

# History of environmental education: notes and reflections

## História da educação ambiental: apontamentos e reflexões

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### Abstract

Environmental education is understood as a social action with formative objectives that integrate theory and practice and presuppose collective engagement and transformation in both the socio-environmental and educational fields. To this end, this article aims to analyze the literature on the history of environmental education based on historical and conceptual frameworks at the international and national levels. For this purpose, the research adopts a qualitative approach, and the procedural method is a narrative literature review. After the historical analysis, it can be concluded that environmental education at the global and national levels has undergone several stages and transformations. These transformations are understood to have resulted from social demands and research in the areas of environmental education, ecology, and sustainability, as well as reflections on the mode of production, the fetish of capital, and the consumerist culture imposed by capitalist ideology. The research addresses the SDG agenda: 4, 13, 15, and 16.

**Keywords:** environmental education; legislation; international conferences; environmental movements.

### Resumo

Compreende-se educação ambiental como uma ação social com objetivos formativos que integram teoria e prática e que pressuponham o envolvimento coletivo e transformação tanto no campo socioambiental quanto no campo educacional. Neste intento, este artigo tem por objetivo analisar a literatura no âmbito da História da educação ambiental a partir de marcos históricos e conceituais a nível internacional e nacional. Para tanto, a pesquisa possui abordagem qualitativa e o método procedural é a revisão narrativa da literatura. Após a análise histórica, pode-se concluir que a educação ambiental em nível mundial e nacional passou por diversas etapas e transformações. Compreende-se que tais transformações foram resultado das demandas sociais e investigações na área de educação ambiental, ecologia, sustentabilidade, bem como reflexões sobre modo de produção, fetiche do capital e cultura consumista imposta pelo ideário capitalista. A pesquisa contempla a agenda dos ODS: 4, 13, 15 e 16.

**Palavras-chave:** educação ambiental; legislações; conferências internacionais; movimentos ambientais.

### INTRODUCTION

Throughout the historical development of environmental education, its concept has been gradually refined, overcoming the dichotomous view of humans versus nature. With theoretical advancement, humanity came to be understood as an integral and inseparable part of the environment. In this way, the idea of untouched nature has been replaced by the concept of social interrelation, in which the environment is continuously shaped by the interaction between society and nature (Carvalho, 2017).

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It is currently understood that humanity must be concerned not only with environmental aspects but also with social and political issues that influence the use of natural resources. Environmental education, therefore, should also be considered a form of political education, as citizens need to be prepared to demand and build ethical social relations and societies in harmony with nature (Reigota, 2009). Accordingly, environmental education aims at both social and ecological sustainability, taking into account a variety of natural environments as well as social and cultural contexts (Sorrentino et al., 2005).

Given the recent environmental and social crisis, it is essential to rethink the relationship between society and nature in order to overcome conflicts, find solutions, and develop new ways of thinking and acting both individually and collectively. In this context, issues such as social inequality, rising unemployment, absolute and functional illiteracy, extreme poverty, epidemics, psychological disorders, risk of malnutrition, energy crises, desertification, loss of biological diversity, and many other challenges reflect the current production model and modern lifestyle (Matos, 2009).

Specifically, environmental education, by promoting the development of citizenship, strengthens the political action potential necessary for the formation of a responsible collective, in line with Edgar Morin's reflections on complexity and planetary interdependence. In the Brazilian context, environmental education policy, articulated with various actors and initiatives, aligns with what Santos (2002) calls the "Sociology of Emergencies", a perspective that values marginalized knowledge and practices, recognizing them as possible and viable alternatives for building sustainable and socially just futures.

The pedagogical practices employed in environmental education initiatives can foster environmental awareness, leave a positive legacy for future generations, and encourage sustainable practices for the protection and conservation of the environment (Souza, 2020). Furthermore, the educational process should aim to increase both individual and collective concern about environmental issues and help develop critical awareness regarding a community's relationship with nature (Silva & Teixeira, 2015).

According to Loureiro (2002), environmental education is an educational and social practice aimed at developing values, concepts, skills, and attitudes that promote an understanding of the realities of life and the conscious and responsible participation of individuals and groups in society. Consequently, it contributes to the pursuit of establishing a new civilizational and social standard, based on a renewed ethic of interaction between society and nature (Loureiro, 2002).

Sustainable practices aim to provide a holistic understanding of environmental issues through the development of critical thinking skills and the cultivation of a sense of responsibility toward the environment (Carvalho, 2018; Silva, Bonini, & Almeida-Scabbia, 2020). The formative aspect, which focuses on the human development of students, must therefore pay attention to local, social, and cultural issues within the context. In this way, by considering students as historical and social subjects capable of actively contributing to the construction of a sustainable society, it demonstrates a broad understanding of pedagogical practices aimed at processes of humanization and awareness-raising.

Environmental education also involves encouraging reflection on environmental realities and fostering a transformative perspective on environmental issues through education. Such approaches allow for a comprehensive exploration of environmental topics and promote a holistic understanding of environmental issues (Carvalho, 2018). To this end, it is necessary to educate students about the impact of human actions on the environment and to promote discussions aimed at seeking information for a healthy, responsible, and sustainable life within contemporary technology- and consumption-oriented societies (Silva & Teixeira, 2015).

Environmental education can be understood as a social action with formative objectives that integrate theory and practice and presuppose collective involvement and transformation in both the socio-environmental and educational spheres. The research presented here is justified by the importance of the historical and social milestones that influenced the emergence and consolidation of environmental education as a field of knowledge, which connects with other areas of expertise through inter- and transdisciplinarity.

It is worth highlighting that the relevance of this article is also reflected in its alignment with the United Nations (UN) 2030 Agenda, particularly with the Sustainable Development Goals (SDGs). In this regard, the research engages with SDG 4 – Quality Education, by recognizing environmental education as an essential component of critical, civic, and transformative education, contributing to pedagogical processes that integrate sustainability and social justice. Similarly, the proposed discussion aligns with SDG 13 – Climate Action, as it highlights the role of environmental education in promoting social and political practices aimed at addressing contemporary environmental and climate-related impacts.

Furthermore, the article is related to SDG 15 – Life on Land, insofar as the historical and political analysis of environmental education reveals its strategic role in biodiversity conservation, the sustainable use of natural resources, and the promotion of ecological practices. Convergence is also observed with SDG 16 – Peace, Justice, and Strong Institutions, as the research underscores the importance of institutionalizing environmental and educational public policies that foster greater equity, social participation, and the strengthening of the Democratic Rule of Law.

In this regard, the objective of this study is to analyze the literature on the history of environmental education based on historical and conceptual milestones at both the international and national levels. Additionally, it seeks to provide theoretical and conceptual support for the integration of environmental education with the global commitments assumed by Brazil within the framework of the 2030 Agenda. By historicizing socio-environmental policies and practices, the research encourages reflection on the role of environmental education as a fundamental tool for achieving the SDGs and, consequently, for promoting more sustainable, just, and inclusive societies.

## METHODOLOGY

The research presented in this article follows a qualitative approach, which, according to Bogdan and Biklen (2003), involves the collection of descriptive data obtained through the researcher's direct contact with the situation under investigation. Its nature is defined as basic, as it is grounded in a literature review aimed at deepening and expanding knowledge on a previously investigated topic. In this way, basic research seeks to produce new, useful knowledge with a view to expanding scientific understanding, even if not necessarily intended for the direct solution of problems or profit generation (Gil, 2010).

Regarding its objectives, this is an exploratory study. According to Sellitz, Wrightsman, and Cook (1965), exploratory studies are those that seek to investigate ideas and intuitions with the aim of gaining greater familiarity with the phenomenon under study. Complementarily, Lösch, Rambo, and Ferreira (2023) indicate that exploratory studies aim to develop and clarify concepts, as well as to understand complex phenomena in different fields of knowledge. The authors also emphasize the increasing use of exploratory research in qualitative studies within the field of education (Lösch, Rambo, & Ferreira, 2023).

As for the procedural method, a narrative literature review was employed. According to Botelho, Cunha, and Macedo (2011), a narrative review is used to explain the state of the art of a specific topic from a theoretical or context-related perspective. Complementarily, Rother (2007) states that the narrative review is a procedural method that allows for quick updates of knowledge on a specific topic and does not enable data reproducibility or the generation of quantitative data from the analyzed production, since the research source and data selection criteria are not specified.

Regarding the data collection technique, a bibliographic survey was conducted using secondary sources. According to Triviños (1987), secondary sources are previously produced documents that present structured information analyzed by third parties, including books, articles, newspapers, magazines, and reports. Finally, the data analysis technique was based on a qualitative descriptive analysis focused on the reflective interpretation of the works examined.

## RESULTS

This article seeks to provide an integrated view of the historical evolution of environmental education, emphasizing how social, cultural, and political contexts have contributed to the construction of this field of knowledge. The text is essential for understanding how environmental education has developed from challenges and mobilizations that, over time, have shaped strategies for promoting sustainable and critical coexistence with the environment.

From a historical, social, and political perspective, it is observed that the 1960s were marked by numerous protest movements that profoundly changed humanity as a whole. Examples include the hippie movement, the feminist movement, the civil rights movement of African Americans in the United States, the movement against nuclear testing, nuclear proliferation, and the pacifist movement (Pereira, 1992).

According to Dill (2008), the 1960s and 1970s were marked by a powerful debate on the environmental crisis, in which the environmentalist movement played a key role in raising awareness about problems caused by humans as an attempt to provide solutions to socio-environmental issues. In addition, Guimarães (2013) points out that environmental phenomena became a social field, as they occupied a significant place in the public sphere in recent history, emerging within the countercultural social movement of the 1960s and 1970s.

In this context, biologist and journalist Rachel Louise Carson published a book titled *Silent Spring* in 1962, a work that became a classic of environmental and ecological movements worldwide throughout the 20th century. In the book, the author warns about the harmful effects of predatory human activity on natural resources. Specifically, Carson (1962) highlights how the indiscriminate use of pesticides and chemical products leads to the pollution of natural resources, resulting in significant losses in human quality of life (Dias, 2004).

Carson (1962) initiated a public discussion on the impact of human actions on the environment. The author demonstrated how pollution resulting from the use of various types of toxic substances endangers the existence of all living beings, including human beings themselves (McCormick, 1992; Cascino, 2000; Dias, 2004; Pelicioni, 2011). *Silent Spring* marked the beginning of the modern environmental debate, and its warnings continue to resonate as a global alert against harmful and indiscriminate human interventions.

Carson's (1962) denunciations revealed a reality too horrifying to be ignored; thus, groups around the world began to debate the chemical contamination of food. Another key point raised by the author was the increase in cancer cases caused by the uncontrolled use of toxic substances, along with the biological and genetic alterations resulting from the excessive use of pesticides and insecticides, and the consequent ecological impacts leading to the extinction of numerous species of fauna and flora (Pelicioni, 2011).

In the 1960s, more specifically in 1965, the Keele Conference was held in the United Kingdom, where the concept of *environmental education* was used for the first time. This concept emerged as a response from civil society to the constant environmental threats posed by predatory human activities (Pelicioni, 2011). It is noteworthy that in 1969, the Society for Environmental Education was founded in the United Kingdom (Dias, 2004). The Keele Conference was a pioneering event, as it systematically discussed the concept of environmental education and made the first reference to the term "environmental education", which would later designate a distinct field of environmental knowledge.

Still regarding the historical trajectory of environmental education, it is important to mention the 1972 Stockholm Conference, which addressed political, social, and economic issues from a global perspective. These topics were discussed in an intergovernmental forum with the aim of taking concrete remedial environmental actions, resulting in significant involvement from governments, international organizations, and non-governmental organizations (NGOs) (McCormick, 1992). The 1972 Stockholm Conference was a historical milestone, as it facilitated international environmental dialogue and led to the creation of an agenda and institutions responsible for environmental issues, such as the United Nations Environment Programme (UNEP).

In the 1970s, the Stockholm Declaration on the human environment was issued and published at the United Nations Conference held in 1972. The declaration influenced and led to the establishment of the United Nations Environment Programme (Brasil, 1972). Furthermore, it conceptually emphasized that humans are both products and producers of the environment and that, through the development of science and technology, humanity has reached a stage where it can transform the environment. Consequently, human action can alter the surrounding environment in numerous ways and on an unprecedented scale. In this way, the human environment is a concept that encompasses both the natural and the artificial environment and serves as the foundation for human development (Brasil, 1972).

Regarding the principles of the Stockholm Declaration, the document asserts that humans have the right to freedom, equality, and adequate living conditions in an environment that ensures a healthy life; however, they also have the duty to protect and, when necessary, improve the environment around them, always being aware that their actions affect the living conditions of future generations (Brasil, 1972).

The 1972 document advocates that the actions of individuals, businesses, and communities should be guided by a commitment to protect and improve the environment. To this end, it is essential that education on environmental issues be directed toward both young people and adults, without economic or social distinctions. The aforementioned principles assert that socioeconomic development is the foundation for humanity to achieve better living conditions (Brasil, 1972).

It is worth noting that, in Brazil, the 1970s are considered the first milestone in the creation of ecological movements in the country, despite the existence of prior conservationist initiatives and movements. This period was marked by the emergence of environmental associations and movements in cities in the South and Southeast, such as the *Movimento Arte e Pensamento Ecológico* (*Movement of Art and Ecological Thought*) and the *Comissão de Defesa da Billings* (*Billings Defense Commission*) in São Paulo, and, in Rio Grande do Sul, the *Associação Democrática Feminina Gaúcha* (ADFG) (*Association of Democratic Women of Rio Grande do Sul*) and the *Associação Gaúcha de Proteção ao Meio Ambiente* (Agapan) (*Association of Environmental Protection of Rio Grande do Sul*) in the environmental struggle (Carvalho, 2007).

In 1975, the United Nations Educational, Scientific and Cultural Organization (UNESCO) held the International Workshop on Environmental Education in Belgrade, during which the International Environmental Education Programme (IEEP) was developed. Its guiding principle is continuous and multidisciplinary environmental education, integrated with regional characteristics and based on national interests. It is worth noting that the International Workshop on Environmental Education produced a document addressing global environmental education: the Belgrade Charter, one of the most important documents on environmental education in the second half of the 20th century (Pelicioni, 2011).

According to the Belgrade Charter, the objective of environmental education is to contribute to the formation of a global population that, in addition to caring for the environment, recognizes environmental problems caused by human activities and cooperates in solving environmental crises. In this global context, environmental education should reach a wide audience, encompassing all population groups in general (United Nations Educational, Scientific and Cultural Organization, 1975). In addition to emphasizing the importance of environmental education, the document—considered a conceptual reference—defined ongoing and permanent goals and objectives for environmental education.

As noted by Antuniassi (1988), the 1970s and the early 1980s were marked by dialogue among environmentalists, intellectuals, and scientists, encouraged through the organization of environmental seminars and conferences that served as catalysts for support and participation. It is noteworthy that Brazil in the 1980s was characterized by democratic opening and the end of the military regime (Antuniassi, 1988).

In the early 1990s, more specifically in 1992, the second United Nations (UN) Conference on Environment and Development (Eco-92) was held in the state of Rio de Janeiro. According to Pelicioni (2011), Eco-92 was a historical milestone for environmental education, as it contributed to the development of a global strategy for environmental conservation and preservation in pursuit of a socially just and ecologically balanced society. Also known as the Earth Summit,

Eco-92 was a significant event, attended by over 170 representatives of nation-states, aimed at encouraging participation in debates on economic development and environmental protection for a global environmental action plan.

Furthermore, it is noteworthy that throughout the second half of the 20th century, starting with the international meetings of 1965, 1972, 1975, and 1992, environmental education played a central role in establishing a new worldview, characterized by new ideals, new cultural perspectives, and the implementation of sustainable ways of living in harmony with the environment (Cascino, 2000). It can be inferred that the increasing frequency of international environmental meetings reflects the global trend toward changing perspectives on environmental issues and the growing importance of environmental education in events, conferences, and environmental and educational legislation.

Another fundamental document that historically marks environmental education is the Earth Charter, written in 1994. The document drew on various sources and advocated the values and principles necessary for a future based on the concept of a global ethic of sustainable development (Cascino, 2000; Dias, 2004; Gadotti, 2010). The Earth Charter is a standard of universal values and should be understood by consensus as a call to action for all individuals, organizations, and nations that is, as an international declaration of principles and practices (Gadotti, 2001).

In a national context, environmental education in Brazil officially originated in 1973 with the creation of the Secretariat for the Environment (Sema). Linked to the Ministry of the Interior, Sema was established in response to increasing international demands for the inclusion of environmental aspects at different levels of education. Its purpose was to raise public awareness about the impact of human actions on the environment and to promote the training of human resources (Brasil, 2003). Sema not only enabled the creation of responsible institutions but also fostered the development of environmental and educational public policies that transformed the national curriculum, professional training, and scientific production.

Although Sema represented the formal emergence of environmental education in Brazil, the process of institutionalizing environmental education only advanced significantly when it became a national policy (Brasil, 1988). Continuing the historical process of institutionalizing environmental education in Brazil, the 1988 Federal Constitution progressed in Article 225, specifically in item VI, by emphasizing the need to "[...] promote environmental education at all levels of education and public awareness for the preservation of the environment".

Continuing with the national context of environmental education, in 1989 the Brazilian Institute of Environment and Renewable Natural Resources (Ibama) was founded, an institution aimed at contributing to the development of Brazilian environmental thinking. Ibama's activities are based on the promotion and implementation of environmental education through training activities conducted by the State Environmental Education Centers (NEEAs) in all 26 Brazilian states and the Federal District (Pelicioni, 2011). The NEEAs stand out as a means to complement Ibama's actions, a federal agency, by carrying out local and regional initiatives to promote environmental awareness, such as fostering the integration of environmental management throughout the country.

Another milestone in the advancement of environmental education in Brazil was the National Environmental Council (Conama), established in 1981. Conama defines environmental education as a concept aimed at fostering critical awareness of environmental issues and actions, together with community participation in maintaining environmental balance. In 1992, Conama became linked to the Ministry of the Environment (MMA) – Conama Resolution No. 7, 1996 (Brasil, 1996).

As a result of Eco-92 and the publication of the *Treaty on Environmental Education for Sustainable Societies and Global Responsibility*, 1992 became a pivotal year in clarifying key aspects of the institutionalization of environmental education in Brazil. In that year, the Ministry of the Environment (MMA) was created, and the *Brazilian Environmental Education Charter* was launched—a document that formally recognizes environmental education as both a means to promote sustainability and improve people's quality of life, as well as a strategy for the planet's survival (Brasil, 2003).

Following the commitments made by the Brazilian government during Eco-92, in December 1994 the *National Environmental Education Program (PRONEA)* was launched. It was implemented by the Environmental Education Coordination Office of the Ministry of Education (MEC), in cooperation with sectors of the Ministry of the Environment (MMA) and the Brazilian Institute of the Environment and Renewable Natural Resources (Ibama). The program established the following guidelines for action: the inclusion of environmental education in formal education; the implementation of environmental management courses; environmental education campaigns across various media; articulation and integration with communities; intra- and interinstitutional collaboration; and the creation of a decentralized network of specialized environmental education centers in all Brazilian states (Brasil, 2003). *PRONEA* represented a formal interinstitutional initiative to systematically and educationally promote environmental education nationwide. This mobilization was essential for coordinated network-based training.

In April 1999, Law No. 9,795 was approved, establishing the *National Environmental Education Policy (PNEA)*. The following year marked a key milestone in consolidating environmental education as a public policy, with its inclusion in the Federal Government's *Multi-Year Plan* for the 2000–2003 period (Brasil, 2003). Also in 1999, a commission was created for a "new" *ProNEA*, under the supervision of the Ministry of the Environment (MMA), tasked with developing the following initiatives: the implementation of the *Brazilian Environmental Education Information System (Sibea)*; the promotion of sustainable practices in Brazilian states; the establishment of interinstitutional environmental education committees at the state level; support for the development of state environmental education programs; the implementation of a distance learning course in environmental education; and the "*Life Protectors Project*", among others (Brasil, 2003).

At the beginning of the 21st century, specifically in 2002, the structure and responsibilities of the administrative body of the *National Environmental Education Policy (PNEA)* were established. The following year, in 2003, the Ministry of Education (MEC) implemented the measures and policies of the PNEA and reorganized the *Environmental Education Coordination Office (Coea)*, which contributed to the consolidation of environmental education as a public policy within the MEC (Dias, 2004). It can be inferred that the integration of environmental education into the ministry aimed to incorporate environmental knowledge into educational processes not only within curricula but also in teacher training, educational guidelines, reference frameworks, and broader educational policies.

In 2002, the *World Summit on Sustainable Development*—also known as *Rio+10*—was held in Johannesburg, the capital of South Africa. The summit aimed to develop a viable action plan to discuss the use of natural resources without negatively impacting the environment. A key highlight of the event was the document's innovation in addressing issues related to globalization and the inequalities inherent in this process. However, a critical analysis of the *Johannesburg Declaration* reveals a lack of clearly defined goals or deadlines, which proved detrimental and contributed to the fragmentation of the proposed measures for environmental preservation and conservation (United Nations, 2002).

In 2012, Brazil hosted the *Rio+20 Conference*, also known as the *United Nations Conference on Sustainable Development*. The conference aimed to address the challenges of economic growth, social inclusion, and environmental protection in a balanced manner. During the event, discussions centered on key themes such as the Sustainable Development Goals (SDGs), the green economy, and the institutional framework for sustainable development. It is noteworthy that *Rio+20* brought together world leaders, government authorities, and stakeholders to discuss central environmental issues, focusing particularly on sustainable development and the very concept of sustainability itself (Layrargues, 2012).

Continuing along the historical path, in 2015 the United Nations organized the *2030 Agenda*, which aimed to address the complexity of social and ecological issues under the premise that environmental problems transcend geopolitical boundaries and must therefore be confronted from a global perspective. Another major challenge lies in operating at the intersection of multiple social and organizational sectors, as this conception requires a complex approach that integrates multiple actors, forms of knowledge, spatial scales, sectors of society, technologies, and types of environmental policies (United Nations Environment Programme, 2019).

The *2030 Agenda* established a global commitment at the end of the 20th century, grounded in 17 goals and 169 targets, going beyond the focus on a single group or sector to promote the engagement of all. Another essential aspect was the emphasis placed on cities as key actors in implementing and innovating sustainable ecological strategies.

Compared to previous agendas and conferences, the *2030 Agenda* differs in that it conceptualizes sustainable development through “supposedly achievable goals” defined by specific environmental targets and indicators. The rationale behind this approach is straightforward: the *2030 Agenda* established these objectives and targets because the concept of sustainable development alone had not been sufficient to produce tangible improvements in the quality of the Earth’s environment (Millennium Ecosystem Assessment, 2005; Intergovernmental Panel on Climate Change, 2013; United Nations Environment Programme, 2019).

The most recent conference, *Stockholm+50*, held in the city of Stockholm in 2022 under the theme “A Healthy Planet for the Prosperity of All”, did not result in any concrete agreements or commitments. Paradoxically, despite its significance, the conference gathered only ten heads of state and government, failing to attract substantial international attention (Dellagnezze, 2022). The *Stockholm+50* conference aimed to accelerate the reduction of annual greenhouse gas emissions by half by 2030 and to reach net-zero levels by 2050. The established goals were aligned with the three dimensions of the planetary crisis that threaten both human and environmental health, according to the United Nations Environment Programme (UNEP): climate change, loss of nature and biodiversity, and the problems of pollution and waste disposal (Dellagnezze, 2022).

It is noteworthy that the most recent editions of the United Nations Environmental Conferences have raised important questions regarding the environmental impacts of the current socio-productive model, highlighting the progressive worsening of the environmental crisis and climate change. However, political divergences have contributed to the fact that the measures and/or agreements established during these international meetings were either not implemented in practice or only partially enforced.

## SYNTHESIS OF RESULTS

So far, a significant number of historical events and environmental movements that have decisively contributed to the advancement of environmental education have been presented. In this section, a synthesis of these events and movements is provided to illustrate the trajectory of environmental ideas and practices in both national and international contexts: their connection with social movements and the environmental crisis; the impact of the book *Silent Spring* and the emergence of the concept of environmental education; consolidation through international conferences and documents; institutionalization and progress within the Brazilian context; and the diversity of theoretical approaches.

In the 1960s and 1970s, the emergence of various social movements—the hippie movement, the feminist movement, the civil rights movement for Black people, the anti-nuclear testing movement, and the pacifist movement—significantly contributed to transforming public perceptions of environmental issues (Pereira, 1992). This period was marked by intense debate over the environmental crisis, resulting from the impacts of industrialization and the unchecked use of technology. In this context, it is evident that such debates emphasized the need to rethink socio-economic practices and highlighted the urgency of adopting measures to mitigate the effects of human activities on the environment (Dill, 2008; Guimarães, 2013).

The publication of *Silent Spring* by Carson (1962) marked a historic milestone in environmental discourse. Carson (1962) highlighted the negative impacts of the indiscriminate use of pesticides and chemicals, demonstrating how such practices degrade ecosystem quality and affect human health (Dias, 2004; McCormick, 1992; Cascino, 2000; Pelicioni, 2011). This work not only raised global environmental awareness but also paved the way for the emergence of the concept of environmental education, which would later be formalized in pioneering events such as the Keele Conference (1965) and the founding of the Environmental Education Society in the United Kingdom (Dias, 2004; Pelicioni, 2011).

The consolidation of environmental education gained global prominence through major international conferences and documents. The 1972 Stockholm Conference highlighted the interrelationship between the environment and human development, establishing fundamental principles that guided environmental protection and the promotion of a dignified life (Brasil, 1972). Subsequently, the International Environmental Education Meeting held in Belgrade (1975) led to the creation of the *Belgrade Charter*, which reinforced the importance of continuous and multidisciplinary environmental education. Subsequent documents, such as the *Earth Charter* (1994), reaffirmed the values and principles necessary for building a sustainable future, consolidating environmental education as an indispensable tool in addressing the ecological crisis (Cascino, 2000; Dias, 2004; Gadotti, 2010).

In the 1970s, ecological movements gained momentum in Brazil, particularly in the South and Southeast regions, with the creation of various associations (Carvalho, 2007). In the Brazilian context, the formal institutionalization of environmental education began in 1973 with the creation of Sema, established in response to growing international and local demands for greater environmental awareness (Brasil, 2003). The 1988 Federal Constitution strengthened this movement by recognizing environmental education as both a right and a duty of citizens (Brasil, 1988). From the 1990s onward, the creation of institutions such as Ibama (1989) and Conama (1981), along with the implementation of policies and programs such as *Pronea* and the inclusion of environmental education in the Federal Government's *Multi-Year Plan*, marked significant progress in consolidating environmental education in the country, promoting the integration of actions at federal, state, and municipal levels (Pelicioni, 2011; Brasil, 1996).

## CONCLUSION

The primary objective of this research was to analyze the historical panorama of environmental education, highlighting the modern environmental debate of the 1960s through Rachel Carson's inquiries, as well as the events and conferences that illustrate the conceptual and practical transformations of environmental education over time. In this regard, the article aimed to contribute to a deeper understanding of its foundations, challenges, and possibilities within the contemporary social context.

It is understood that the concept of environmental education has undergone a developmental process shaped by social demands and distinct historical periods, making the field of environmental education contextually grounded and more substantial within the body of produced knowledge. In this regard, the present analysis calls for reflection on the conceptual and historical evolution of environmental education, without overlooking the international milestones and conventions that have undeniably influenced and continue to impact national legislation, regulations, and public policies aimed at environmental education and sustainability.

After the historical analysis, it can be concluded that environmental education at both global and national levels has undergone multiple stages and transformations. These changes are understood to be the result of social demands and research in the fields of environmental education, ecology, and sustainability, as well as reflections on modes of production, the fetish of capital, and the consumerist culture imposed by the capitalist ideology.

In summary, this article aimed to analyze the historical trajectory of environmental education, tracing the modern socio-environmental debate from the 1960s to the present day. At its core, environmental education must be a political-pedagogical approach focused on environmental awareness and practice, grounded in political education and social justice. For this purpose, it is essential that the history of environmental education is not only known but also understood a goal to which this article seeks to contribute.

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#### Authors contribution

AVA: Conceptualization, Methodology, Review. ABSL: Writing, Methodology, Review. PBSL: Data Analysis, Writing, Review. ARX: Conceptualization, Methodology, Writing, Review.

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