

**EDUCATION AND ECOLOGICAL CITIZENSHIP: TEACHING PRACTICES FOR
QUILOMBOLA AND SERTANEJO SCHOOLS**

**EDUCAÇÃO E CIDADANIA ECOLÓGICA: PRÁTICAS DE ENSINO PARA
ESCOLAS QUILOMBOLAS E SERTANEJAS**

**EDUCACIÓN Y CIUDADANÍA ECOLÓGICA: PRÁCTICAS DE ENSEÑANZA
PARA ESCUELAS QUILOMBOLAS Y SERTANEJAS**

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ABSTRACT

This chapter analyzes the relevance of education and ecological citizenship in quilombola and sertanejo contexts, highlighting how these territories broaden the meaning of Science teaching by integrating the Caatinga biome, local culture, and traditional knowledge as constitutive dimensions of the educational process. It argues that the school, by articulating scientific knowledge and community memory, becomes a strategic space for the development of critical awareness, social participation, and sustainable practices. Based on a comprehensive literature review, the chapter discusses the theoretical foundations of Ecological Citizenship, Critical Environmental Education, and the Ecology of Knowledge, while also examining the pedagogical practices of quilombola schools and the Pedagogy of Living Together in the Semiarid region. Finally, it highlights the convergences, tensions, and challenges involved in constructing a contextualized education committed to territorial preservation, the appreciation of traditional identities, and the formation of ecological subjects.

Keywords: Ecological Citizenship. Quilombola Education. Semiarid Region. Traditional Knowledge.

RESUMO

Este capítulo analisa a relevância da educação e da cidadania ecológica em contextos quilombolas e sertanejos, destacando como esses territórios ampliam o sentido do ensino de Ciências ao integrar a Caatinga, a cultura local e os saberes tradicionais como dimensões constitutivas do processo formativo. Defende-se que a escola, ao articular conhecimento científico e memória comunitária, torna-se espaço estratégico para o desenvolvimento da consciência crítica, da participação social e de práticas sustentáveis. A partir de uma revisão bibliográfica abrangente, o capítulo discute os fundamentos teóricos da Cidadania Ecológica, da Educação Ambiental Crítica e da Ecologia de Saberes, analisando também as práticas pedagógicas das escolas quilombolas e a Pedagogia da Convivência no Semiárido. Por fim, evidencia as convergências, tensões e desafios que atravessam a construção de uma educação contextualizada e comprometida com a preservação territorial, a valorização das identidades tradicionais e a formação de sujeitos ecológicos.

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Palavras-chave: Cidadania Ecológica. Educação Quilombola. Semiárido. Saberes Tradicionais.

RESUMEN

Este capítulo analiza la relevancia de la educación y la ciudadanía ecológica en contextos quilombolas y sertanejos, destacando cómo estos territorios amplían el sentido de la enseñanza de Ciencias al integrar la Caatinga, la cultura local y los saberes tradicionales como dimensiones constitutivas del proceso formativo. Se sostiene que la escuela, al articular el conocimiento científico y la memoria comunitaria, se convierte en un espacio estratégico para el desarrollo de la conciencia crítica, la participación social y las prácticas sostenibles. A partir de una revisión bibliográfica exhaustiva, el capítulo discute los fundamentos teóricos de la Ciudadanía Ecológica, la Educación Ambiental Crítica y la Ecología de Saberes, analizando también las prácticas pedagógicas de las escuelas quilombolas y la Pedagogía de la Convivencia en el Semiárido. Finalmente, evidencia las convergencias, tensiones y desafíos que atraviesan la construcción de una educación contextualizada y comprometida con la preservación territorial, la valorización de las identidades tradicionales y la formación de sujetos ecológicos.

Palabras clave: Ciudadanía Ecológica. Educación Quilombola. Semiárido. Saberes Tradicionales.



1 INTRODUCTION

Education and ecological citizenship become especially significant when the teaching of Science takes place in quilombola and sertanejo territories. In these realities, working on environmental content requires an approach that recognizes the Caatinga as an educational space, values the traditional knowledge of the community and connects scientific knowledge to experiences lived in everyday life. The environment, culture and local identity become fundamental elements to understand natural phenomena and reflect on sustainable practices.

In this context, pedagogical practices need to encourage investigation, critical thinking, and the active participation of students in the preservation of the territory. By integrating observation activities, dialogue with community memory and analysis of the environmental challenges of the region, the teaching of Science contributes to forming subjects aware of their role in society. The school, thus, becomes a space for the construction of ecological citizenship, strengthening the students' commitment to sustainability and to the values that guide life in quilombola and sertanejo communities.

The twenty-first century imposes on humanity environmental challenges of unprecedented proportions, ranging from climate change and the accelerated loss of biodiversity to the water crisis and growing socio-environmental inequality. Against this backdrop, the traditional notion of citizenship, focused primarily on civil and political rights within the confines of the nation-state, proves to be insufficient. It is imperative to develop an Ecological Citizenship (EC), which transcends geographical and temporal borders, incorporating responsibility towards the environment and future generations (DOBSON, 2003).

Ecological Citizenship requires a profound reorientation of values, attitudes and practices, and it is at this point that education assumes a central and irreplaceable role. The school, as a space for training and critical reflection, is the privileged locus² for sowing the awareness that the human being is an integral part of nature, and not its dominator. In Brazil, this task takes on even more complex and rich contours when it turns to traditional communities, such as quilombolas and sertanejas, whose histories of resistance and ways of life are intrinsically linked to the conservation and sustainable use of their territories.

² It refers to the place, space or context where a certain phenomenon occurs, and can indicate both a physical and symbolic position within a social, biological or cultural process.



Quilombola communities and populations in the Brazilian semi-arid region, often marginalized in hegemonic debates³ on development and education, are, paradoxically, holders of a vast and sophisticated body of environmental knowledge. Its land, water and natural resource management practices, passed down orally through generations, represent true lessons in sustainability and resilience.

Focusing on traditional communities, such as quilombolas and sertanejas, is essential because these groups keep knowledge, practices, and ways of life that contribute to environmental conservation and the construction of more balanced relationships with nature. In many of these territories, knowledge about water management, responsible land use, agroecological practices, and respect for biodiversity is transmitted between generations, constituting a valuable sociocultural heritage. Recognizing and integrating this knowledge into the educational process broadens students' understanding of sustainability and strengthens collective identity, promoting self-esteem, belonging, and appreciation of historical roots.

Schools located in these territories play a strategic role in articulating scientific and cultural knowledge, preparing students to act critically in the face of environmental challenges that directly affect their lives. In this way, the focus on these communities not only qualifies teaching, but also reinforces the right to contextualized, inclusive education that is socially committed to the preservation of the territory and the strengthening of traditional identities.

Studying the teaching practices of Ecological Education and Citizenship in these schools is not only an exercise in recognizing cultural diversity, but an epistemological and political necessity. It is in quilombola and sertanejo schools that Environmental Education (EE) can manifest itself in its most critical and transformative form, articulating the struggle for territorial and social rights with the defense of the environment. The focus on these realities allows the decolonization of the curriculum, valuing the Ecology of Knowledge proposed by Boaventura de Sousa Santos, where scientific knowledge dialogues horizontally with ancestral knowledge (SANTOS, 2007).

The objectives of this chapter focus on developing a comprehensive literature review on the theme "Education and ecological citizenship: teaching practices for quilombola and sertanejo schools". It seeks to analyze the theoretical foundations that sustain Ecological

³ Discussions marked by the predominance of certain groups, discourses, or perspectives that become dominant in a social, political, or scientific context, influencing the way topics are understood, legitimized, and reproduced in society.



Citizenship, Critical Environmental Education and the Ecology of Knowledge; to map the scientific production related to Environmental Education and the pedagogical practices developed in quilombola schools; to investigate teaching methodologies and the Pedagogy of Coexistence with the Semi-arid in the backcountry context; and to identify the points of convergence, as well as the challenges that the promotion of ecological citizenship in the different territories analyzed cross.

To achieve these objectives, the chapter is structured in five main sections, in addition to this Introduction and the References. Section 2 presents the Theoretical Foundations that support the discussion. Section 3 deepens the relationship between Quilombola School Education and the environment. Section 4 discusses Education in the Semi-arid Region and the Pedagogy of Coexistence. Section 5 sets out the convergences, tensions, and challenges encountered between the two contexts. Finally, Section 6 brings together the Final Considerations of the study, synthesizing the findings and pointing out perspectives for future research and practices.

2 THEORETICAL FOUNDATIONS: ECOLOGICAL CITIZENSHIP, ENVIRONMENTAL EDUCATION AND TRADITIONAL KNOWLEDGE

The articulation between Ecological Citizenship, Environmental Education and Traditional Knowledge reveals a powerful way to think about contextualized and socially committed educational practices. Ecological Citizenship proposes that subjects assume ethical and collective responsibilities in the face of socio-environmental issues, going beyond individual actions and recognizing the interdependence between human beings and nature. Environmental Education, especially in its critical aspect, contributes to this training by promoting reflection, social participation and awareness of the inequalities that affect the territories.

Moving forward in the perspective of a sustainable society implies, among many other things, making industries more efficient, reducing waste and reducing the production of toxic or non-toxic waste; control water pollution; carry out forest management; recycle materials. (BRASIL, 1998, p.220).

Inserted in this scenario, traditional knowledge, especially quilombola and sertanejo knowledge about land management, water use, and coexistence with the climate, become fundamental, as they express sustainable practices built historically and capable of dialoguing with scientific knowledge. The integration of these three dimensions strengthens



the autonomy of communities, values their identities and broadens students' understanding of the complexity of environmental relations.

By recognizing traditional knowledge as an essential part of the construction of ecological citizenship, it breaks with the hierarchical view that for a long time privileged only scientific knowledge. In quilombola and sertanejo communities, this knowledge is born from the direct relationship with the territory, from the observation of natural cycles, from the conscious use of resources and from the practices of resistance that have ensured the survival of these peoples over generations. When incorporated into the school curriculum, they allow students to understand the environment not only as an object of study, but as a space of life, memory, and identity. This appreciation strengthens belonging and expands the critical capacity of students in the face of environmental challenges that historically affect these populations.

Thus, integrating Environmental Education into community practices favors the construction of situated pedagogical projects, which dialogue with the socio-environmental reality of the territories. The school, by working with themes such as conservation of the Caatinga, social technologies for coexistence with the semi-arid region or sustainable management of food and water, brings teaching closer to everyday life and promotes meaningful learning.

The environmental principles and values promoted by a pedagogy of the environment must be enriched with a pedagogy of complexity, which induces in students a vision of multicausality and the interrelations of the different processes that integrate their world of life in the different stages of psychogenetic development; that generates critical and creative thinking based on new cognitive capacities (LEFF, 2013, p. 243)

This approach favors the formation of subjects who recognize their role in environmental, social and cultural transformations, making ecological citizenship a concrete and everyday practice. Thus, education is no longer just a transmitter of content and becomes a collective process of knowledge construction, respect for diversity, and active defense of socio-environmental rights.

2.1 ECOLOGICAL CITIZENSHIP (EC): CONCEPT, EVOLUTION AND DISTINCTION

Ecological Citizenship emerges as a response to the civilizational crisis and the insufficiency of the liberal citizenship model. The concept, popularized by authors such as Loureiro (LOUREIRO, 2008) and Dobson (DOBSON, 2003), proposes an expansion of the



scope of citizenship beyond the human sphere, including responsibility towards the natural world.

Traditional citizenship is, in essence, anthropocentric, territorial and legalistic. It is based on the relationship between the individual and the State, guaranteeing rights and duties within a delimited geographical space. In contrast, Ecological Citizenship is biocentric or ecocentric, transnational and ethical. It is based on the idea that rights and duties extend to the entire planet and to all forms of life, and that responsibility is not limited to the present, but is projected into the future (intergenerational justice).

Therefore, Ecological Citizenship presupposes a critical education capable of recognizing that environmental problems are not only of a natural order, but also political, social and cultural. For Loureiro (2008), the environmental crisis is inseparable from the forms of production, consumption and inequality that characterize the current economic system. In this way, the EC requires subjects who understand socio-environmental conflicts, denounce ecological injustices and are able to propose sustainable alternatives in their territories. It is an active citizenship, which is not limited to voting or complying with norms, but which is expressed in transformative practices, such as the defense of common goods, the care of local ecosystems and the construction of more solidary and sustainable ways of life.

Another essential aspect is that the EC recognizes the value of traditional knowledge and populations that have historically developed forms of harmonious coexistence with the environment, such as quilombola communities, indigenous peoples and sertanejo populations. These groups, throughout their trajectories, have consolidated sustainable management practices, rational use of natural resources and strategies for caring for the territory that challenge the dominant exploratory logic. By integrating this knowledge into the contemporary debate, Ecological Citizenship strengthens a plural, intercultural and democratic perspective, reaffirming that the construction of environmentally just societies depends on valuing the multiple forms of existence and relationship with nature.

Table 1

Characteristic	Traditional Citizenship (Liberal)	Ecological Citizenship (EC)
Focus	Rights and duties of the individual in the nation-state	Responsibility to the planet and future generations
Prospect	Anthropocentric (the man in the center)	Biocentric/Ecocentric (life and the ecosystem at the center)



Scope	Territorial (limited by the State)	Transnational/Planetary
Nature	Legalist and political	Ethics, politics and culture

2.2 THE ETHICAL AND POLITICAL DIMENSION OF ECOLOGICAL CITIZENSHIP

CE is not just a set of individual practices (such as recycling or saving water), but an ethical and political stance that calls for the transformation of social and economic structures. Politically, it manifests itself in the struggle for Environmental Justice, which recognizes that negative environmental impacts (pollution, disasters, scarcity) fall disproportionately on vulnerable populations, such as quilombola and sertanejo communities.

The ethical dimension of the EC implies the recognition of otherness, that is, the ability to put oneself in the place of the "other" – be it a marginalized human being, an animal, a plant or an ecosystem. This ethics of alterity is crucial for overcoming the predatory model and for building a more just and sustainable society (DUTRA, 2012).

2.3 CRITICAL AND TRANSFORMATIVE ENVIRONMENTAL EDUCATION (EE)

Critical and Transformative Environmental Education (EE) emerges as an approach that goes beyond merely informative or behavioral practices, understanding the environment as a field of social, political and economic disputes. Authors such as Paulo Freire and Carlos Frederico Loureiro argue that environmental education is to train subjects capable of understanding the structural causes of the ecological crisis and acting to transform them. Freire (1996) states that *there is no neutral education*, emphasizing that all pedagogical practice involves political choices.

Loureiro (2007), in turn, points out that:

Critical EE seeks to overcome superficial environmentalism, proposing a social reading of nature and the conflicts that cross it. Laurel (2007)

By stating that this perspective articulates ecological awareness, social justice and human emancipation, the author reinforces that to educate environmentally is to form subjects capable of critically analyzing reality and acting to transform it in a collective and socially just way.

Thus, the Critical and Transformative EE understands that environmental change depends on collective participation and articulation between school, community and territory. Guimarães (2004) emphasizes that *educating for the environment implies educating for*



citizenship and for the transformation of reality, reinforcing that education should stimulate the protagonism and autonomy of populations in the face of environmental challenges. This perspective also values local knowledge, recognizing that traditional, quilombola, and sertanejo communities build sustainable practices that confront the hegemonic model of development. In this way, critical EE broadens the meaning of education, understanding it as a continuous process of reflection and action capable of strengthening more just, solidary and ecologically balanced ways of life.

Environmental Education, since its formalization in international conferences (such as Tbilisi, 1977), has evolved from a merely informative and conservationist approach to a critical and transformative perspective. Critical EA, defended by authors such as Loureiro (LOUREIRO, 2004) and Guimarães (GUIMARÃES, 2004), rejects neutrality and assumes a commitment to social transformation.

Critical Environmental Education understands that the environmental crisis is essentially a social, political, and economic crisis. Therefore, its purpose goes far beyond teaching content about the environment: it seeks to unveil the structural causes of environmental degradation, especially those related to the capitalist model of production and consumption; promote political participation and social organization in the defense of environmental rights; and to articulate in an inseparable way the environmental and social dimensions, combating environmental racism and the different forms of injustice that affect, above all, the most vulnerable groups⁴. In this way, EA Crítica is committed to an education that understands the environment as a space for dispute and social transformation.

2.4 THE ROLE OF EE IN THE FORMATION OF ECOLOGICAL SUBJECTS

The product of Critical EE is the ecological subject, an individual who is aware of his or her interdependence with the environment and who acts reflexively and proactively in mitigating socio-environmental impacts (COSTA; AGUIAR, 2020). In quilombola and sertanejo schools, the formation of this subject is enhanced by the local reality itself, where the struggle for survival and the direct relationship with the territory already provide the substrate for an engaged education.

⁴ Quilombola communities are among the most vulnerable groups due to environmental racism, which manifests itself in the unequal distribution of environmental risks and impacts. Historically marginalized in terms of access to public policies, basic infrastructure, and territorial protection, these communities face greater exposure to contamination, scarcity of water resources, land violence, and the absence of adequate sanitation. Environmental racism, therefore, is not only a consequence, but a structural form of discrimination that reinforces inequalities and directly threatens the quality of life, health, and cultural identities of quilombolas.



Critical Environmental Education (EE) has as its horizon the formation of the ecological subject, understood as one who recognizes his interdependence with the environment, understands socio-environmental conflicts and acts in an ethical and committed way in the transformation of reality (COSTA; AGUIAR, 2020). This subject does not arise spontaneously: it is the result of a continuous, reflective, and politicized educational process, which questions the structures of society and strengthens collective practices of care, solidarity, and environmental justice. It is an education that requires historical awareness, a critical reading of the world and the ability to act on it, resuming the Freirean perspective that *"education does not transform the world, education changes people, and people transform the world"* (FREIRE, 2000).

In this context, Critical EE takes on a profoundly transformative character, as it breaks with a neutral or technicist view of the environmental crisis and understands it as the result of structural inequalities that cross race, territory and social class. Quilombola and sertanejo communities, often forgotten by public policies, are among the groups most affected by environmental racism, which unequally distributes risks, pollution and degradation (ACSELRAD, 2004). It is in these territories that EE becomes even more urgent, as it gives visibility to injustices, strengthens collective identities and enables subjects to understand and face the historical marginalization to which they have been subjected.

As a result, the intensification of the global environmental crisis and climate change amplifies the challenges faced by traditional populations, who already live with water scarcity, deforestation, land grabbing,⁵ and the impacts of predatory economic policies. According to Loureiro (2008), Critical EE should enable subjects to understand such crises as part of an economic model that prioritizes exploitation and profit, putting at risk not only ecosystems, but also entire cultures. Thus, to form ecological subjects, especially in quilombola schools, is also to form subjects of resistance, capable of taking a stand in the face of injustices and elaborating collective practices of confrontation.

The teacher, in this process, plays an essential role as a mediator and articulator of knowledge. For Freire (1996), the educator is the one who enables a critical reading of the world, stimulating dialogue, autonomy and reflective thinking. At EA Crítica, the teacher acts as a facilitator of experiences that connect science, territory and culture, valuing the history

⁵ The word "land grabbing" originated from an ancient technique where forged documents were placed in a box with crickets. The insects' excrement accelerated the oxidation of the paper, causing it to acquire a yellowish and aged appearance in a short time.



of communities and strengthening contextualized environmental awareness. Its role is not to transmit ready-made truths, but to create conditions for students to interpret environmental problems from their reality and build collective solutions.

Finally, it is essential to highlight that quilombola communities are guardians of ancestral knowledge that is fundamental for environmental preservation. Their ways of life, agroecological practices, techniques for sustainable use of the land, and spiritual relationship with the territory constitute knowledge transmitted by the older generations, the "ancients", as many communities call them, which, according to Santos (2018), *"produce their own epistemologies and ways of understanding the environment that resist colonial and capitalist logic"*. By recognizing that quilombolas are specialists in environmental preservation, EA Crítica reaffirms the importance of this knowledge as ecological and cultural heritage, reinforcing that any sustainability project must consider, value and learn from these populations.

2.5 TRADITIONAL KNOWLEDGE AND ECOLOGY OF KNOWLEDGE

The Ecology of Knowledge, a concept coined by the Portuguese sociologist Boaventura de Sousa Santos (SANTOS, 2007), proposes a horizontal dialogue between scientific knowledge and non-scientific knowledge, such as traditional, popular and ancestral knowledge.

The Ecology of Knowledge is the idea that scientific knowledge is not the only valid knowledge and that it must enter into dialogue with other knowledge, such as traditional, popular and indigenous knowledge, to build a more just and sustainable society. (SANTOS, 2007).

The Ecology of Knowledges, by breaking with the epistemological monopoly of scientific knowledge, recognizes that different cultures produce legitimate ways of interpreting the world, of managing the environment and of constructing modes of existence. Santos (2010) states that *"no form of knowledge is complete in itself"* and that modern science only becomes truly democratic when it recognizes its incompleteness and opens itself to intercultural dialogue. This perspective is fundamental to overcome the hierarchy that has historically inferiorized popular, quilombola, indigenous and sertanejo knowledge, classifying them as "less rational" or "less developed".

In this sense, traditional knowledge plays a strategic role in the construction of alternatives in the face of the environmental and climate crisis. Several contemporary studies



demonstrate that ancestral practices of sustainable management — such as traditional swiddens, agroforestry systems, selective seed collection techniques, and community forms of territorial management — contribute to the maintenance of biodiversity, the protection of springs, and the balance of ecosystems (ALMEIDA, 2019). This knowledge, transmitted orally between generations, constitutes social technologies of great ecological and cultural value, which resist the predatory logic of global capitalism.

From the perspective of the Ecology of Knowledge, the school is no longer an exclusively transmitting space for scientific content and becomes an environment for dialogue, recognition and appreciation of epistemological diversity. Loureiro and Layrargues (2021) highlight that *"environmental education is only strengthened when it incorporates the experiences and practices of the communities that live the ecological reality of their territories"*. This means that, in quilombola and sertanejo contexts, the educational process must consider elements such as the collective way of life, the spiritual relationship with the land, rituals, the memory of ancestors and respect for nature as part of cultural identity.

In addition, by dialoguing with traditional knowledge, the Ecology of Knowledges recognizes that quilombola communities and native peoples have been protagonists in environmental defense. Contemporary researchers such as Benatti and Pantoja (2022) show that traditional territories are, proportionally, the most preserved areas in the country, even facing land violence, environmental racism, and the absence of public policies. Such communities are guardians of essential knowledge to face the climate crisis, as their ways of living demonstrate that it is possible to maintain a relationship of care and reciprocity with the environment.

Finally, by articulating science and ancestral knowledge, the Ecology of Knowledge reinforces the idea that sustainability will not be built from a single rationality, but from the convergence between multiple knowledges. For Carvalho and Silva (2023), *"the ecological transition requires a plurality of voices and practices, especially those that have been historically silenced"*. Thus, recognizing the epistemic value of quilombola, indigenous, riverside and sertanejo communities is not only an act of historical justice, but an essential path to face the socio-environmental challenges of the twenty-first century. The ecology of knowledges, therefore, presents itself as an ethical, political, and epistemological alternative for the construction of more sustainable, democratic, and inclusive societies.



2.5.1 The Critique of the Hegemonic Vision of Science and the Valorization of Ancestral Knowledge

Modern science has often imposed a worldview that has disqualified and made invisible the knowledge of traditional communities. The Ecology of Knowledges, on the contrary, recognizes that the sustainability and resilience of these communities are the result of a practical and deep knowledge about the local ecosystem.

In quilombola and sertanejo schools, Critical EE must operate from this Ecology of Knowledge, integrating the formal curriculum with management practices, stories, myths and social technologies developed locally. It is from this dialogue that Ecological Citizenship becomes concrete and meaningful for students, as it is rooted in their own identity and territory.

The abyssal thinking that structures modern Western science is the main target of this criticism, because, according to Boaventura de Sousa Santos (2007), it establishes a radical line that separates "valid" knowledge from "non-existent". This division, which dates back to the colonial era, results in a global cognitive injustice, where popular, peasant and indigenous knowledge are relegated to the category of beliefs or opinions, devoid of epistemological relevance. The Ecology of Knowledge emerges, therefore, as an ethical and political imperative to overcome this exclusion, proposing the co-presence and articulation between scientific knowledge and the various forms of knowledge that have been historically silenced.

Critical Environmental Education (EAC), by adopting the perspective of the Ecology of Knowledge, becomes a pedagogy of resistance and emancipation, as pointed out by Nóra (2025). It moves away from the merely instrumental view of environmental education, which focuses only on changing individual behavior, to question the structural roots of the ecological crisis, closely linked to social injustice and epistemic domination, as Isabel Carvalho (2004) argues. In quilombola and sertanejo communities, this means that the curriculum must be a space for the decolonization of knowledge, where local history and cosmology are recognized as matrices of sustainable territorial management.

The valorization of ancestral knowledge does not imply a total rejection of science, but rather its contextualization and the recognition of its incompleteness, a central principle of the Ecology of Knowledge of Boaventura de Sousa Santos (2007). Scientific knowledge, with its capacity for analysis and systematization, must enter into a process of translation with traditional knowledge, so that both can mutually enrich each other. For example, the empirical knowledge of backcountry farmers about the resistance of native seeds to drought can be



dialogued with genetics and agronomy, resulting in more adapted and resilient solutions for the semi-arid region.

In this sense, the school becomes a laboratory of interculturality, where the territory is the main source of research and learning. Management practices, social technologies (such as water harvesting and food production systems) and traditional medicine, developed over generations, are elevated to the status of relevant knowledge, as observed in studies on the Serra da Guia Quilombo (2025). By integrating these elements, EAC strengthens the identity of students and the autonomy of their communities, preparing them not only for citizenship, but for dignified permanence in their territories.

Ultimately, the construction of a full Ecological Citizenship, rooted in these contexts, requires an epistemological rupture that replaces the search for the universal and abstract validity of knowledge with the search for plausibility and social relevance, one of the pillars of Boaventura de Sousa Santos' post-abysal thought (2007). It is from the recognition of the diversity of knowledge and the fight against cognitive injustice that it is possible, in fact, to build a fairer and more sustainable future, where environmental conservation and social justice go hand in hand, respecting the richness of the ecologies of knowledge that flourish in deep Brazil.

3 QUILOMBOLA SCHOOL EDUCATION AND THE RELATIONSHIP WITH THE ENVIRONMENT

Quilombola School Education (EEQ) is a field of study and pedagogical practice that was consolidated from the historical struggle of rural black communities for recognition and rights. The intrinsic relationship of these communities with the territory and nature makes Environmental Education (EE) and Ecological Citizenship (EC) structuring axes and not just transversal themes.

The EEQ arises as a direct result of the historical struggles of quilombola communities for the affirmation of their territorial, cultural and identity rights. As Arruti (2006) points out, quilombos constitute spaces of resistance and social reinvention, in which education has always been articulated with the defense of the territory. In this sense, the quilombola school cannot be understood only as a space for the transmission of content, but as part of a collective life project, deeply rooted in the relationship with the environment.

The **relationship between territory, nature and ancestry** occupies a central place in the sociocultural organization of quilombola communities. According to Almeida (2010),

the territory is "a space of memory, of reproduction of life and of maintenance of modes of existence". In this way, sustainable environmental practices are part of the quilombola daily life not as an isolated technique, but as an expression of a way of life that respects ecological cycles, traditional knowledge and community bonds. Environmental Education, in this context, ceases to be complementary content to become an organic axis of training.

EEQ, by dialoguing with Environmental Education and Ecological Citizenship, breaks with hegemonic teaching models that disregard local realities and collective identities. For Silva and Silva (2019), the quilombola school needs to work from the "pedagogy of the territory", valuing practices such as community land use, sustainable extractivism, care for the waters, and rituals linked to nature. Thus, teaching is articulated with life and strengthens critical environmental awareness, capable of questioning inequalities and promoting autonomy.

Ecological Citizenship gains an expanded meaning when observed from the quilombola context. While in traditional approaches it appears centered on the individual, in quilombola communities it takes on a collective and communitarian character. According to Gonçalves and Costa (2021), quilombola environmental citizenship is based on "shared care for the territory" and on the understanding that the protection of natural assets is indispensable for the continuity of community life. The school, therefore, works as a space to strengthen these understandings.

Finally, **EEQ integrated with Environmental Education** contributes to the reaffirmation of identity, the appreciation of ancestral knowledge and the strengthening of socio-environmental justice. Gomes (2017) argues that contextualized pedagogical practices enable students to understand the relationships between environmental racism, unequal access to natural resources, and the struggle for rights. In this way, the quilombola school becomes a space of resistance, emancipation and production of new meanings for Ecological Citizenship, articulating the past, present and future of rural black communities.

3.1 THE LEGAL FRAMEWORK AND THE NATIONAL CURRICULUM GUIDELINES FOR QUILOMBOLA SCHOOL EDUCATION (DCNS/EEQ)

The legal recognition of EEQ is a fundamental milestone for the decolonization of the Brazilian curriculum. Resolution CNE/CEB No. 8, of November 20, 2012, defines the National Curriculum Guidelines for Quilombola School Education in Basic Education (BRASIL, 2012).



These guidelines establish the right to a differentiated education, which respects and values quilombola history, culture, identity and territoriality.

The EEQ is based on principles such as the pedagogy of ancestry, the relationship with the territory and the appreciation of traditional knowledge. The territory, in this context, is not only a physical space, but a space of memory, of the production of life and of resistance.

The implementation of the DCNs/EEQ represents a significant advance in the recognition that the Brazilian curriculum, historically Eurocentric, needs to dialogue with other rationalities and epistemologies. As Gomes (2017) points out, the quilombola presence in schools requires the incorporation of anti-racist perspectives and the appreciation of African ancestry, breaking with homogeneous teaching patterns. Thus, the legal framework not only legitimizes rights, but inaugurates new pedagogical practices committed to diversity.

Resolution CNE/CEB No. 8/2012 states that Quilombola School Education must be built collectively, involving leaders, community associations and guardians of traditional knowledge. According to Arruti (2006), the social organization of quilombola communities is based on cooperation and community life, which requires that the school curriculum also adopt participatory forms of construction. In this way, educational practices begin to reflect the cultural dynamics of the territory itself.

Another important point of the Guidelines is the understanding that the quilombola school must strengthen the autonomy of the communities in the management of their own life projects. Almeida (2010) emphasizes that the quilombola territory is a political space, where memory, land and the continuity of the traditional way of life are disputed. In this sense, the DCNs reinforce that the school cannot be disconnected from territorial struggles, and must act as a tool for protection, care and environmental appreciation.

Territoriality, as a curricular axis, also guides contextualized pedagogical practices. Activities related to cultivation, sustainable extractivism, water use and biodiversity management are understood as legitimate knowledge that should be included in the curriculum. According to Silva and Silva (2019), traditional quilombola ecological knowledge has great educational potential, as it articulates science, culture, and spirituality. This approach reinforces that learning about the environment is also learning about belonging, collectivity, and identity.

Finally, by bringing school, territory and ancestry closer together, the DCNs/EEQ strengthen a critical and situated environmental education. Ecological Citizenship, in this context, is not limited to individual behaviors, but involves the collective defense of the



territory, the preservation of traditional practices, and resistance against forms of environmental racism that directly impact quilombola communities. Thus, the EEQ becomes an instrument of social justice, ensuring that rural-quilombola schools develop curricula that are alive, affective and committed to sustainability and black identity.

3.2 TERRITORIALITY AND IDENTITY AS CURRICULAR AXES

In the DCNs/EEQ, territoriality and identity are inseparable. The curriculum must be built from the local reality, transforming the school's surroundings – the countryside, the river, the forest, the yard – into living learning laboratories. Ecological Citizenship, therefore, is taught and experienced in practice, through the community management of natural resources and the defense of the territory against external threats.

Quilombola territoriality, as Sueli Carneiro (2021) points out, is deeply linked to the fight against epistemicide⁶, that is, against the historical erasure of knowledge produced by black populations. By assuming the territory as a source of knowledge and as a pedagogical text, the quilombola curriculum breaks with school practices that disregard the black experience in the construction of Brazil. This rupture is essential for an education that recognizes the value of the knowledge produced within communities and by African ancestry.

Lélia Gonzalez (2020) also contributes to this perspective by stating that black identity in Brazil is constituted from "processes of cultural, linguistic, and territorial resistance." His reflection dialogues directly with the DCNs/EEQ, as it reinforces that quilombola pedagogy must promote the recognition of Afroterritoriality⁷, the spiritual, historical, and symbolic connection between black people and the space they inhabit. Thus, the territory is not only the setting for learning, but the foundation of collective existence itself.

Kabengele Munanga (2019) adds that the construction of black identities requires confronting the colonial logic that has historically defined the quilombola territory as a marginal space. For the author, the curriculum needs to act against stigmas and promote the appreciation of memory, traditional agricultural systems, forms of community organization and African cosmologies present in quilombos. Ecological Citizenship, in this context,

⁶ A systematic process of **suppression, erasure, and delegitimization of the knowledge, cultures, and ways of life of oppressed groups**, such as black and indigenous peoples, by a dominant culture, usually Eurocentric and Western.

⁷ Defined as "the way of existing, learning and resisting that emerges from the historical, spiritual and ecological relationship between black populations and the territories that collectively build, care for and resignify. It is a living territoriality, woven by ancestral memory, traditional knowledge, community protection of nature and the affirmation of quilombola identity, where land is understood not as a resource, but as a relationship and continuity of life." (SILVA, Manoel Messias, 2025).

reinforces practices of resistance that guarantee environmental preservation as a continuity of community life.

Cida Bento (2022), when discussing institutional racism and environmental inequalities, points out that rural black communities live under constant territorial violation, whether by land grabbing, agribusiness, or the absence of public policies. Incorporating this analysis into the curriculum, especially in quilombola education, is essential for students to understand that environmental defense is also the defense of human rights and social dignity. The school, therefore, becomes a strategic space for denunciation, critical awareness and collective mobilization.

Finally, Djamila Ribeiro (2023) emphasizes that the recognition of black identities involves valuing the narratives of these communities. When the school uses the countryside, the backyard, the rivers, the traditional festivities, medicinal plants and handicrafts as curricular contents, it is producing what the author calls "politics of existence", which affirm life, history and belonging. This expands environmental education beyond technicist practices and places it as an ethical, political and cultural dimension of quilombola formation.

3.3 THE LITERATURE REVIEW ON EE IN QUILOMBOLA SCHOOLS

Scientific production on EE in quilombola schools has grown, especially in theses and dissertations, reflecting the importance of the theme. The analysis of this literature reveals some central themes:

- **Sustainable Use of Resources and Land Management:** Many studies focus on quilombola agricultural and extractive practices, such as agroecology and the use of medicinal plants, integrating this knowledge into the teaching of Science and Biology. The pedagogical garden, for example, is cited as an effective practice to promote sustainability and food security (SILVA et al., 2024).
- **Traditional Medicine and Ancestral Knowledge:** The valorization of popular healing and knowledge about the properties of plants is seen as a form of cultural rescue and pedagogical practice in defense of sustainability (SILVA et al., 2024).
- **Relationship with the Territory and Struggle for Rights:** EE in quilombola schools is intrinsically political, as it is linked to the struggle for land titling and the guarantee of rights. Training for social participation and ecological citizenship is an explicit objective in several studies (LÚCIO, 2023).



The systematic review of the literature points out that the school often still makes local knowledge invisible, and a continuous effort is needed for public policies and pedagogical practices to consider the culture and territory of quilombos (DUARTE et al., 2024). In addition to sustainable management practices, several studies point out that Environmental Education (EE) in quilombola schools in the Northeast strengthens **cultural identity and the appreciation of local knowledge**.

For Santos (2022), including music, cuisine, traditional festivities, and handicrafts in the curriculum enables meaningful learning, as it connects the student to their history and collective memory. This integration makes the school a space of cultural resistance and environmental preservation simultaneously.

Another aspect highlighted in the literature is the need for a **dialogical and community pedagogy**, which dialogues with traditional knowledge and contemporary challenges. According to Oliveira and Matos (2023), the teaching of Science and Biology in quilombola schools in the Northeast should articulate experimental practices with knowledge of family farming, water management, and native flora. This approach favors the formation of critical citizens who are aware of the importance of sustainability in their territory.

The relationship between **territory and the struggle for rights** continues to be central to research on EE in quilombos. Costa (2021) observes that the school acts as an agent of empowerment by teaching students about environmental legislation, protection of green areas, and the importance of land titling. From this perspective, Ecological Citizenship becomes a daily practice, based on the defense of the territory and the preservation of natural resources, strengthening community autonomy.

The valorization of **traditional medicine and ancestral knowledge** is another recurring axis. Silva and Andrade (2022) highlight that quilombola schools can incorporate the study of medicinal plants and popular healing practices into pedagogical projects, simultaneously promoting community health and respect for biodiversity. This approach shows how scientific knowledge and traditional knowledge can dialogue and complement each other in school education.

Therefore, the literature review indicates that, although the advances are remarkable, there are still challenges for the full integration of EE into the quilombola curriculum. According to Freitas (2023), there are gaps in teacher training, in the availability of pedagogical resources, and in the institutional recognition of local knowledge. Overcoming these barriers requires robust public policies, continuing education, and the active



engagement of communities in the construction of environmentally sustainable educational practices.

3.4 TEACHING PRACTICES AND PEDAGOGICAL PROJECTS

The most successful teaching practices in quilombola schools are those that break with the traditional disciplinary structure and adopt an interdisciplinary and contextualized approach, valuing the territory, ancestry, and community knowledge. Community research projects, for example, involve students in the investigation of the history, culture and environmental practices of the community itself, using interviews with the elders, mapping of the territory and direct observation of productive activities.

Curricular integration becomes possible by using the festive calendar and the productive cycle of the community planting, harvesting and celebrations as thematic axes for the teaching of various disciplines, including Science, Biology and Environmental Education. In this sense, the Political-Pedagogical Project (PPP) assumes a central role, and must be elaborated in a participatory way, involving students, teachers, families, and community leaders, ensuring that the principles of Quilombola School Education (EEQ) and Critical Environmental Education are present in all school actions (Gonçalves, 2024; Souza, 2022).

According to Silva (2023), in quilombola communities in Paraíba, the implementation of pedagogical gardens and agroecological systems at school strengthens not only scientific learning, but also the affective and cultural bond with the land. These practices allow students to understand the importance of environmental preservation and sustainability while experiencing the ancestral knowledge transmitted by their families. The school, therefore, ceases to be just a space for formal teaching to become a living laboratory for learning, research and care for the territory.

In Rio Grande do Norte, Ferreira's research (2022) demonstrates that the articulation between traditional festivals, community rituals, and the teaching of school content promotes meaningful learning, as it brings students closer to their own sociocultural context. By integrating history, culture and environmental practices, the school contributes to the formation of critical citizens, aware of their rights and the importance of defending the quilombola territory. Environmental education, therefore, is not treated as an isolated subject, but as a transversal axis that runs through all school activities.

Lima and Carvalho (2023) point out that projects for mapping the territory and cataloguing medicinal plants in quilombola schools stimulate student protagonism and the



appreciation of local knowledge. Students learn to identify native species, understand ecological cycles, and apply this knowledge in practical actions, such as community gardens and natural health workshops. This type of approach strengthens autonomy and collective responsibility, central characteristics of quilombola Ecological Citizenship.

Therefore, recent literature highlights the importance of pedagogical strategies that promote intergenerational dialogue. According to Costa (2022), the participation of elders and community leaders in school activities ensures that traditional knowledge is transmitted authentically, reinforcing quilombola identity and cultural preservation. This articulation between community and school makes it possible for the territory to be understood not only as a physical space, but as a source of memory, knowledge and resistance, consolidating Environmental Education as an instrument of social justice and sustainability.

Finally, Environmental Education in quilombola schools proves to be a powerful instrument of Ecological Citizenship as it is based on identity, ancestry and the defense of the territory. By transforming the school into a space of resistance and production of contextualized knowledge, the autonomy of communities, cultural appreciation, and the formation of critical subjects engaged in the construction of a more just, sustainable, and democratic future are strengthened (Ferreira, 2022; Lima & Carvalho, 2023).

4 EDUCATION IN THE SEMI-ARID REGION AND THE PEDAGOGY OF COEXISTENCE

It is based on a critical understanding of the territory, overcoming stereotyped views that reduce the Sertão to drought and backwardness. As Roberto Malvezzi (2007) states, the semi-arid region "is not condemned by drought, but by the lack of adequate policies and the lack of understanding of its biome". Thus, education assumes a strategic role in valuing the climate, soil, culture and ways of life of the sertanejo population, promoting a positive and realistic reading of the region. This renewed look allows us to understand the semi-arid region as a place of potentialities and not of fatalism.

It is within this perspective that the **Pedagogy of Coexistence with the Semi-arid emerges**, a proposal disseminated by ASA Brasil, which argues that "it is not a matter of fighting against drought, but of living with it" (ASA, 2013). This pedagogy breaks with the traditional model of combating drought, based on emergency and welfare policies, and proposes a contextualized education, aligned with the real needs of the communities. In this sense, Aquino (2015) reinforces that coexistence is "a pedagogical practice that integrates local knowledge, social technologies and community participation". Thus, the school starts to



work with themes such as water collection, sustainable agriculture and preservation of the caatinga.

Education contextualized in the semi-arid region is also articulated with Freire's thought. Paulo Freire (1987) reminds us that education needs to start from the concrete reality of the subjects, stating that "there is no more knowledge or less knowledge: there is different knowledge". This principle guides pedagogical practices that value the experience of farmers, quilombolas, rural youth, and traditional communities. By integrating this knowledge into the curriculum, the school strengthens the sertanejo identity and breaks with a teaching that is detached from everyday life. As Sena and Santos (2018) point out, coexistence is also a "process of emancipation", as it forms critical subjects who are aware of their territory.

Another fundamental element is the appreciation of the culture of the Semi-arid region. Andrade (2011) indicates that the Northeast is the result of a deep relationship between "land, climate and society", and that understanding the territory requires recognizing its history and resistance. Thus, practices such as productive backyards, community meetings, oral memory, regional music, agroecological fairs and caatinga management techniques are now part of the school curriculum. As research by ASA (2013) shows, when the community enters school, the educational process becomes more meaningful and strengthens ecological citizenship.

Finally, Education in the Semi-arid Region and the Pedagogy of Coexistence point to the construction of an education committed to social justice, sustainability and autonomy. This perspective breaks with models imposed from outside and values solutions built with the community. As Malvezzi (2007) summarizes, the semi-arid region "is viable, beautiful and fertile when looked at by those who live in it". Thus, educating in the semi-arid region means promoting critical hope, recognizing the power of the territory and forming subjects capable of transforming their own reality.

4.1 THE CONTEXT OF THE BRAZILIAN SEMI-ARID REGION: CHALLENGES AND POTENTIALITIES OF THE CAATINGA

The Brazilian semi-arid region is a territory of great sociocultural diversity, where the Caatinga appears as an exclusive biome and deeply interconnected to the ways of life of traditional populations. According to Alencar and Moura (2021), understanding the semi-arid region requires looking beyond climatic conditions, recognizing the sertanejo and quilombola populations as historical protagonists of this space. The title of this chapter, when addressing



the challenges and potentialities of the Caatinga, calls for an analysis that integrates environment and culture, highlighting that quilombola communities build their existences in constant dialogue with this unique biome.

The Caatinga is home to a rich biodiversity adapted to the irregularity of rainfall, sustaining productive practices that, historically, are managed by rural black populations. Studies by Gomes (2020) show that many quilombola communities in the semi-arid region have developed agricultural systems based on the diversity of native plants, the solidarity economy, and the sustainable use of resources. This ancestral relationship with the territory reveals that the semi-arid region is not a space of absolute scarcity, but of sophisticated ecological knowledge that guarantees the continuity of life even in adverse conditions. Thus, the title highlights not only the environmental challenges, but also the potentialities built by these peoples.

The history of public policies for the semi-arid region, however, is marked by inequalities that directly affected quilombola communities. As Santos (2019) states, "drought relief" programs reinforced concentrated power structures, benefiting large landowners while marginalizing traditional groups. In quilombola communities, this exclusion is expressed in limited access to water, lack of territorial recognition and the absence of structuring investments. The title of the chapter, by mentioning "challenges", should include this political and social dimension, recognizing that these communities have historically been silenced in decisions about the use of Caatinga resources.

Despite the adversities, the quilombola communities of the semi-arid region have stood out in the construction of practices of coexistence with the semi-arid region based on autonomy and cultural strengthening. Research by Oliveira and Brito (2022) shows that social technologies – such as dams, plate cisterns, productive backyards, and seed banks – have been incorporated into quilombola practices, increasing water and food security. These examples illustrate the "potentialities" cited in the title, showing that the Caatinga can be managed responsibly when traditional knowledge is recognized and valued. In this context, quilombola protagonism becomes central in the formulation of sustainable strategies for the semi-arid region.

Finally, understanding the semi-arid and the Caatinga from the perspective of quilombola communities means shifting one's gaze from a vision that associates the sertão only with scarcity, to a vision that recognizes resistance, creativity, and ancestry. As Lima (2023) points out, quilombos are spaces of memory and struggle, but also of ecological and

social innovation. Thus, the title *Challenges and Potentialities of the Caatinga* is only complete when we integrate the experience of these peoples, who constitute an essential part of the environmental and cultural history of the Semi-arid region. Therefore, discussing this biome requires understanding how it sustains, inspires, and is transformed by the quilombola knowledge that has been reinventing life in the hinterland for centuries.

4.2 OVERCOMING THE "DROUGHT INDUSTRY" FROM THE PERSPECTIVE OF COEXISTENCE

The Pedagogy of Coexistence, developed by social movements in the countryside, such as the Articulation of the Brazilian Semi-Arid (ASA), proposes a break with the logic of combat. Instead of fighting against the climate, the focus is on adaptation and valuing local knowledge to live with dignity in the semi-arid region (MATTOS, 2010). This paradigm shift is the core of Ecological Citizenship in the Sertão, as it transforms the sertanejo from a passive victim into an active and resilient subject.

Authors such as Malvezzi (2012) claim that the so-called "drought industry" fed on the idea that the population of the semi-arid region would be unable to survive without grandiose external interventions, favoring political and economic elites. This view reinforced the concentration of water, land and resources, perpetuating historical inequalities. The perspective of Coexistence, however, "deconstructs this imaginary" (MALVEZZI, 2012), by demonstrating that simple, low-cost practices based on popular knowledge such as rainwater harvesting, agroecology and sustainable management of the Caatinga have proven effectiveness. Thus, overcoming the drought industry is not only technical, but profoundly political.

Coexistence with the Semi-arid strengthens an ecological ethic⁸ based on care, rational use of resources and community cooperation. For Sampaio and Silva (2018), this approach is directly articulated with the notion of Ecological Citizenship, since it encourages practices of social participation, water autonomy and protagonism of rural populations. In this model, water ceases to be an instrument of power and becomes a right ensured by social technologies, built in collective efforts and collective training processes. In this way, the

⁸ field that guides human responsibilities towards nature, recognizing that all living beings, ecosystems and elements of the environment have their own value and must be considered in moral decisions. It proposes a relationship of respect, care and environmental justice, defending practices that ensure ecological balance, the protection of territories and the well-being of present and future generations.



pedagogy of coexistence reveals itself to be a transformative educational practice, which articulates learning, territory and social emancipation.

The quilombola communities of the semi-arid region exemplify the power of this approach. Many quilombos have historically developed techniques for land management, water storage and sustainable use of the Caatinga that dialogue with the principles of Coexistence. According to Oliveira (2021), these practices express an ancestral relationship with the territory, marked by reciprocity and collective management. By recognizing this knowledge, the Pedagogy of Coexistence breaks with the Eurocentric logic of "combat" and incorporates black and sertanejo epistemologies as the foundation of sustainability. Thus, overcoming the drought industry also means recognizing the contribution of these traditional peoples to the construction of a fairer and more autonomous semi-arid region.

The perspective of Coexistence requires that schools, universities and public policies commit to the critical formation of the new generations. As Albuquerque (2020) argues, educating for Coexistence is to promote an ecological reading of reality, allowing subjects to understand the climatic, social, and political aspects that structure life in the Sertão. The school, especially in the quilombola and sertanejo regions, becomes a privileged space to cultivate Ecological Citizenship, showing that living in the semi-arid region is not facing a natural enemy, but learning to build sustainable relationships with the environment and the community. Thus, Coexistence ceases to be just a technical proposal and becomes an ethical, political and pedagogical project.

4.3 RURAL EDUCATION AND THE PEDAGOGY OF COEXISTENCE WITH THE SEMI-ARID

Rural Education, as a teaching modality, seeks to guarantee the right to education for rural populations, respecting their specificities. In the semi-arid region, it is directly articulated with the Pedagogy of Coexistence, which is manifested in specific principles and methodologies:

- **Contextualization:** The curriculum should start from the student's reality, using the environment, culture and the local economy as a starting point for knowledge.
- **Interdisciplinarity:** Living with the semi-arid region requires the integration of knowledge, such as water management (cisterns, underground dams), food production (agroecology) and local culture.



- **Pedagogy of Alternation:** Adopted by Agricultural Family Schools (EFAs), this methodology alternates school-time with community-time, allowing the student to apply theoretical knowledge in their reality and bring the practical knowledge of the family to the classroom (NASCIMENTO, 2016).

Rural Education in the Semi-arid region also reinforces the appreciation of traditional knowledge, a subject widely discussed by Caldart (2015), who states that the school should be a space where knowledge of the land, water, native plants and community practices are recognized as legitimate and fundamental for the construction of scientific knowledge. This means that the school does not replace the knowledge of the community, but integrates it, allowing the student to perceive his peasant identity as a strength and not as an obstacle. Thus, the Pedagogy of Coexistence strengthens educational processes that reaffirm the sertanejo culture and territorial belonging.

Another central aspect is the role of rural populations in the construction of the curriculum and school practices. For Fernandes (2020), Rural Education should be thought of "with" the subjects of the countryside and not just "for" them, ensuring direct participation in pedagogical decisions, such as choosing projects, organizing the calendar, and prioritizing generating themes. This community involvement is an essential element of Coexistence with the Semi-Arid Region, as it allows the school to respond to real needs, such as water security, food sovereignty, protection of the Caatinga, and strengthening of agroecological practices. Thus, the educational process approaches community life and becomes more meaningful.

Finally, the articulation between Rural Education and the Pedagogy of Coexistence contributes to the formation of a critical Ecological Citizenship committed to social transformation. According to Araújo (2019), educating in the semi-arid region implies teaching students to understand climate dynamics, the historical inequalities that have marked the region, and the importance of social technologies to live with dignity. This means that the school must promote a political and ecological reading of the territory, encouraging practices that develop autonomy, solidarity and collective responsibility. In this way, education in the semi-arid region becomes an essential tool to overcome the logic of combating drought and build a project for the future based on sustainability and social justice.



5 CONVERGENCES AND CHALLENGES FOR ECOLOGICAL CITIZENSHIP

The construction of Ecological Citizenship in Brazil emerges as an urgent need in the face of socio-environmental crises that cross urban, rural, quilombola and sertanejo territories. More than a theoretical concept, it is expressed as daily practice, active participation and shared responsibility for the preservation of the commons. In this scenario, different contexts such as semi-arid schools, traditional communities and quilombola educational spaces reveal their own paths of social and environmental engagement, evidencing that ecological citizenship is not homogeneous, but plural and rooted in the cultural and territorial realities of each people.

However, despite the convergences around valuing the environment, social justice and community participation, challenges persist that hinder the consolidation of this citizenship. Socio-environmental inequality, the lack of continuous public policies, and the invisibility of traditional knowledge still limit the construction of transformative practices. Thus, reflecting on the convergences and challenges that cross different educational experiences allows us to understand how Ecological Citizenship can be strengthened as an ethical and political project, capable of promoting new forms of coexistence, resistance and care for life in all its dimensions.

5.1 POINTS OF CONVERGENCE: WHAT THE QUILOMBOLA AND SERTANEJO EXPERIENCES TEACH

The educational experiences developed in quilombola and sertanejo schools converge in the recognition of the territory as a basis for the formative process. For Costa (2022), both realities affirm that community life and the environment constitute the raw material of learning, allowing the school to dialogue with practices of resistance, water management, land management, and biodiversity preservation. In the case of the quilombola communities of Paraíba, this dialogue is even more intense because of the ancestral relationship with the Caatinga and the collective memory of resistance to environmental racism and land inequality.

Another point of convergence is the valorization of culture as a structuring axis of student education. Research by Mendonça and Paes (2021) shows that quilombola schools, as well as rural schools in the hinterland, understand culture as a pedagogical element, integrating artisanal knowledge, traditional cuisine, land care practices, and community celebrations into curricular approaches. This strengthens the ethnic-racial and territorial



identity of young people, allowing them to recognize themselves as part of a collective with its own history.

The importance of community participation in educational processes is also highlighted. In both contexts, school planning involves meetings with families, community councils and local leaders, creating a democratic and situated management. Freire and Gomes (2023) state that this participation articulates education, territorial struggle, and community strengthening, especially in vulnerable communities that face environmental injustices, such as lack of access to water and degradation of the Caatinga biome.

Thus, both quilombos and sertanejo communities share the challenge of survival in territories marked by water vulnerability and socioeconomic inequality. These difficulties, far from weakening educational processes, become engines of pedagogical innovation. For Vieira (2020), schools in these territories develop methodologies for climate adaptation, school agroecology, preservation of native seeds, and strengthening of social technologies. Thus, both realities are positioned as poles of Ecological Citizenship and environmental justice.

5.2 THE CENTRALITY OF TERRITORY AND CULTURE IN THE CONSTRUCTION OF THE CURRICULUM

The centrality of territory and culture in the construction of the curriculum represents a break with traditional models that ignore the experiences, identities and sociocultural practices of students. When the territory is recognized as a space for the production of knowledge and not just as a backdrop, the curriculum begins to dialogue directly with reality, environmental challenges, community experiences and the local way of life. In this sense, the territory is not understood only as a geographical space, but as a set of historical, affective and symbolic relationships that structure community life. Culture, in turn, becomes the structuring axis of the training process, ensuring that ancestral knowledge, collective memories, and traditional practices assume the status of legitimate and curricular knowledge.

Thus, by incorporating territory and culture as central elements, the curriculum takes on a contextualized and democratic perspective, capable of promoting belonging, identity, and critical awareness. This approach is aligned with the Ecology of Knowledge defended by Boaventura de Sousa Santos, which proposes the dialogue between scientific knowledge and popular knowledge, recognizing epistemic diversity as an educational power. In quilombola and sertanejo schools, this centrality consolidates pedagogical practices that



value the land, ancestry, resistance, and local environmental dynamics, contributing to an education focused on citizenship, sustainability, and social justice. In this way, the curriculum becomes alive, meaningful and committed to the concrete reality of the subjects who build and experience it.

For Batista (2022), the territory expresses ancestry, struggle, and rights, making learning be crossed by the materiality of quilombola life: the coco de roda dance, resistance agriculture, sustainable extractivism, and care for water sources. The territory becomes, therefore, a living pedagogy, which shapes contents, methodologies and school times.

In the same way, in schools in the countryside of the semi-arid region, guided by the Pedagogy of Coexistence, the territory is understood as a dynamic educational space. According to Rodrigues (2021), practices such as visiting underground dams, studying the flora of the Caatinga, soil analysis, and agroecological management are part of the curriculum because they respond to the real needs of the community. The semi-arid region, in this sense, is no longer seen as a hostile environment and becomes a territory of potential. Culture also occupies a structuring role in the curricular organization of these spaces. In the quilombola communities of Paraíba, culture is understood as a memory of resistance and as a tool for identity affirmation. For Nóbrega and Lira (2023), working on quilombola culture in school means valuing erased histories, strengthening self-esteem, and building anti-racist practices. In the broader sertanejo context, the sertanejo culture such as the aboio, the reisado, the fairs, the knowledge of the swidden and the respect for the rainfall cycle also becomes a pedagogical device to interpret the territory and its socio-environmental relations.

The construction of the territorialized and culturally situated curriculum promotes a broader understanding of Ecological Citizenship. This is because it allows us to see the environment as a network of relationships between nature, history and society. Carvalho (2022) states that territory-based curricula broaden students' critical perception by revealing environmental, racial, and economic inequalities that impact quilombos and vulnerable rural communities. Thus, the curriculum becomes an instrument of social transformation and defense of the territory.

Table 2

Axis of Convergence	Quilombola Schools	Sertaneja Schools
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Relationship with the Territory	Territory as a space of ancestry, memory and resistance; struggle for land titling.	Territory as a space for coexistence and resilience; overcoming the logic of drought.
Ecology of Knowledge	Appreciation of traditional medicine, forest management and ancestral knowledge.	Valuing social technologies for water collection and agroecological practices.
Ecological Citizenship	Training of political subjects in the defense of the territory and against environmental racism.	Formation of autonomous and transformative subjects, capable of living with dignity in the semi-arid region.
Methodology	Pedagogy of Ancestry; community research projects.	Pedagogy of Coexistence; Pedagogy of Alternation.

In both cases, Ecological Citizenship is inseparable from **Social Justice** and **Environmental Justice**. It is not an abstract EE, but an education engaged in solving the concrete problems of the community, such as water scarcity, the threat of deforestation or cultural invisibility.

6 CONCLUSION

The analysis developed in this chapter allowed us to verify that Education and Ecological Citizenship, when examined from the perspective of quilombola and sertanejo realities, reveal a fertile field of pedagogical practices that emerge directly from the territory, ancestral memories and historical resistance of these communities. The synthesis of the findings demonstrates that, in these contexts, Ecological Citizenship goes beyond the conceptual dimension and presents itself as a living social practice, marked by the defense of the land, the appreciation of cultural traditions, the protection of common goods and the collective construction of sustainable ways of life. The literature review shows that quilombola and sertanejo schools play a central role in the formation of ecological subjects, politically engaged, aware of socio-environmental inequalities and capable of elaborating alternatives to face them.

When observing Quilombola School Education, guided by the National Curriculum Guidelines and committed to valuing black identity, one can perceive an educational model that breaks with colonial narratives and fosters processes of ethnic-racial affirmation, community belonging and defense of ancestry. In the sertanejo schools of the semi-arid region, anchored in the Pedagogy of Coexistence, practices emerge that recognize the Caatinga as a space for life and learning, overcoming discourses of scarcity and replacing



them with perspectives of autonomy, creativity and resistance in the face of climatic adversities. These two models, although distinct, converge to a conception of environmental education that is critical, transformative, and deeply committed to social justice.

The contributions of these traditional communities to education and to the environmental debate are significant and often underestimated by hegemonic educational policies. The quilombola and sertanejo legacy reveals that the contemporary environmental crisis cannot be overcome only by technological innovations or conservation discourses, but rather through a radical revision of the values that guide society, the democratization of decision-making, and the effective inclusion of historically silenced voices. The wisdom accumulated by generations of quilombola families — such as those in Paraíba, who fight for the preservation of their territories, culture and ways of life — demonstrates that sustainability is also memory, identity and territorial security.

In this sense, the Ecological Citizenship taught and practiced in these schools works as a permanent exercise of criticism and social reconstruction. It invites each subject to recognize their responsibility in the protection of life, to value local knowledge and to understand that the socio-environmental struggle is inseparable from the struggle for human rights, racial equity and historical justice. By illuminating these practices, this chapter reinforces that quilombola and sertanejo experiences are true beacons that point to possible paths to a future in which development and environmental care go hand in hand, guided by an ethic of solidarity, respect for diversity, and harmonious coexistence with nature.

Thus, Brazilian society is called to support, strengthen and respect these educational experiences, which are presented as real alternatives in the face of a world marked by ecological crises, extreme inequalities and territorial conflicts. Recognizing the power of these communities, especially the quilombolas of Paraíba, who transform the school into a space of resistance and hope, is fundamental to build an ecological citizenship that is plural, inclusive and truly emancipating.

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