooms. It seeks to develop students' knowledge, skills, and awareness through engaging outdoor activities. As environmental education continues to evolve, it extends its reach to conservation education, which

aims to raise awareness about nature protection and promote sustainable practices in response to pressing environmental challenges.

The primary goal of this study is to offer valuable support to key units within the United Nations Educational, Scientific and Cultural Organization (UNESCO), United Nations Environment Program (UNEP), and United Nations Development Program (UNDP), alongside prominent international Non-Governmental Organizations (NGOs) such as the Foundation for Environment Education (FEE), Live & Learn Environmental Education (L&L), and the World Wildlife Fund (WWF). These organizations have made significant contributions to the field of environmental education. The study is driven by a desire to shed light on the substantial impact of non-governmental organizations in contemporary developments and underscore the importance of the 'education for sustainable development' model within the realm of environmental education. The overarching aim is to make a scholarly contribution that effectively addresses the identified problem statement and provides a comprehensive understanding of the role of these organizations in advancing environmental education.

Despite the evident role of NGOs in environmental education, a comprehensive study analyzing their contributions, methodologies, and impact is notably absent in the existing literature. Addressing this gap, the present research seeks to investigate the role of NGOs in environmental education through a detailed document analysis. The study aims to support key international organizations, such as UNESCO, UNEP, UNDP, and prominent NGOs, by illuminating the substantial impact of these entities in contemporary environmental education developments. By doing so, it aspires to offer a scholarly contribution that advances the understanding of 'education for sustainable development' within the environmental education domain.

2. Methodology

2.1. Research Approach

In this study, a qualitative research approach was employed to gain a deeper understanding of the subject matter. Qualitative research enables a comprehensive exploration of complex phenomena, uncovering underlying motives, attitudes, and behaviors of individuals and groups (Yıldırım & Şimşek, 2018; Creswell, 2019). The document review method, a fundamental qualitative technique, was chosen to systematically analyze existing written materials and derive new insights.

2.2. Selection and Access of Source Materials

The selection of source materials was a critical aspect of this study. Primary data sources encompassed academic articles, books, and reports focusing on the "education for sustainable development" framework within the context of environmental education. Key seminal works, such as those by Tilbury et al. (2003) and Bonnet (1999), were deemed fundamental reference points in this field. These works were chosen for their influence and significance within the domain.

Access to these source materials was facilitated through scholarly databases, academic libraries, and reputable online repositories. The search process involved the use of specific keywords related to "education for sustainable development," "environmental education," and relevant authors' names. The inclusion criterion was based on relevance, scholarly rigor, and publication date, with a focus on recent and authoritative sources.

2.3. Data Collection Process

The data collection process was meticulous and systematic. Academic articles, books, and reports were gathered, and a thorough review of each document was conducted. The examination focused on key aspects, including the framework, methodologies, findings, and implications related to "education for sustainable development" in environmental education.

Keywords such as "sustainability education," "environmental learning," "sustainable pedagogy," and "ecological literacy" guided the search for relevant materials. The time frame for the selection of

documents ranged from the early 1990s to the present, ensuring a comprehensive understanding of the evolution and current state of the field.

2.4. Data Analysis and Classification

The collected documents underwent a meticulous and structured analysis. The descriptive analysis technique was employed to categorize the data into themes aligning with the research objectives (Miles & Huberman, 2015: 74). Themes were derived based on recurring concepts, ideas, and patterns identified during the analysis process.

Validity and reliability measures were implemented to ensure the trustworthiness of the findings. Inter-rater reliability was maintained through continuous discussions and comparisons among the research team members. An iterative approach allowed for the continuous refinement of themes, enhancing the robustness and credibility of the study's conclusions. Triangulation was employed by comparing findings from different sources, further validating the interpretations and ensuring the accuracy and consistency of the research outcomes. These measures were fundamental in upholding the rigor and integrity of the research.

3. Findings

3.1. Units of the United Nations Making Major Contributions to Environmental Education

3.1.1. United Nations Educational, Scientific and Cultural Organization (UNESCO)

Regarded as a basic human right and cornerstone for peacebuilding and sustainable development, education is a priority within UNESCO's mandate. UNESCO's Education Sector takes on the crucial role of reinforcing national educational systems and promoting gender equality, while also providing global and regional leadership in the field. The organization works towards creating solutions to contemporary global challenges through education, conducting organized studies and international conferences in collaboration with other UN units. From the 1970s, UNESCO, in conjunction with UNEP, has played a pivotal role in shaping environmental education, defining it as "a learning process that enhances people's knowledge and awareness about the environment and its challenges, and develops the necessary skills and expertise to tackle these challenges, while fostering attitudes, motivations, and commitments to make informed decisions and take responsible action."

UNESCO is recognized as a leading entity that utilizes its international influence to define environmental education and outline its objectives and strategies. The organization aims to incorporate environmental education as a fundamental component of the basic curriculum in all nations by 2025 (Karama, 2016). Recognizing education as a potent tool to transform our relationship with nature, UNESCO stresses the necessity of investment in this sector to protect our planet. It actively promotes sustainable development and the enhancement of environmental education (Tilbury, 1995). With the UNESCO Global Education 2030 Agenda, the organization is taking initiatives to improve learning processes for achieving sustainable development goals through education for sustainable development.

Key programs include International Conferences, the Global Action Programme (GAP), Climate Change Education (CCE), and the Green Future Project. These initiatives bring together politicians and field representatives to produce joint statements, promote policy development, transform learning and educational environments, empower and mobilize youth, accelerate sustainable solutions at the local level, generate resources, and guide member states in their policy making for quality climate education.

3.1.2. United Nations Development Program (UNDP)

The UNDP, created from the merger of the UN Extended Technical Assistance Program (founded in 1949) and the UN Special Fund, was officially established in 1966 by a UN General Assembly decision. It operates in 170 countries and regions. With an objective of eradicating poverty and reducing inequalities, UNDP provides support such as policy and partnership development, leadership skills

enhancement, and the development of institutional capacities to assist countries in achieving their Sustainable Development Goals (SDGs). The three focal points of UNDP's work revolve around the SDGs, democratic governance and peacebuilding, and climate and disaster resilience.

The SDGs, also known as the Global Goals, were adopted by the UN in 2015 as a universal call to action to ensure peace and prosperity for all by 2030. As highlighted earlier, UNDP's work is concentrated in three key areas encompassing 17 global development goals, which range from eradicating poverty and hunger to promoting health, quality education, clean water and sanitation, clean energy, economic growth, and more. It also includes goals aimed at addressing societal and environmental issues, such as reducing inequalities, fostering sustainable cities and communities, promoting responsible production and consumption, and combatting climate change.



Figure 1. Logos of sustainable development goals

Upon examining these global goals, we recognize the emphasis on tackling development in harmony with social, economic, and environmental sustainability, and interweaving these aspects with each other. The Sustainable Development Goals (SDGs) with their label value can be said to be encouraging governmental institutions, private institutions, and organizations from various sectors. Each global target has effectively created its own brand value. Non-governmental organizations (NGOs) especially highlight these labels in the programs, projects, and activities they have developed, even presenting their contributions in report format. It is easily observable that the SDGs have had a broad impact worldwide.

3.1.3. United Nations Environment Program (UNEP)

Established at the United Nations Conference on the Human Environment in Stockholm, 1972, the UNEP was designed to address environmental problems on a global scale. As a UN-affiliated program, it is tasked with continuous assessment of the environmental state, drawing international attention to environmental problems, and fostering the development of international and national environmental policies and laws. UNEP's sources of income rely on the UN general budget and voluntary aid from states under the Environmental Fund. It has been suggested that UNEP's budget uncertainty has hindered its ability to undertake long-term projects, and it hasn't fully evolved into an organization yet (Kayhan, 2013). The UNEP closely collaborates with the UN Environment Assembly,

the most crucial decision-making body on the environment, represented by 193 member states and civil society, businesses, and other significant groups and stakeholders (31). Operating worldwide in Africa, Asia, and the Pacific, Europe, Latin America and the Caribbean, North America, and West Asia, the UNEP's authority in the field of global environment was confirmed by the "Rio+20: The Future We Want Statement" in 2012 (Kayhan, 2013).

Expressing its vision as "inspiring the next generation's young leaders to become environmentally conscious individuals who deeply love their planet," UNEP compares its global goals to a guiding North Star, stressing that they invest in environmental education and education for sustainable development to realize these goals. The UNEP's activities under the title of "Youth, Education, and Environment" include:

World School: A web-based platform, created in partnership with Ted-Ed during the pandemic, to draw attention to nature-related issues for children.

Playing for the planet alliance. A project launched in 2019 to encourage young people to support the environment, leveraging the extensive influence of the gaming industry. Its agenda includes integrating green activations into games, reducing emissions, and supporting the global environmental agenda.

Tide turners plastic badge. A global call to boost young people's awareness of plastic pollution and encourage them to take part in solving environmental issues.

The little book of green nudges. A guide featuring a set of behavioral interventions and practices aimed at promoting more sustainable habits among students and staff, starting with universities, in order to create a greener society and foster positive change.

Youth in action and initiative. A reliable and open platform that supports young people worldwide in their environmental endeavors and their interaction with decision-making bodies.

3.1.4. Youth and Trend Alliance (YEA)

Launched in 2019, this alliance comprises collaborations between higher education and youth networks to foster environmental awareness and education among students and youth, accelerating the environmental change urgently needed in the next decade.

Green jobs initiative. Supports green career opportunities in creating the workforce needed for a sustainable and inclusive future. This includes key actions for students to participate in the green economy in collaboration with employers and career counselors.

3.1.5. North America Association for Environmental Education (NAAEE)

Founded in the United States in 1971 as the National Environmental Education Association, the North America Association for Environmental Education (NAAEE) strives to fulfill its ethos of 'providing the education we need for the world we dream of' (NAAEE, 2023). Over time, the NAAEE has gained international recognition due to its robust network and wide range of activities.

Serving as a primary organization for environmental education, NAAEE collaborates with teachers, environmental scientists, researchers, conservationists, outdoor educators, education scientists, resource and environmental managers, foundations, and individuals interested in contributing to the progress of environmental education. Furthermore, numerous partners and funders contribute significantly to NAAEE's initiatives.

One notable aspect of NAAEE is its successful collaboration with local, state, federal, and international organizations, governments, corporations, foundations, and a variety of non-profit organizations through an extensive partnership network. The organization is committed to fostering equality, inclusion, and providing equal opportunities for all, irrespective of race, ethnicity, religion, gender, sexual orientation, socioeconomic status, marital status, age, or location. They are specifically focused

on promoting ecological integrity, economic prosperity, and social equality to establish a more inclusive environmental movement (NAAEE, 2023).

The NAAEE also provides a wide range of national and international formal and informal education, digital learning, and numerous innovative learning processes. These are classified under three primary domains: Good Practice and Practice Studies, Collective Impact-Based Studies, and Studies Extending the Field of Action.

3.1.6. Live & Learn Environmental Education (L&L)

Live & Learn (L&L) is an international organization established in 1992 with a focus on promoting environmental education and protecting rainforests and reefs in the Queensland region of Australia (Live & Learn, 2023). Since its inception, the organization has extended its operations across 11 countries in the South Pacific, South East Asia, and the Indian Ocean.

Live & Learn's mission is centered on education, mobilization, and fostering partnerships to enhance understanding of sustainability and facilitate progress towards a sustainable future. Their programs address diverse areas including environmental protection, climate change, water sanitation and hygiene, disaster risk reduction, and gender and women's empowerment (Zinkunegi-Goitia & Rekalde-Rodríguez, 2022).

3.1.7. World Wildlife Fund (WWF)

Established in 1961, the World Wildlife Fund (WWF) is a non-profit organization whose primary mission is to secure funding to protect threatened habitats and species. WWF works in close to 100 countries and has managed to establish an extensive global network that extends across different levels, from local communities to governments and the global market (World Wildlife Fund, 2023).

The WWF's primary endeavors include safeguarding biodiversity, reducing humanity's environmental impact, and encouraging sustainable use of natural resources to benefit both present and future generations. The organization focuses on critical areas such as climate and energy, food, forests, freshwater, oceans, and wildlife. It also runs programs such as the Russell E. Train Fellowship for Nature Program (EFN) and Wild Classroom.

4. Discussion and Results

4.1. Overview of Environmental Education and Its Evolving Landscape

Environmental education is a fundamental tool that guides us in achieving a harmonious coexistence with nature while considering the needs of present and future generations. The international organizations examined in this study share a common goal: striving to create a more sustainable world today and leave a positive legacy for tomorrow (Steele & Rickards, 2021).

In recent years, environmental education has evolved to become synonymous with sustainable development. This transformation has broadened the scope of environmental education, emphasizing the interconnectedness of various fields of study. The adoption of Sustainable Development Goals (SDGs) has added a new dimension to human-nature interaction, necessitating a comprehensive approach (Alcántara-Rubio, Valderrama-Hernández, Solís-Espallargas, & Ruiz-Morales, 2022).

The field of environmental education continues to evolve to address the growing challenges posed by environmental degradation, climate change, and the pursuit of sustainable development. Key organizations, such as the United Nations Environment Programme, the North America Association for Environmental Education, Live & Learn, and the World Wildlife Fund, reflect this evolution through their educational methods and initiatives (Greer, King & Glackin, 2023).

4.2. Contributions and Impact of NGOs in Environmental Education

These organizations have been instrumental in providing valuable resources and learning experiences that deepen our understanding of environmental issues. They have elevated sustainable development

as a core objective, emphasizing the need for a more sustainable world. The collective efforts of these organizations and others in the field underscore the essential role of environmental education in shaping attitudes, knowledge, and behaviors conducive to sustainable development. (Onopriienko et al., 2021).

The insights and global perspectives offered by these organizations empower individuals and communities to make positive contributions to the global environment. They provide platforms for idea exchange, encouraging innovative solutions to environmental challenges (Castro et al., 2021).

4.3. Recommendations for Enhancing Environmental Education

However, there remains work to be done. Continued efforts are imperative to promote and enhance environmental education, raise awareness, and inspire action. As our understanding of the environment and sustainable development advances, educational approaches must adapt. Integrating environmental education into all aspects of society, from formal education systems to business practices, is key to creating a more sustainable world.

4.4. Recommendations for Future Action

Based on the findings of this study, several specific recommendations are proposed to further strengthen environmental education in collaboration with United Nations units and non-governmental organizations:

- **Strengthen Collaboration:** Advocate for closer collaboration between United Nations units, NGOs, and educational institutions. Develop joint initiatives, share resources, and exchange best practices in environmental education to foster a more cohesive approach.
- **Integration into Curricula:** Promote the integration of environmental education into formal curricula at all educational levels. Ensure that environmental education aligns with national and international sustainable development goals, emphasizing its importance and relevance.
- **Capacity Building:** Support comprehensive capacity-building programs for teachers and educators. Provide them with the necessary knowledge, skills, and resources to effectively deliver environmental education, enhancing the quality and impact of their efforts.
- **Awareness Campaigns:** Initiate and participate in widespread awareness campaigns to engage the wider public in environmental issues. Encourage behavioral changes that contribute to sustainability, fostering a sense of collective responsibility towards our environment.
- **Research and Monitoring:** Encourage robust research and monitoring efforts to assess the impact and effectiveness of environmental education programs. Utilize evidence-based findings to continuously improve and adapt these programs, ensuring their relevance and success.
- **Funding Support:** Advocate for increased funding support for environmental education initiatives, both at the national and international levels. Ensure the sustainability and scalability of these initiatives to drive lasting impact.
- **Collaboration with Communities:** Foster strong partnerships with local communities, indigenous groups, and grassroots organizations. Incorporate local knowledge and perspectives into environmental education programs, making them more relevant and effective.

In conclusion, the significance of environmental education cannot be overstated. It is a crucial driver of sustainability and a vital tool for effecting change. Through increased knowledge and understanding, we can better appreciate our interconnectedness with nature and our responsibility to protect it for future generations. The commitment and innovation demonstrated by organizations in promoting environmental education are integral in shaping a sustainable future. By implementing the outlined recommendations and collaborating effectively, stakeholders can strengthen environmental

education, promote sustainable development, and empower individuals to become active agents of positive change for the environment.

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