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Permaculture as a Reference for Curriculum Adequacy for Countryside Schools Jurisdicted by the Teaching Board of the Region of Mirante do Paranapanema/SP

Moacir Gonçalves
Mestrando do Programa de Pós-Graduação da UNESP
moacir.goncalves@unesp.br

Fernando Sérgio Okimoto
Professor Doutor, UNESP, Brasil.
fs.okimoto@unesp.br

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ABSTRACT

The rural education is an educational methodology that pursues to link the disciplines of the Common National Curricular Base with the specificities of the knowledge and experiences of the community living in rural areas, promoting their emancipation. For this to occur, it is necessary to change the schools in rural areas, especially their Political Pedagogical Projects, which should reflect the local identity. The Brazilian education public politics created and implemented in recent years both at federal and state levels, because of a neoliberal vision, ended up directing the teaching in schools to rigid curricula, little autonomy from the teacher and disconnection between what is taught and the students experience. Consequently, the metamorphosis of rural schools into rural schools has become very difficult. In the area served by the Mirante do Paranapanema Regional Education Board there are eleven schools installed in rural settlement projects that follow traditional educational politics. Those schools could better fulfill their role as agents of social promotion if they adopted the premises of rural education. Permaculture, by working with themes from all areas of human knowledge with the objective of achieving a sustainable relationship between man and nature, can be the integrating axis for the transformation of these schools. The challenges are enormous, but the dissemination of knowledge about the references of rural education and permaculture can be the trigger to mobilize the rural and school communities to transform their schools.

KEYWORDS: Permaculture. Rural Education. Education Political Project.

1 EDUCATION OF THE RURAL AREA

The conception of a new educational methodology for people who live in and rely on rural environments, which translates into a curriculum, spaces, and school schedules suited to the reality of this population, is a proposition that has been taking shape as theory and being put into practice in the last decades in Brazil, in some schools.

In this scenario, the actions of universities and rural social movements, particularly the Landless Rural Worker's Movement (Movimento dos Trabalhadores Rurais Sem Terra – MST), stand out in the establishment of research avenues and the organization of schools, whose Pedagogical Political Projects break away from the model of a traditional and disconnected curriculum that is still employed in the majority of rural schools across Brazil.

The concept of Rural Education emerged at the National Meeting of Educators of Agrarian Reform – ENERA, on the campus of the University of Brasília – UnB, in the year 1997. Following this event, public education for rural populations began to be envisioned from the perspective of the rural world, considering both its context in terms of its specific culture, as well as its way of understanding time, space, the environment, and its way of life, family organization, and work. A pedagogical proposal guided by these assumptions should integrate the subjects of the National Common Base with content systematized in accordance with the reality of the rural setting.

> [...] This way of thinking, the differences between a school "in the rural area" and a school "education of the rural area" are at least two: while a school "education in the rural area" represents a pedagogical model linked to a ruralist tradition of dominance, a school "education of the rural area" represents a proposal for constructing a pedagogy, drawing on the diverse experiences of its subjects: the rural populations. (CALDART, 2017, p. 67-68).

The author emphasizes the importance of understanding "educação no campo"

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(education in the rural area) and "educação do campo" (education of the rural area) correctly. The contraction "no," combining "em" (in) with "o" (the), means "inside" – education inside the rural area. The contraction "de" (of) with "o" (the) means "belonging to" – education belonging to the rural area. These two education concepts are distinctly opposite.

The pedagogical political project of a Rural School must reveal the social relations of production, the knowledge inherent in the daily lives of the population, the political organization, and the economic negotiation of products. It should discover and incorporate everyday knowledge to construct teaching plans and the pedagogical process.

> [...The curriculum development should be oriented towards issues tied to the environment it's in, namely the community and the social and cultural context it belongs to. Thus, clarity and close attention to the interconnected social relationships are essential during the curriculum planning and construction for rural schools. This approach aims to enhance the teaching process within those schools concerning the cultural and social knowledge of those populations. (FURTADO; CARMO, 2021 p. 6).

The school built upon the outlined principles advocates education rooted in the identity and unique traits of the rural population. This approach allows for the uncovering and comprehension of the social, environmental, and economic relationships that shape the lives of these communities. Moreover, it holds the potential to catalyze the rural population's empowerment across all aspects of life.

1.1 The Impact of the National Common Curricular Base and the New São Paulo Curriculum in Achieving Rural Education

In 2017, the National Common Curricular Base (BNCC) was approved, a document that outlines the learning rights of all students in Brazil. From then on, all states and municipalities started developing new guidelines to reformulate the curricula of public and private schools.

Lima (2021, p. 2) explicitly expresses concern "regarding the actions of state and municipal education departments regarding the implementation of the BNCC, especially in rural schools, without a critical assessment of the damages that this public policy may bring to the education of thousands of children and young people studying in the public system." It further emphasizes that concerns escalate when it is observed that "state and municipal departments have rushed the implementation process without broad discussions with schools and education professionals."

In mid-2020, the State Council of Education (CEE) of São Paulo approved the document that establishes the rules for the São Paulo High School Curriculum (CPEM), making the people of São Paulo pioneers in implementing the changes established by the New High School Law - Law No. 13,415 of 2017 (BRAZIL, 2017).

Discussing partnerships between the public and private sectors, particularly in public educational policy through "philanthropic" actions, Goulart and Moimaz (2021) explicitly state that:

> In the case of São Paulo, reflecting on the CPEM, one key moment in this process is the São Paulo Education Commitment Program (PECSP), launched in 2011 as a result

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> of a partnership between the Department of Education (Seduc-SP) and the Education Partners Association (which branches out into various Non-Governmental Organizations - NGOs, foundations, and corporate institutes). The announced objectives of PECSP are to enhance the quality of education through large-scale assessments that are internationally comparable, and these goals are expected to be achieved through the reorganization of school relationships and the enhancement of school management, with a focus on corporate management principles; monitoring the curriculum and learning processes; and to improve the professional attractiveness of the teaching profession (GOULART; MOIMAZ, 2021, p. 15).

The PECSP aims to improve the quality of education through the reorganization of school relationships and the enhancement of school management, which is now guided by corporate management principles. It also advocates for a rigorous monitoring of the curriculum and learning through the implementation of frequent and large-scale assessments that are internationally comparable.

Analyzing conflicts in the official curriculum of the State of São Paulo, implemented in 2008, Blóis (2017, p. 115) emphasizes that the texts of this document:

> 1. claim to emphasize the learning of more general competencies and skills, yet these, in addition to being specified, always come in the wake of predetermined teaching content;
> 2. claim to support a shift in focus from teaching by the teacher to the learning of the student, but they establish what and how the teacher should teach, and ultimately;
> 3. claim to value the students' knowledge and their immediate reality, but present a curriculum that specifies both content and skills to be developed in each quarter and at each grade level, which materializes in workbooks for teachers and students to use in their classes (BLÓIS, 2017, p. 117).

The author further emphasizes that "the curriculum organizes the curricular materials used by teachers and students, ordering a curriculum of learning situations that, in general, do not reflect the stated concern with the "common life experience of students, teachers, and the community" (BLÓIS, 2017, p. 119).

With the implementation of the new São Paulo Curriculum in 2019, which was reformulated to align with the BNCC, it can be highlighted that this:

> [...] emphasizes the need for students, throughout basic education, — especially in the final years of elementary education —, can develop an individualized Life Project, allowing them to identify their aspirations, as well as the strengths and challenges to achieve them" (STATE OF SÃO PAULO, p. 38).

In the middle of this, the São Paulo state government introduces the Inova Program Education, in partnership with the Ayrton Senna Institute, reorganizing the curriculum matrix, Extending the school day, and introducing Elective, Technology, and Life Project disciplines. These new disciplines arise from the rationale that, with them:

> [...] students can experience more contemporary and integral educational activities, aiming to ensure a higher level of reflection, choice, participation, engagement, and

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> preparation for students to plan and achieve their present and future goals" (SÃO PAULO, 2019).

Goulart and Alencar (2018, p. 344) assert that national and state-level curriculum policies begin to align, highlighting "Inova Education Program" as part of the implementation of the High School Reform and BNCC. According to Ball (2020) cited by GOULART (2018), the Inova Education Program "represents a sui generis type of endogenous privatization that occurs through educational policy, giving private agents an increasingly active role in policy formulation." Goulart and Alencar (2018, p. 358) emphasize that these recent reforms seek to directly link schools and the increasingly informal job market because:

> [...] aiming to shape a new worker who embraces competition, entrepreneurship, flexibility, and self-management as viable elements for an occupation marked by precariousness. Two seemingly disconnected situations, which provide examples of the dimension of educational policy embedded in work practices, can be observed in the didactic proposals of the Inova Education Program (GOULART and ALENCAR, p. 35).

Analyzing the potential impacts of the BNCC on the pedagogical and curricular proposals of rural schools, Lima (2021, p. 2) assesses that:

> In this context, we closely monitor with concern the actions of state and municipal education departments regarding the implementation of the National Common Curricular Base (BNCC), especially in rural schools, without a critical assessment of the drawbacks that this curricular policy may bring to the formation of thousands of children and young people for whom public schools serve as one of the main sources of cultural, political, social, and scientific education." (LIMA, 2021, p. 2).

The author further emphasizes that:

> In the face of this context, educators and social movements need to understand that what is at stake is the continuity of an education project committed to social transformation, built from the struggles of social movements through the efforts of various individuals and organizations that dared to conceive a pedagogy that could counter the traditional and authoritarian model of education." (LIMA, 2021, p. 3).

The author concludes that Rural Education must establish "educational practices that foster the production of knowledge in the service of the emancipation of the working class and the overcoming of this model of exclusionary, unjust, and unequal development propagated in rural areas by the political and ideological forces of agribusiness" (LIMA, 2021, p. 6). Additionally, it can contribute "to the construction of another model of sociability, based on family farming, associativism, and cooperation among peasants" (LIMA, 2021, p. 8)).

Lima (2021, p. 8) also argues that the pedagogical proposals of rural schools should be organized into "two basic training nuclei." The first is associated with the appropriation of "knowledge linked to different scientific areas that provide young people from rural areas with a broad and complex understanding of the reality of the countryside, permeated by contradictions and games of political and economic interests." The second aims to provide

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"technical and technological training that seeks the mobilization of knowledge associated with the processes of technology production related to the world of work and development alternatives linked to the principles of sustainability".

Analyzing the performance of teachers trained in Rural Education degree programs, Anjos and Cordeiro (2021, p. 17) draw attention to the fact that "there is a need for not only scientific-academic instrumentation for emancipatory practices to expand in rural schools, but also political instrumentation" in order to carve out a space in the curriculum, management, planning, evaluation, and other educational dimensions decided and shaped by non-hegemonic groups. They also highlight the initiative of these teachers who implement more rigorous adaptations to curricular proposals, with "materials and pedagogical activities that align with the Rural Education proposal".

The materialization of schools that promote rural education encounters challenges in the public education policies formulated at all levels of government. In recent years, these policies have been conceived and implemented based on a neoliberal approach, in which education is viewed as a managerial process aimed at achieving goals. The tightly standardized curriculum content further distances education committed to the transformation of social reality, which is the central proposal of rural education.

Specifically, regarding the curriculum of schools in the State of São Paulo, the subjects in the Inova program can have their curriculum adapted to the reality of rural areas. The subjects of Technology, Life Project, and Electives can be structured based on the concepts of Permaculture, which could also be discussed in other curriculum components. This would be a movement that should arise from the ground of rural schools.

1.2 Rural Schools in the Mirante do Paranapanema Teaching Board Region

The Teaching Directorate of the Mirante do Paranapanema Region (DERMP) manages, within its jurisdiction, state, municipal, and private schools in the municipalities of Mirante do Paranapanema, Estrela do Norte, Sandovalina, Euclides da Cunha Paulista, Rosana, and Narandiba. All these municipalities are located within the region known as Pontal do Paranapanema.

The DERMP has a peculiar characteristic compared to the other ninety (90) Teaching Directorates in the State of São Paulo: the high percentage of schools in land reform settlements. It has jurisdiction over twenty-nine (29) state schools in the municipalities it covers, of which eleven (11) schools (Table 1) are in land reform settlements, serving students from the Initial Years of Elementary Education, Final Years, and High School.

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Table 1- Rural schools under the jurisdiction of the Teaching Directorate of the Mirante do Paranapanema Region.

County	11 Rural school unit
Mirante do Paranapanema	E.E. Assentamento Santa Clara
	E.E. Fazenda São Bento
Teodoro Sampaio	E.E. Antonia Binato Silva – "Vó Nina"
	E.E. Assentamento Santa Zélia
	E.E. Professor Francisco Ferreira de Souza
	E.E. Professora Romilda Lázara Pillon dos Santos
Euclides da Cunha Paulista	E.E. Professora Lídia Sanae Oya
	E.E. Bairro Santa Rita do Pontal
	E.E. Professora Maria Antônia Zangarini Ferreira
Rosana	E.E. Gleba XV de Novembro
	E.E. Ribeirinhos

Source: Teaching Directorate of the Mirante do Paranapanema Region. Organized by the author.

The State of São Paulo has guidelines for rural education that, according to the law, should be implemented in these schools. In 2016, Law No. 16,279, the State Education Plan of São Paulo, was enacted, establishing the guidelines, goals, and strategies to be achieved over a period of ten years. Studying the text allows us to understand what was planned for rural education in the state. In Article 6, paragraph three, the legislator's attention is drawn to the need to ensure appropriate education tailored to the unique characteristics of the territories in which the students are located:

> § 3º - There will be a specific collaborative regime for the implementation of school education modalities that need to consider ethnic-educational territories and the use of strategies that consider the sociocultural and linguistic specificities of each involved community, ensuring prior consultation and information (SÃO PAULO, 2016).

A Resolution of the State Department of Education (SEDUC) No. 108, dated October 28, 2021, which establishes the curricular organization guidelines for Elementary and High School for the Teaching Modalities of the State Network of São Paulo, establishes in its article 1 that the teaching modalities comprise:

> I. Indigenous School Education;
> II. Rural School Education (Quilombola, Traditional Communities, and Settlement Areas)
> III. Youth and Adult Education;
> IV. Education in Prisons Program;
> V. Revitalizing the School Trajectory Project, offered in the Internment Centers of the CASA Foundation (SÃO PAULO, 2021).

The State Education Plan establishes twenty-one (21) goals, along with the respective strategies to achieve them. An example of the guidelines related to rural schools appears in goal seven (7) and its strategies are outlined in table 2.

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Table 2 – Excerpt from the State Education Plan of São Paulo - Law No. 16,279/2016

Goals	Specific strategy for rural schools
Goals 7 – Enhance the quality of basic education at all levels and modalities, improving school progression and learning to achieve the following averages for the Basic Education Development Index – IDEB in the State:	7.30. Strengthen school education in rural areas for traditional, itinerant, indigenous, and quilombola communities, respecting the synergy between school and community environments, and ensuring sustainable development and cultural identity preservation.... 7.31. Develop specific curricula and pedagogical proposals for rural and indigenous and quilombola school education, including cultural content corresponding to their communities, considering the strengthening of sociocultural practices [...] produce and provide specific teaching materials, including for students with disabilities.

Source: São Paulo, 2016

The intense struggle of the Landless Rural Worker's Movement (MST) for land reform in the vacant lands of Pontal do Paranapanema led to the implementation of various settlement projects in the 1990s and 2000s, resulting in a consequent increase in the rural population. This, coupled with popular pressure mobilized by the MST for the right to education, forced the state government to build new schools and upgrade the precarious facilities of those already existing in the landless encampments. Due to these actions in DERMP, strategies 1.14 and 2.11 were fulfilled.

However, the remaining strategies related to the production of specific teaching resources, the development of curricula, and specific pedagogical proposals for rural education, respecting the connection between school and community environments and ensuring sustainable development and preservation of cultural identity; community participation in defining the model of pedagogical organization and management of institutions; fostering continuous education for education professionals, especially for specialized educational services; and the production and provision of specific teaching materials were not implemented by the public authorities. Rural schools follow the official curriculum of the state of São Paulo, disregarding all their peculiarities. It can be stated that these educational units are schools in rural areas and do not fall under the category of rural education schools.

The neglect of educational modalities continues to become increasingly evident with each government. This statement can be verified in the Strategic Plan 2019-2022 elaborated by the State Department of Education of São Paulo - SEDUC. In it, the characteristics of the state's public education system, challenges, and the goal of "delivering to the people of São Paulo education for the 21st century with excellence and equity" are described (SÃO PAULO, 2019, p. 15). However, in the forty-one (41) pages, at no point are any of the educational modalities mentioned. By establishing "four strategic objectives for the quadrennium 2019-2022: - lead Basic Education Development Index (IDEB) 2021; - educate students for the 21st century; - professionalize people management; and - increase operational efficiency with improvement in the quality of public spending" (p. 18), the current public policy of SEDUC blends technicism and almost business-like management of education as the pillars of teaching in the State of São Paulo, disregarding existing socio-territorial peculiarities.

Despite Rural Education being a reality in various schools throughout Brazil, and the state of São Paulo having laws and resolutions that regulate the matter, in the Pontal do Paranapanema region, there is no school with this concept and practice. This situation is not

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different in other education directorates of the state. The curricular standardization imposed by the State Government of São Paulo, the lack of awareness among teachers, educational managers, and rural society regarding their strength in achieving educational policies that meet their peculiar characteristics are obstacles to changing this reality.

Regarding the characteristics of the curriculum for rural schools, Silva and Silva (2012, p. 329) make the following observation:

> [...] We are convinced that considering the specificities of rural people does not mean losing sight of the universal dimensions of the curriculum. In other words, it is essential to guarantee the identities and singularities of this specific reality, but also access to science, technology, and knowledge considered classic and erudite, avoiding binary repetitions between rural and urban areas that mark the historical trajectory of these two social spaces (SILVA; SILVA, 2012, p. 329).

In addition to the development of specially formulated curricula, there is a need for a change in the conception of the Pedagogical Political Projects of rural school units, as well as the training and continuous education of teachers working in these schools to embrace this educational concept. On the other hand, the rural community will have to start demanding that public officials fulfill the educational plans for rural schools outlined in legislation.

Therefore, the objective of this project is to discuss the possibility of using permaculture and its related elements—agroecology, bioconstruction of places, and social technologies—in the curriculum of rural schools for a better philosophical and practical alignment with the specific context of this audience.

2 A PERMACULTURE AS A POSSIBLE CONTENT IN RURAL EDUCATION

2.1 Concepts

Permaculture emerged from the intense mobilization around environmental issues that developed in the 1960s and 1970s. Like Agroecology, Organic Agriculture, Natural Agriculture, Biodynamic Agriculture, and Biological Agriculture, for example, Permaculture has, as its "initial focus of criticism, conventional agriculture, with proposals and actions created in response to the so-called Green Revolution" (RIBEIRO et al., 2017). Its conceptual foundations were proposed in the academic work of David Holmgrem, guided by Bill Mollinson, in Australia. This term was created by contracting the terms "agriculture" and "permanent" (permanent agriculture). Initially, they proposed the establishment of a sustainable system of perennial food production. According to Bill Mollison (1991, p. 22), Permaculture is a system that allows for our sustainable existence on Earth: "Permaculture is based on the observation of natural systems, the wisdom contained in traditional productive systems, and modern scientific and technological knowledge".

The concepts of Permaculture have spread and incorporated new elements. Currently, Permaculture encompasses all areas related to a human settlement, with the aim of creating a sustainable culture, promoting the harmonious and balanced continuity of our species on the planet over time.

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> This implies that among the methods of permaculture land design and occupation, knowledge from various areas of human knowledge is embedded, ranging from architecture and engineering to biochemistry, encompassing agricultural and biological sciences. All of this is grounded in an ecological perspective that objectively utilizes the empirical knowledge of traditional communities in the specific context where it is applied, while also incorporating a regionalist aspect in the intervention. (JACINTHO, 2007, p. 39).

Bill Mollison (1991, p. 108-109) stated in the book "Introduction to Permaculture" that it is "based on the observation of natural systems, the wisdom contained in traditional productive systems, and modern scientific and technological knowledge." He also emphasizes the need for "groups of people or nations to apply this concept in practice as a way to change the relationship between humans and the environment.".

Okimoto (2021, p. 238) presents twelve concepts aligned with permaculture that can generate public policies: "Social Technologies; Urban Agroecology and Food Sovereignty; Civil Bioconstruction; Self-Management; Placemarking; Seed Bank; Green and Blue Infrastructures; Participatory Management; Sustainable Urbanism; Pancs and C.S.A.; Zero Waste, Zero Energy; Cooperativism, Collaborativism, and Solidarity." Although these concepts have been applied in an urban context, they can also be applied in rural areas. For example, we can mention Social Technologies, which, according to the author, "promote and sustain the creation and development of strong communities in themselves and before the local government" (OKIMOTO, 2021 p. 248).

In 2002, David Holmgren graphically systematized the Permaculture Flower with its various areas of action. It includes seven different domains necessary to create a sustainable culture:

> • Land and Nature Management: biointensive gardening, forest gardening, seed bank, organic farming, biodynamic farming, natural planting, keyline water harvesting, holistic range management, natural sequence planting, agroforestry, nature-based forestry, integrated aquaculture, wild harvesting, gathering.
> • Built Environment: passive solar planning, construction with natural materials, water collection and reuse, bioarchitecture, earth-sheltered construction, disaster-resistant constructions, owner-built construction, pattern language.
> • Tools and Technology: creative reuse and recycling, manual tools, bicycles and electric bicycles, efficient and low-pollution wood stoves, organic waste fuels, wood gasification, reforestation biomass carbonization (biochar), co-generation and micro hydroelectric power plants (MCH), small-scale wind, renewable energy electric fence, energy storage, transition engineering.
> • Health and Spiritual Well-being: home birth and breastfeeding, complementary and holistic medicine, yoga, tai chi, capoeira, and other mind/body/spirit disciplines, spirit of place, indigenous cultural rebirth, dignified death.
> • Economy and Finance: local and regional currency, carpool lanes, carpooling and ridesharing, ethical investment, fair trade, WWOOFing and similar networks, farmers' markets and community-supported agriculture (CSA), tradable energy quotas, life cycle analysis, and energy accounting.
> • Land Ownership and Community: cooperatives and community associations, eco-villages and co-housing, technology for open space and consensus decision-making, native title, and traditional right of use.

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> • Culture and Education: homeschooling, Waldorf education, participatory art and music, ecology, action research, and transition culture. (HOLMGREN, 2002, p.30).

Examining the lengthy path that society must traverse to consolidate a new form of spatial organization that does not compromise the environment and future generations, Fagundes (2022, p. 64) draws attention to the situation of "the majority of rural communities, where access to information and social, economic, and political exclusion are determinants of the status quo". He asserts that:

> The work carried out on the theme of Permaculture follows these ideas of social transformation, forged by human praxis in the construction of a society without walls or fences and with broad access for everyone. However, the difficulties faced by society are enormous. Even with evidence of contemporary environmental imbalances, human greed for natural resources seems limitless. Social practices emerge in this scenario as lights at the end of the tunnel. However, any transformation is only possible if we build new social and environmental relationships that can give us energy on this journey (FAGUNDES, 2022, p. 64).

The author further emphasizes that "it is time for us to tread another path," in this sense, "nourishing consciousness through education committed to the socialization of knowledge for the construction of socially and ecologically sustainable human settlements".

The population residing in rural areas has a close relationship with the land and natural resources; therefore, they should have access to knowledge in agroecology and training to apply it. Thus, according to Okimoto (2021, p. 249), they will develop their agricultural activities based on respect for the processes.

> [...] natural processes of cultivated species from seeds, respecting the involved hydrological cycles, ecosystems at macro and micro levels, considering soil as a habitat rather than just a substrate, respecting and promoting interactions with other natural agents involved, such as bees, and regulating atmospheric emissions (Okimoto, 2021, p. 249).

The adoption of construction technologies with lower environmental impact should also be taught and encouraged. In this regard, Okimoto (2021, p. 249) states that "in the past, bioconstructions were more strongly related to construction technologies that used natural materials and artisanal techniques," and that, currently, "it is reasonable to think that bioconstructions can be any technologies concerned and proactive towards environmental, economic, and social sustainability".

2.2 Application of Permaculture in the School Curriculum

The development of a specific school curriculum, tailored to Rural Schools, that allows students to receive technical and technological training and promotes empowerment, emancipation, and appreciation of the cultural and social knowledge of their territories is of utmost importance. Pina (2010, p. 60) emphasizes that "the school teaching policy for young settlers should be focused on rural activities, with sustainable practices, as an essential element

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for these young people to envision the valorization of the rural environment in which they live".

Another desirable effect is to ensure the permanence of these young people in rural areas, by teaching them about the possibilities of quality of life, fair and efficient workload, entrepreneurship, and income that the countryside can offer. This is one of the roles that the school curriculum must provide to these students. The education offered in the eleven rural schools of the Directorate of Education of the Region of Mirante do Paranapanema is based solely on the Paulista Curriculum, with no movement towards adapting to the rural reality.

In characterizing the youth of the Ribeirão Bonito settlement, in the municipality of Teodoro Sampaio - SP, who study at EE Francisco Ferreira de Souza, seeking to understand their life perspectives, Pina (2010, p. 60) apprehended that:

> The presence of a high school in the settlement "facilitates" these young people in achieving such an objective. On the other hand, the pursuit of education, although positive from a general point of view, can hinder the succession of plots in the settlement because most young people seek non-agricultural professions, supported by parents who feel insecure about the farmer's profession. This trend indicates the need for differentiated schooling within settlements so that the school also contributes to the training and encouragement of rural activities (PINA, 2010, p. 60).

This reality can be changed provided that rural communities and education professionals recognize the drawbacks of the absence of educational policies for the rural population in the students' formation. These stakeholders need to organize actions to pressure the government to implement an educational policy specifically focused on rural schools, including the construction of a curriculum suitable for this target audience.

The incorporation of permaculture principles in rural schools is an element that could be taken into consideration in these collective discussions. The seven domains of sustainable culture: Land and Nature Management; Built Environment; Tools and Technology; Health and Spiritual Well-being; Economy and Finances; Land Ownership and Community; Culture and Education, which are the fundamental bases of permaculture, can serve as the structuring axis of the Pedagogical Political Projects of these school units.

Those who inhabit rural areas have a variety of possibilities that city dwellers do not possess. The possibilities include the use of unconventional construction techniques and materials for housing and equipment, using natural resources produced on the property, such as wood from planted trees, soil-cement ecological bricks, bamboo, etc. The slower pace of life in rural areas and the closer ties that families establish with each other enable partnership relationships and the exchange of daily tasks. This element facilitates collective work, the creation of associations, and cooperative efforts.

Therefore, the new curriculum will interweave traditional rural communities wisdom with technological and scientific knowledge, promoting social and economic development of rural population in a sustainable way. Each Rural School will be able to organize their own schedules, spaces, pedagogical practices, and management based on the goal of teaching how to plan and create sustainable and productive environments in harmony with nature.

As emphasized by Rosa et al., (2018, p. 5)

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> Combining age-old knowledge with modern scientific discoveries, permaculture also emerges as a promoter of integrated sustainable development on rural properties, in a viable and secure manner for family farmers (ROSA et al., 2018, p. 5).

By learning and mastering permaculture techniques, children and young people, especially those living in rural areas, become capable of implementing them in activities carried out within their plots. Furthermore, socio-environmental issues are addressed and understood from the perspective of the "triad: caring for the land, caring for people, and caring for the future" (UFSC, 2022).

All this knowledge can also be used in the spatial organization of agricultural activities within rural properties through permaculture activity zoning, which defines the areas for implementing each activity. Okimoto (2021, p. 243) states that "many rural settlements do not have this disposition implemented and suffer from waste and rework". He concludes that if they followed such a model, they would likely need "smaller areas to accomplish the same work or carry out more efficient and impactful work with the same area".

3 FINAL CONSIDERATIONS

Therefore, the educational curriculum policies established at the national level, through the BNCC (National Common Core Curriculum) and at the state level defined by the Currículo Paulista (São Paulo Curriculum), were conceived based on the premise of the endogenous privatization of public education and a closer approach to political-pedagogical assumptions aimed at training for precarious work practices (GOULART; ALENCAR, 2021).

The goals and strategies outlined by the State of São Paulo for rural schools, as described in the State Education Plan of São Paulo (Law No. 16,279/2016), have, for the most part, been ignored and not implemented. The situation worsens with the implementation of the National Common Core Curriculum (BNCC) and the new São Paulo Curriculum, which disregards the guidelines for the rural education modality established by the National Program for Rural Education (PRONACAMPO) on March 20, 2012. PRONACAMPO governs specific actions to support Rural Education and quilombola education.

The Directorate of Education in the Mirante do Paranapanema Region has eleven (11) rural schools, located in agrarian reform rural settlements. The education offered in these schools is solely based on the São Paulo Curriculum, without any adaptation to the community's reality. This allows the assertion that these educational establishments are schools in the rural areas. Therefore, there is a need to implement rural education guidelines to reorganize the function of these schools according to the characteristics of their communities. Schools in rural areas should teach the possibilities of quality of life, fair workload, entrepreneurship, and income that the rural areas can offer, ensuring the permanence of these young people in rural areas, as well as the unveiling of the consequences of technological, social, and environmental transformations.

Due to being a socio-environmental science for planning self-sustainable human settlements that seeks harmony between dynamic and renewable relationships through the integration of scientific knowledge with traditional wisdom, the precepts, principles, and

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methodology of permaculture can be implemented in the development of the rural school curriculum. The population in settlements directly deals with natural resources in their daily lives, considering them as an important source of income and quality of life. They face the contradiction of following a production model based on agribusiness techniques that increases costs and makes small family production economically less profitable. What is proposed here is, through permaculture, to provide these people with access to new concepts of environmental relationships, balancing the use of natural resources, caring for their depletion, and generating decent income. In this sense, change will only occur when rural individuals can acquire knowledge about these elements and have access to concepts on how to reposition themselves in this game of forces and interests. This is where school education should contribute, as rural schools are the most important places within agrarian reform settlements where knowledge is disseminated.

The paradigm shifts in the rural schools of the Regional Education Directorate of Mirante do Paranapanema, advocated here, depends on several factors. The main factors involve rural communities and education professionals working in these schools recognizing the harm caused by the lack of educational policies for the rural population in shaping their students. They need access to permaculture training to envision its transformative potential for society. From there, they can organize actions to demand from public officials' educational policies specifically tailored to rural schools, including the development of curricula suitable for this target audience.

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