

Public policy on organic school meals in Paraná: law implementation, agricultural production landscape, and communicational aspects

Política pública de alimentação escolar orgânica no Paraná: implementação da lei, cenário de produção agrícola e aspectos comunicacionais

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ABSTRACT: Providing organic or agroecological school meals in public school units throughout the state, progressively until all schools are included, is the goal of Paraná State Law No. 16.751/2010. This public policy, aligning with the principles of agroecology and the United Nations' Sustainable Development Goals (SDGs), calls for close examination of its implementation, including contextual and communicational aspects. In this article, we adopt the premise that the factors motivating the implementation of this public school meal policy have not been effectively communicated to society and that nonconventional food production in the state needs to be encouraged and supported. Communication is understood here as a management tool aimed at raising social consciousness and awareness, serving a public dissemination role regarding the socio-environmental and nutritional motivations behind this policy. To understand the implementation processes and the information and communication aspects for the school community and society regarding the reasons for adopting organic school meals in Paraná, a qualitative study was conducted with representatives from three social groups (school agents, government representatives, and family farmers). Data collection involved questionnaires and interviews, and the analysis revealed that, as of the current stage of implementation in 2023, communication management strategies have not been effectively applied to inform and integrate society with the policy's objectives.

Keywords: environment and society; public policy; organic school meals; State Law 16.751/2010; communication processes.

RESUMO: Ofertar alimentação escolar orgânica ou agroecológica nas unidades escolares da rede pública estadual de ensino, de forma progressiva, até que todas sejam contempladas, é o propósito da Lei no. 16.751/2010, do Estado do Paraná. Tal política pública, ao dialogar com os princípios da agroecologia e com os Objetivos de Desenvolvimento Sustentável (ODS), defendidos pela ONU, instiga a observação atenta sobre aspectos de sua implementação, incluindo aspectos contextuais e comunicacionais. Neste artigo, adotamos a *premissa* de que os fatores que motivaram a efetivação dessa política pública de alimentação escolar não vêm sendo comunicados à sociedade e que a produção não convencional de alimentos no estado precisa ser incentivada e apoiada. A comunicação é compreendida aqui como instrumento de gestão voltada para a sensibilização e conscientização social, com papel de divulgação e utilidade pública acerca das motivações socioambientais e nutricionais que conceberam tal política. Assim, com o objetivo de compreender os processos de implementação e os aspectos de informação e comunicação à comunidade escolar e à sociedade no que diz respeito às razões da adoção da alimentação escolar orgânica no estado do Paraná, realizou-se uma pesquisa qualitativa com a participação de alguns representantes de três grupos sociais (agentes escolares, representantes governamentais e agricultores familiares). A coleta de dados envolveu a aplicação de questionários e a realização de entrevistas, e sua análise permitiu afirmar, a partir do estágio atual (2023) de implementação da lei em exame, que estratégias de gestão de comunicação não foram aplicadas, de forma a informar e integrar a sociedade aos seus propósitos.

Palavras-chave: meio ambiente e sociedade; políticas públicas; alimentação escolar orgânica; Lei estadual 16.751/2010; processos comunicacionais.

1. Introduction

State Law No. 16,751/2010, which implements the public policy of organic school meals in Paraná (Ppaeop) within the state education system, has been in effect since it was regulated by Decree No. 4,211/2020. The law outlines the state's intention to gradually incorporate organic food into school meals across 2,117 state schools. According to the Paraná School Census (SEED, 2023), these schools had a combined enrollment of 1,036,855 students, 50,185 state-employed teachers, 3,000 cooks, and around 20,000 teachers hired through the Simplified Selection Process - PPS (SEED, 2022) between 2020 and 2021.

In Paraná, organic¹ or agroecological² food production currently involves 3,916 family farming families (AEN, 2022). These families are already

certified as organic producers and are qualified to supply food to the National School Feeding Program (PNAE). Organic products are paid 30% more than conventional ones.

When it comes to agricultural production, the data indicates that the number of organic producers remains insufficient to meet the demand generated by the law. Although the state guarantees the purchase of all organic produce through PNAE, this accounts for only 7.9% of the minimum quantity required by the national program, which mandates that 30% of all school meals must be sourced directly from Family Farming (AF).

Other contextual factors are also noteworthy, such as the fact that State Law No. 16,751/2010 was only regulated a decade after its approval, despite the efforts of the network that supports this public policy, particularly through the advocacy of social

¹ As Caporal (2008) defines it, it is the production of food without the use of pesticides.

² The production of diversified food based on the tripod of sustainability: environmental preservation (without the use of pesticides), social fairness, and economic fairness (Caporal, 2008).

movements—most notably the leadership and representation of rural subjects³ involved in AF. In this context, we believe that analyzing the figures related to the production and purchase of organic and agroecological food after the law was enacted, along with noting the absence or scarcity of communication about it, may suggest a potential resistance on the part of the state to fully implementing the law.

Given these considerations, a central research question emerged: how do the processes of information and communication within the school community and broader society address the reasons for adopting organic school meals in the state of Paraná? It's important to note that understanding and discussion of this measure should occur through strategic management communication, including the relationship between this public policy and the PNAE, as well as the state's role in ensuring its viability and strengthening.

In response to this research question, this text outlines the scenario of organic food production in Paraná, addressing issues related to agroecology and family farming. It also characterizes the process of implementing the law under study and examines the possible existence of a public communication process regarding the law (Brandão, 2009). This work represents an effort to synthesize an interdisciplinary research project conducted by the Postgraduate Program in Agroecology and Sustainable Development at the Federal University of the Southern Border⁴.

³ According to Naiff *et al.* (2009), rural subjects, as social actors in the mediation of agrarian conflicts, often become a nuisance to those who advocate for a "modern" rurality, which is rooted in "the search for forms of resistance within class entities that do not operate within the mercantile logic."

⁴ The research adhered to Resolution 196/96 of the National Health Council and was approved by the Research Ethics Committee of the Federal University of the Southern Border in 2022, under protocol number 5.376.735.

⁵ According to Silveira (2016), the term "agroecological footprint" refers to the social legacies and contributions to the personal and professional development of participants involved in agroecological initiatives.

The law under study has the potential, as a public policy intersecting the fields of education, nutrition, agricultural production, and communication, among others, to serve as a record of the agroecological footprints⁵, generated by various practices and actions. These practices and actions should be conveyed through effective public communication, in order to recognize and encourage the communities involved in the initiatives outlined in the legislation, aligning with the Sustainable Development Goals (SDGs) (ONU, 2015).

From the perspective of implementing agroecology, it is important to recognize the role of all social actors involved in the process, as agroecology "is a popular construction that emerged from the alliance between peasant and indigenous sectors and technicians from various fields—ecologists, agronomists, sociologists, anthropologists, among others" (Guzmán, 2015, p. 354). Caporal (2008, p. 4) adds that this model of agriculture is grounded in the principles of "managing natural resources, expanding social inclusion, reducing environmental damage, and strengthening food and nutritional security by providing healthy, quality food for all Brazilians." Additionally, while organic food production has some differences from agroecological food production, it is considered part of agroecological processes (Caporal, 2008; Guzmán, 2015).

Thus, in alignment with the aforementioned interdisciplinary perspective, we engaged with the various fields of knowledge involved in the creation

and implementation of this public policy. Theoretical foundations from the agroecological perspective and the realm of public policies, including socio-environmental, communication, and methodological aspects, were primarily informed by the works of Boas (2004), Massardier (2006), Costa (2006), Minayo (2007), Caporal (2008), Brandão (2009), Bardin (2011), Wolton (2011), Guzmán (2015), and Cox and Pezzullo (2018).

As detailed in the following section, the research was based on the perceptions of representatives from specific groups involved in the process regarding the law under examination, its implementation, and communication about its application. Both the responses obtained through questionnaires and the recorded and transcribed interviews—instrumental procedures employed—utilized a qualitative methodological approach, considering various aspects of Content Analysis (Bardin, 2011).

2. Methodological paths and concepts

As part of the qualitative approach mentioned, the research adopted a comprehensive perspective, based on Minayo (2007). From this viewpoint, the topic was reviewed, researched, and analyzed with a focus on understanding a “set of human phenomena generated socially to comprehend and interpret reality” (Minayo, 2007, p. 8), rather than emphasizing quantification and explanations.

The interpretative analysis (described at the end of this section) was conducted on the content collected through questionnaires and interviews, involving a total of 13 participants. Group A included nine educational agents (one from each role) from three state schools in municipalities identified

as agroecological by the National Agroecology Articulation (ANA, 2022), who completed the questionnaire. Group B comprised four representatives from government sectors with significant influence on the Ppaeop, including a representative of food producers who is a member of the law's Management Committee. All four were interviewed.

The use of two different data collection instruments, one for each group of participants, considered factors such as the availability of group members to contribute to the research and the guidance from the Federal University of the Southern Border (UFFS) during the COVID-19 pandemic. This guidance recommended using electronic media in places with larger gatherings, such as schools. Therefore, we opted for questionnaires sent by email. However, face-to-face interviews with government agents were possible, which facilitated the process of interpreting the content based on interpretative analysis (Bardin, 2011).

2.1. Group A - Educational agents: teachers, cooks and principals

For the selection stage of the schools included in the research, data from the report “Agroecology in the Municipalities” by the National Agroecology Articulation (ANA, 2022) were used as a basis. This document identifies Brazilian municipalities recognized as agroecological, primarily due to their municipal public policies promoting sustainable production models, as well as the presence of organized agroecological nuclei, such as Municipal Councils for Food and Nutritional Security, among other initiatives and actions aimed at environmental, social, and economic sustainability.

Initially, 12 state schools from 12 municipalities in different regions of Paraná were selected: Cascavel and Palotina in the west region; Palmeira in Campos Gerais region; Guarapuava and Foz do Jordão in the center-south region; Umuarama and Maringá in the northwest region; Pato Branco in the southwest region; Agudos do Sul and Campo Largo in the southern Metropolitan region of Curitiba; and Jundiaí do Sul and Cruzeiro do Sul in the northeast region.

The questionnaires were sent by email following telephone contact and confirmation of the schools' interest in participating in the survey. However, most schools declined to participate, citing the increased workload on educational agents due to the return to school activities after the COVID-19 pandemic. Consequently, three schools agreed to take part, with nine respondents completing the questionnaires—three from each of the selected positions (principals, teachers, and cooks) at each school. The questionnaire for the teachers and principals included five open-ended and semi-structured questions designed to assess their awareness of the Ppaeop, their perception of whether organic school meals were being offered, the benefits they perceived from the new law, their views on the differences between food produced with and without pesticides, and whether the issue had been communicated and discussed at the school, and if so, in what contexts and at what times.

An additional five questions were posed to the cooks to determine if there were differences in the preparation of conventional versus organic/agroecological foods, any challenges or specific considerations in the storage and preservation of these foods, perceived advantages or disadvantages between the types of food according to the produc-

tion model, how organic/agroecological foods were received by the students and whether they noticed any differences when consuming them, and how they perceived the arrival of organic and agroecological foods in school meals.

2.2. Group B: representatives of the institutions involved in creating and implementing the law

All interviews with Group B were conducted face-to-face. The four institutional representatives were not only aware about the Ppaeop but were also actively involved in its implementation. Consequently, a script of open-ended questions was used with this group to interpret their views on whether they consider the law to be strategic—specifically, if it can enhance school feeding and support family farmers. The questions aimed to understand the current status and conditions of its implementation, identify priorities for communicating the content of the law, and explore what is planned to ensure the law achieves its intended effects.

The actors in Group B include representatives from Fundepar (the agency responsible for purchasing and the quality of school meals in the state of Paraná), the Legislative Assembly of Paraná (the body responsible for creating state laws, through which Ppaeop was proposed and processed), the State Public Prosecutor's Office (MP) (which represents civil society and was appealed to by the organic food production sector to regulate the legislation), and Family Farming, which is part of the Management Committee for this public policy, representing the Council for Rural Development and Family Farming of Paraná (Cedraf). It is important

to note that the Management Committee is composed of representatives from various government sectors and civil society, overseeing and making decisions on the implementation of Ppaeop within the framework of public policies on organic/agro-ecological production and the acquisition and distribution of these products by the state government.

Tables 1 and 2 describe the participating groups and provide the data collection periods.

After transcribing the responses from the questionnaires and interviews, a raw file containing all the collected content was obtained. The pre-analysis began with a floating reading (Bardin, 2011) of this content, which allowed for the identification of analytical categories relevant to the topic based on the main questions posed in the questionnaires and interviews. These categories, emerging from

the floating reading, also align with the objectives set by the research, namely:

i) Analytical Category 1: Difficulties and goals in implementing the law requiring the inclusion of organic products in food in Paraná state schools (Group A and B).

ii) Analytical Category 2: Existing communication processes and suggestions for desirable forms of communication in the implementation of the public policy under study.

According to Bardin (2011), the interpretative analysis was conducted on the selected textual excerpts corresponding to the categories of interest to meet the research objectives. This procedure allowed for an understanding of the progress and challenges in implementing the law, based on the

TABLE 1 - Group A respondents to the school questionnaire.

Respondents	Function	Period	Year
A1	Teacher	July to November	2022
A2	Teacher	July to November	2022
A3	Teacher	July to November	2022
A4	Cook	July to November	2022
A5	Cook	July to November	2022
A6	Cook	July to November	2022
A7	Principal	July to November	2022
A8	Principal	July to November	2022
A9	Principal	July to November	2022

SOURCE: Andrade (2023).

TABLE 2 - Government and Family Farming representatives interviewed.

Interviewees	Represented body	Period	Year
B1	Fundepar	July to November	2022
B2	Legislative Assembly of Paraná	July to November	2022
B3	Paraná Public Prosecutor's Office	July to November	2022
B4	Council for Rural Development and Family Farming of Paraná (Cedraf)	July to November	2022

SOURCE: Andrade (2023).

interdisciplinary perspectives of the participants, the practices carried out, and the ways these practices are communicated to society as a right of access towards information of public interest.

3. Public policy on organic school meals in Paraná and its context of creation and implementation

This document, which includes aspects of literature reviews based on various authors and data on the situation regarding the production and purchase of organic food in Paraná for school meals, presents information gathered from the Group B interviews. In this way, we aim to "stitch together" theoretical contributions and the empirical landscape.

We align with Boas (2004, p. 45) when he states that "to understand history, we need to know not only how things are, but how they came to be." Therefore, to analyze the public organic school feeding policy in Paraná (Ppaeop) and its effects, this

discussion revisits some national and state public policies that precede and support it. For example, the National School Feeding Program (PNAE), established in 1979, initially operated in a centralized manner until 1993, after which it began to allocate funds directly to schools, starting in 1994. However, the concentration of PNAE resource management in a single administrative body remains the most common practice among states and municipalities.

In Brazil, School Feeding Councils (CAE)⁶ were established in 2000. In 2006, the same year the National Food and Nutrition Security System (Sisan) was created to ensure the human right to adequate food, the PNAE began to include nutritionists as technical managers in the various states. In 2009, Law No. 11,947 mandated that at least 30% of the funds allocated for school meals be spent on direct purchases from family farmers.

The PNAE⁷ is the first permanent school feeding policy implemented in Brazil and is recognized by the Food and Agriculture Organization (FAO)

⁶ Since 2000, School Feeding Councils (CAE) have been established and implemented across Brazilian states, the Federal District, and municipalities. These are collegiate bodies with permanent, deliberative, and advisory roles in managing funds from the Federal Government, allocated through the National Fund for the Development of Education (FNDE) for the National School Feeding Program (PNAE).

as the largest school feeding program in the world (ASBRAN, 2017). The PNAE originated from the School Meals program of 1955 and was based on the study “*The Geography of Hunger*” by immunologist and nutritionist Josué de Castro (ASBRAN, 2017).

Currently, the PNAE is funded through contributions from companies that pay a tax on hiring salaried workers. This tax is allocated to the Salário Educação (Education Salary) fund, with 10% of the collected amount going to the National Education Development Fund (FNDE) for administrative expenses. The remaining 90% is divided into two-thirds for states and municipalities exclusively for the purchase of school meals, and one-third for various programs benefiting states and municipalities (FUNDEPAR, 2022)⁸.

Another piece of legislation preceding Ppaeop is Federal Law No. 10.831/2003, which regulates organic production in Brazil and was introduced while adjustments were being made to the PNAE. This law defines organic production models as those employing specific techniques that optimize natural and socio-economic resources while respecting the cultural integrity of rural communities. The goal is to achieve economic and ecological sustainability and maximize social benefits. Similarly, State Law 16.751/2010 understands organic food as that produced in accordance with this federal law.

3.1. PNAE contribution and rules and Ppaeop internal difficulties

The national public school feeding policy, managed by the FNDE, adheres to the principles of the Human Right to Adequate Food (DHAA) and Food and Nutrition Security (SAN). National oversight is carried out by the FNDE in collaboration with the states. The PNAE is also regulated by the State School Feeding Council (Ceae)⁹, established in 1995 by Decree 1,205. Its regulations were published 14 years later, in 2009, in response to the need to support the PNAE. The Ceae exercises social control by monitoring, advising, and inspecting the execution of the program in school units.

According to the Fundepar representative (interviewee B1), who is responsible for purchasing school meals, and the representative of the food producers (interviewee B4), Paraná invested 100% of the PNAE’s resources in 2022, amounting to R\$80 million, in direct purchases from family farming. This investment included a 30% increase in the price paid to producers for organic and agroecological products compared to conventional products.

The acquisition and inclusion of organic food in school meals, which is managed by the state, must adhere to the criteria set by the PNAE. This policy stipulates that, in addition to ensuring that the food is sourced from family farming, the purchasing process must follow a specific order of priorities: first, local production; second, production

⁷ The PNAE has been linked to the collection of the education wage since Law 4.440/1964 and to the constitutional principle of Article 212 of the Federal Constitution, as regulated by Decree 6.003/06. This is achieved through a rate of 2.5% (two integers and five thousandths) levied on companies' payrolls.

⁸ Fundepar – Paraná Institute for Educational Development. Available at: <<https://www.fundepar.pr.gov.br>>. Accessed: March 2024.

⁹ Ceae – Conselho Estadual de Alimentação Escolar. Available at: <<https://www.fundepar.pr.gov.br/Conselho-Estadual-de-Alimentacao-Escolar>>. Accessed: May 2022.

from settlements and traditional peoples; and third, organic production. According to interviewee B1, a representative of Fundepar, this prioritization means that when some way of prioritizing the purchase of organic food is encountered, it often leads to questions from the National System and from conventional food suppliers. Many of these suppliers are hesitant to transition to organic or agroecological production, as meeting the local production criterion alone suffices to secure their participation in the direct purchase program.

3.2. Context of Organic Production in Paraná and Brazil

According to interviewee B4, organic producers encounter difficulties with the implementation of Ppaeop, particularly in terms of technical assistance for production. This issue extends to the Paraná Mais Orgânico Program (Paraná More Organic Program), which is the only state policy supporting organic agriculture. As noted by the State News Agency (AEN, 2022), this program is a partnership involving the Rural Development Institute of Paraná (IDR-Paraná), linked to the State Secretariat for Agriculture and Supply, the General Superintendence of Science, Technology, and Higher Education of Paraná, the Technology Institute of Paraná (Tecpar), and state higher education institutions.

On its official website¹⁰, Paraná Mais Orgânico outlines its responsibilities: supporting the organization of family farmers for marketing their organic products and contributing to making Pa-

raná the state with the highest number of organic producers in Brazil (AEN, 2022). The program focuses on providing Technical Assistance and Rural Extension (Ater) services to promote the adoption of technological innovations in organic farming. Farmers seeking certification must first contact one of the centers of the program. There, a technician will assist with adapting the property to meet certification requirements. After this adaptation period, an audit is conducted, and if the property meets the legislation, the producer is awarded certification (AEN, 2022).

It is particularly noteworthy that the certification program does not mention the Paraná Reference Center for Agroecology (CPRA) as a partner. According to its official website, CPRA mission is “to promote and support training actions among people and organizations aimed at sustainable farming production and consumption, based on the precepts of agroecology,” and its vision is “to be a reference in guiding actions for the expansion of agroecology.”¹¹ The center’s target audience includes farmers, technicians, students, educators, consumers, and representatives of public and private organizations responsible for sustainable production and consumption. CPRA also prioritizes family farming and traditional communities from regions with lower human development indices (CPRA, 2023).

However, according to interviewee B4, the technical staff at IDR-Paraná, which oversees the Paraná Mais Orgânico centers, is insufficient to provide adequate technical assistance. The program is therefore limited to focusing on certification and offers services not only to Family Farming free of

¹⁰ <<https://www.agricultura.pr.gov.br/Pagina/Parana-Mais-Organico>>.

¹¹ Check it out at: <<https://agroecologiaemrede.org.br/organizacao/centro-paranaense-de-referencia-em-agroecologia/>>.

charge but also commercially to the private sector to expand supply, which is currently stagnant, as shown in Figure 1. It is important to note that while the private sector can afford to hire technical advisors to develop projects, thereby facilitating certification, family farmers who are eligible for free services often lack this support, making it more challenging for them to access certification under this public policy.

The regions highlighted in red on the map below (Figure 1) are the primary sources of orgânica food purchased by Fundepar to implement Law 16.751/2010.

According to Fundepar (2022), by 2022, a variable amount of organic products had been included in the school meals of 1,541 out of 2,117 schools in the state's public education network, meaning that only 72% of schools received any organic food. Faced with this scenario, the state government decided in 2023 to mainly purchase organic rice from other states, as there were no visible public policies in place to promote the expansion of local production within Paraná.

It is important to note that, according to ANA (2023), the development of public policies to support organic and agroecological production is under way in other Brazilian states. This is particularly true for Rio Grande do Sul, which is expected to supply organic rice to Paraná in alignment with the Ppaeop. However, the diversity of organic products across all food groups is not yet assured.

3.3. Groups of organic food supplied to school meals in Paraná

According to Fundepar (2022), the distribution of organic food supplied by Family Farming reveals that fruits make up a significant portion, accounting for 35% of the supply. This is followed by vegetables and tubers, which together contribute 30% (vegetables I and II combined)¹², while greens alone represent 13%, and spices make up 7.5%. Baked goods account for 7.38%, fruit juice for 7.23%, beans for 0.43%, and rice currently contributes 0%.

From 2011 to 2022, Paraná has demonstrated a progressive increase in the supply of organic food, as detailed in Table 3.

The table displays the quantity in kilograms of all products purchased from Family Farming, including the annual rate of change, the quantity of organic products, and their diversity (starting from the second year of purchase). It also shows the percentage representation of organic products relative to the total amount of products purchased from Family Farming. As of the 2022 balance sheet, the percentage of organic products in school meals within Paraná state public school system was 7.06%, falling short of the 10% target set for that year.

At this point, it can be asserted that the organic/agroecological food production sector needs additional public incentive policies to ensure its development and consolidation. Without such support, transitioning from conventional to a sustainable, pesticide-free production model aligned with the Sustainable Development Goals (SDGs) of the global agenda (UN, 2015) will not be feasible.

¹² Nutritional classification by food group.

Municipal Distribution of Organic Food Suppliers

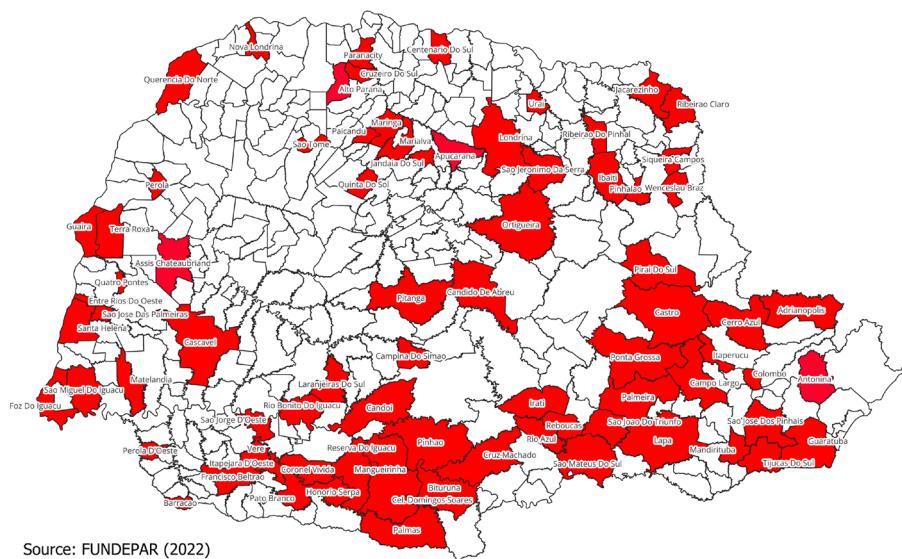


FIGURE 1 – Municipalities in Paraná with state schools served with organic food.

SOURCE: Technical Coordination of School Feeding, Fundepar (2023). Updated based on Bruginski & Stolarski (2021).

This research also aimed to explore and understand the role, leadership, and resistance of rural subjects, namely organic/agroecological food producers, within the public policy network (Massardier, 2006) concerning the creation and implementation of Ppaeop. This leadership and resistance are evident in the perspective of the legislative representative (B2), who notes that the push for the law came from social movements themselves, such as the Federation of Workers in Family Farming (Fetraf). This indicates that organized movements representing family agriculture have actively worked and continue to work to ensure the law implementation.

As Ppaeop is a path that is being taken, above all by rural subjects and their organized move-

ments that support it, the production of organic food required by the public policy calls for an understanding of the peculiarities of this type of agricultural production, including the need for appropriate technologies, as the practice of agroecology or organic farming does not mean a lack of intervention in agroecosystems, leaving everything to the “natural” (Sarandón; Flores, 2014). The interviewee representing the Rural Development and Family Farming Council of Paraná (B4) said that the Ppaeop Management Committee has been working along a number of issues, one of which is food production. In his words, *non- development of food production by families is not because they don't want to produce organic products or promote*

TABLE 3 - Trends in the purchase of organic food in school meals in the state of Paraná.

Base Year	Total Kg (Family Farming + centralized + decentralized)	Annual variation rate	Organic Kg	Monthly variation rate	% Kg
2011	12,042,569.00	-	64,997	-	0.54%
2012	19,014,600.20	58%	587,847	804%	3.09%
2013	19,838,463.68	4%	829,501	41%	4.18%
2014	27,485,853.64	39%	1,367,395	65%	4.97%
2015	22,098,218.22	-20%	1,400,781	2%	6.34%
2016	16,121,580.96	-27%	362,128	-74%	2.25%
2017	19,241,446.45	13%	951,293	163%	5.22%
2018	24,769,400.44	36%	1,999,022	110%	8.07%
2019	21,572,685.74	-13%	1,282,051	36%	5.94%
2020	21,592,022.18	0%	1,993,191	55%	9.23%
2021	19,225,411.90	-11%	2,128,464	7%	11.05%
2022	31,245,295.96	62%	2,207,236	4%	7.06%

SOURCE: Technical Coordination of School Feeding, Fundepar (2023). Updated by the coordination based on Bruginski & Stolarski (2021).

agroecology. There are a number of factors involved. Technical support is needed.

The representative of the Public Prosecutor's Office (B3) believes that there is no reason why the public policy should not receive investment and that a legal solution can be found. According to him, even the PNAE criteria identified as legal obstacles to the purchase of organic food can be revised to ensure that the benefits of this policy, which serve the public interest, are reached. In his words, *"the right to health and, from this, the right to one's own education, as well as the right to participate in the benefits produced by society."*

Despite the challenges, the implementation of Ppaeop is progressing, according to the representative of the managing agency Fundepar (B1) and the representative of family farming (B4). However, B3 (Public Prosecutor's Office) points out that the central issue lies in the lack of public policies to encourage organic/agroecological production. In turn, B4 highlights that it is the lack of awareness and incentives that leads to questioning the added value of organic products. He also notes that the amendment of Kandir Law¹³ resulted in the waiver of the State Tax on Circulation of Goods and Services (ICMS), which previously provided substantial

¹³ "Approved in 1996, [...] the legislation that exempts ICMS on exports of primary products and services is one of the main reasons for the leap that Brazilian agribusiness has made in recent decades, gaining international prominence" (CNA, 2022).

revenue for states and municipalities. This change favored the export of primary and semi-processed conventional products, encouraging the production of *commodities*¹⁴ for export. Consequently, agricultural production records are set, contrasting with the number of people suffering from hunger worldwide, “and it’s not due to a lack of calories produced” (Caporal, 2008, p. 5).

Thus, the structure established by the agencies in the state of Paraná to implement the school feeding legislation and the current stage of its execution ask for initiatives to modify certain legal aspects and enhance production incentives. However, it is also essential to advance public communication about the benefits of the law. As this is one of the objectives of this research, we will now examine Ppaeop from the perspective of communication management.

4. Communication as a Ppaeop management tool

Although some statements and data collected from the interviews have already been included, particularly those addressing the challenges in fully and successfully implementing the law in Paraná schools, we will revisit aspects of the theoretical review, now focusing specifically on public communication as a management process.

To analyze the communication dynamics directed at the target audience of this public policy on organic school meals and its alignment with the SDGs, two distinct groups were interviewed and observed, as outlined in the methodological section.

Group A consists of cooks, teachers, and principals from state schools, while Group B includes representatives from government institutions (Fundepar, Alep, MP, and Fetraf).

Based on previous observations, we assume that the social awareness of the intrinsic importance of providing organic school meals, as advocated by the UN SDGs (2015), has not yet been communicated strategically. Public communication, which should be directed at the diverse networks of public policy, appears underutilized, despite its numerous definitions as suggested by Massardier (2006). The fundamental concept of a public action system lies in understanding the relationship between the structure of a localized action system and the tangible public policy it generates (Massardier, 2006). This relationship needs to be communicated to the involved publics and society at large, in a clear and precise manner.

Although Massardier's (2006) reflections primarily focus on public policy networks, they also help us to understand the actions of the actors within these networks, including various social phenomena, and the processes through which interest groups mediate, debate, and shape perceptions. Public communication, when used as a management strategy, has the potential to foster these dynamic interactions and perceptions. As such, Brazilian public communication campaigns, like those that successfully promoted vaccination against polio, or outlined prevention and treatment strategies for AIDS—both of significant public interest—can serve as models for the Ppaeop initiative.

¹⁴ In economics, commodities is a term that corresponds to non-industrialized global basic products or raw materials that, regardless of where they are produced, have a price determined by international supply and demand.

According to Costa (2006), when a government promotes and implements campaigns in the public interest, it emphasizes communication as a vital tool for raising awareness and mobilizing the involved public. This suggests that communication efforts are an integral part of managing public policy in any domain, particularly during the implementation phase. However, despite Costa's (2006) recommendations and the urgent need for the paradigm shift advocated by the UN in its SDGs, the Ppaeop lacks a dedicated campaign to communicate its significance. Instead, information is sporadically shared in venues like school management meetings with teachers and through occasional newsletters during the periods when Fundepar purchases school meals.

According to Brandão (2009), public communication encompasses various domains, each serving distinct purposes within public management. Among these, the concept of public communication as a two-way street is particularly relevant for the Ppaeop. This approach not only facilitates and stimulates public interest in the debate but also has the potential to motivate, educate, and foster citizenship beyond government institutions. The author defines public communication as:

[...] a communicative process of society's bodies that work with information aimed at citizenship. These include government bodies, non-governmental organizations, professional associations, and associations of various interests, community associations, in short, the so-called third sector, as well as other instances of state power, such as councils, regulatory agencies, private companies that work with public services in the fields of telephony, electricity, etc. (Brandão, 2009, p. 5).

Therefore, in order to effectively connect the various public policy networks that share a common interest in environmental sustainability as a universal good, and to ensure adherence to the SDGs across all actions of these networks, it is increasingly urgent to define and activate the roles of communication. This approach should aim not only to inform but also to generate awareness and foster sensitivity towards these issues (Wolton, 2011).

For Dominique Wolton (2011), it is essential to distinguish between the process of information (the transmission of data or news) and the process of communication. Wolton emphasizes that "informing is not communicating," asserting that while there is no information without communication, "information is the message. Communication is the relationship which is much more complex" (p. 12). He further notes that "information has become abundant; communication, a rarity. Producing information and having access to it no longer means communicating" (Wolton, 2011, p. 16). In discussing these two aspects, Wolton explains: "It is not possible to establish a hierarchy. We must think of them together, with communication requiring a slightly more complex treatment because it concerns issues of relationship, alterity, and the receiver" (Wolton, 2011, p. 13). In summary, communicating involves sharing, dialoguing, coexisting, and negotiating. Information is a crucial element in this process but not the decisive one for transforming situations, or motivating and sensitizing the actors involved. Therefore, we seek to understand the meanings attributed to communication as defined by Wolton (2011), so that to gain a deeper insight into communication as a symbolic process or action.

We now turn our attention to a specific type of communication: environmental communication

(Cox & Pezzullo, 2018), which is relevant here because it involves communicating about school meals based on unconventional organic/agroecological production. Environmental communication requires deeper reflection on the complex world we inhabit, a world marked by symbolic forms that manifest both pragmatically and constitutively. According to Cox and Pezzullo (2018), "Environmental communication, in its pragmatic dimension, occurs when modes of interaction take place verbally and non-verbally, conveying a non-verbal purpose," such as that which "greets, informs, demands, promises, requests, educates, warns, persuades, rejects, and much more" (Cox & Pezzullo, 2018, p. 34). The constitutive form of environmental communication, the authors suggest, involves verbal and non-verbal modes of intervention that aim to foster a particular kind of interaction with others, approaching them from a more specific perspective, and evoking beliefs and emotions capable of moving and sensitizing them.

The interactions that the law implementing the Ppaeop can potentially enhance encompass environmental, economic, and food, and nutrition security issues. This inherently calls for interdisciplinary processes, which, to be fully understood, must be actively fostered through effective communication practices.

5. Results and interpretative analysis of the data collected

This section presents the findings from the two analytical categories applied to the content gathered through questionnaires (Group A) and interviews (Group B), while also offering an interpretative analysis of these results.

5.1. Analytical category 1 - Difficulties and goals in implementing the law requiring the inclusion of organic products in food in Paraná state schools (Group B)

Table 4 provides a summary of the statements made by the four interviewees, which include representatives of the government, as well as of the organic food producers. The table highlights their perspectives on the current state of the implementation of the law, focusing particularly on the challenges and objectives necessary for achieving the successful, even if gradual, execution of the law in Paraná state schools.

As shown in Table 4, despite the support for the law from representatives of all four surveyed bodies, each identifies specific challenges that hinder the achievement of the targets within their respective areas. Interviewee B1, from Fundepar, notes the gradual increase in the supply of organic food, emphasizing the slow progress toward reaching the 100% target by 2030. Interviewee B2, from the Legislative Assembly, underscores the necessity of political backing for the effective implementation of the process. Interviewee B3, from the Public Prosecutor's Office, points to the critical role of legal regulation, and the establishment of a management committee. Interviewee B4, representing organic food producers, highlights the need for supportive actions to make organic production feasible. While it is not possible to address all issues raised by these public agents, a few key points are particularly noteworthy.

Regarding the difficulties in the purchasing process, which falls under the responsibility of Fundepar, B1 notes that there is significant potential

for growth within the 30% allocation designated by the PNAE for direct purchases from family farms. Concerning the Legislative Assembly (Alep), its representative emphasizes that it will continue to provide political support in terms of legislation, demands, and oversight. The Public Prosecutor's Office, which has been involved in shaping the regulations, the Management Committee, and the initial Action Plan, commits to maintaining its support in these areas. The most challenging goal remains the expansion of organic and/or agroecological production. This goal is particularly dependent on the efforts of producers who rely on their labor and small-scale farms, requiring ongoing maintenance, as well as technical assistance, to support their activities.

The analysis of the responses, detailed in Table 4, reveals a range of difficulties in implementing the public policy. It suggests that there is resistance from the state government towards fully implementing Ppaeop. Such resistance manifests in a lack of necessary structural conditions for this policy to be successful, no matter how gradual it proves to be. Effective implementation would require not only robust and permanent public policies related to organic and agroecological family farming, but also training school cooks, strategic investments in scientific research, and public awareness campaigns about the law.

TABLE 4 - Ppaeop from the point of view of the representatives of the government and organic food producers.

Interviewee	Implementation	Difficulties	Goals
B1	In 2022, 07.6% of the 100% target by 2030.	*Buy with Pnae funds. *Insufficient production. *No perception in schools. *Lack of an official deadline for implementation. *Lack of research on the subject.	*Technical framework. *Scientific research. *Meet the implementation deadline of 2030.
B2	Political support for family farming.	*Lack of public policy for family farming.	*Political support for family farming.
B3	Regulation of the Law and creation of a Management Committee.	*Absence of public policy focused on production to achieve the goal by 2030.	*Contribute with the state so that the target is met by 2030.
B4	Demand for a viable organic production model.	*Lack of public policy for organic production. * Lack of training for cooks.	*Advances in structural policies, awareness-raising and scientific research.

SOURCE: Andrade (2023).

5.2. Analytical category 1 - Difficulties and goals in implementing the law requiring the inclusion of organic products in food in Paraná state schools (Group A)

The application of questionnaires to the three types of respondents among educational agents (Group A) led to Table 5, which summarizes the main insights regarding the implementation, challenges, and goals associated with the public policy under study.

The group of educational agents was largely supportive of the implementation of the new law, as reflected in the second column of Table 5. Interpretatively, the fact that the majority of respondents did not either report or identify difficulties in the process of implementing the law in schools suggests that this may be due to limited awareness of Ppaeop, as noted by the Fundepar representative (B1): *schools (and their staff) still don't know about its importance*. Additionally, despite not reporting difficulties with implementation, cooks mentioned that there are no challenges related to the preparation and storage of organic food, that students enjoy the organic meals, and that there has been an increase in the consumption of school meals since the implementation of the law.

At this point, it can be inferred that Ppaeop requires targeted communication strategies as part of its public state policy framework. Although few respondents from Group A were aware of the policy, they expressed a clear preference for less environmentally destructive methods of food production that can enhance the quality of life and health for both farmers and consumers. However, there was no discussion about the challenges related to con-

ventional production records or the feasibility of producing sufficient food, rather than just *commodities*, to address the needs of those who are either starving or suffering from chronic malnutrition. As emphasized by the representative of the Legislative Assembly of Paraná (B2), “*it's difficult to talk about organic food when we know that 33 million people are turning over garbage cans in order to eat and survive.*”

In general, the responses to the questionnaires revealed that school communities still need to engage more deeply with the issue of Ppaeop. The current scenario indicates that progress is hindered, as the focus remains on merely providing food, without adequately considering its quality and health benefits. This is due to a broader issue of inequality in food access, both globally and within Brazil, as in Paraná. In conventional agriculture, the primary concern has often been just “*eating*”, rather than ensuring the nutritional quality and healthfulness of the food provided.

5.3. Analytical category 2 - Existing communication processes and suggestions for desirable forms of communication in the process of implementing the public policy under study

Tables 6 and 7 below summarize the perceptions of Groups B and A regarding the existing and desired forms of communication processes related to Ppaeop in schools and society. Table 6 presents the insights from Group B (institutional representatives), who provide more in-depth reflections on the process, which in turn affect the perceptions of Group A (school agents).

TABLE 5 - Ppaeop from the point of view of the educational agents (Group A).

Respondent	Implementation	Difficulties	Goals
A1	It's a great partnership for the farmers.	They were not expressed.	Partnership for the farmers.
A2	Both the prices and aspects are unattractive.	They were not expressed.	More attractive products and prices.
A3	There needs to be a public policy for producers.	Lack of public policy for production.	Public policies to make production viable.
A4	Generating work and income for producers.	There are not.	
A5	There was an increase in school meals consumption.	No. It's the same care when putting it in the fridge.	Public policies to make production viable.
A6	Everything is fresh and tasty. The students like it a lot.	There are not.	
A7	Generating work and income.	They were not expressed.	Work and income.
A8	Expansion.	They were not expressed.	Increase in consumption.
A9	Improvements in eating habits and consequently in health.	They were not expressed.	Improves health.

SOURCE: Andrade (2023).

Based on the specific statements about communication and the inferences drawn from the frequency of meanings contained in the statements made in the interviews, both the existing communication processes and the gaps in communication emerge as either spontaneous or areas needing improvement.

Reports from interviewees involved in different roles within Ppaeop and from school respondents, where organic food is beginning to be offered,

highlight the absence of strategic communication. Statements from both groups, summarized in Tables 6 and 7, reflect either the presence or absence of written and/or verbal communication. These statements illustrate the actors' perceptions of the effects of the public policy under analysis.

The offer of organic or agroecological food carries multiple meanings, including methods of production that avoid pesticides, rather, encouraging the use of natural fertilizers, the maintenance of the

TABLE 6 - Existing and desired communication processes pointed out by Group B interviewees.

Interviewee	Existing	Desired
B1	Proximity Information Opportune	Public utility Poster “My school has organic food” or “Here there is organic food”. Focus on sustainability and educational quality.
B2	Undefined Difficult	Assumed by the state as its responsibility. Raising awareness among society and families to increase organic production.
B3	Insufficient	Advertising must be sufficient.
B4	Limited spaces sponsored by large cooperatives	Communication with society needs to be effective in order to include it in these experiences. “Breaking the bubble”, establishing communication with society, with alternative means of communication, valuing different local foods.

SOURCE: Andrade (2023).

TABLE 7 – Existing or perceived non-existent communication processes, in the view of Group A respondents.

Respondent		
A1	Opportune	Awareness-raising at meetings.
A2	It occurs	Did not specify it.
A3	Indirect	Not directly. It needs to be advertised.
A4	It does not occur	Students do not notice it.
A5	It occurs	Did not specify it.
A6	It occurs	Did not specify it.
A7	Interdisciplinary	It occurs randomly throughout the classes.
A8	It does not occur	There is no debate at school.
A9	Interdisciplinary	It does not occur.

SOURCE: Andrade (2023).

soil balance, and the preservation of biodiversity. It also emphasizes the need for short transport circuits, and the introduction of a new diet in schools. In this context, there is a right to information that helps explain the reasons for replacing food from conventional production methods, which use pesticides and chemical fertilizers and involve long-distance transport.

The planning and execution of the management for this public policy must integrate and advance communication processes that emphasize the socio-economic, cultural, environmental, and quality-of-life motivations behind it, justifying its implementation. This need is highlighted in the statements from interviewees, as summarized in Table 6. It is evident that there is a will for communication efforts that aim to articulate the objectives and goals of implementing organic school meals, thereby raising awareness and sensitizing both communities and society to the issue.

5.4. Lack of communication processes at Ppaeop

The lack of effective communication processes — those that are official, planned, and purposeful-aimed at fostering interaction between community members and institutional agents, is evident in the speeches of all research participants. This gap highlights the need for clearer communication to clarify and reflect on the meanings and implications of Law 16.751/2010.

The absence of communication strategies to support the management of this public policy constitutes a significant obstacle to its implementation. As noted, the sporadic messages highlighted by Group B interviewees, which occur only at specific opportunities¹⁵, and the free cross-curricular teaching alongside school subjects, fail to provide the continuous flow of communication necessary for effective information processing. According to Wolton (2011), communication requires a dynamic and interactive approach to ensure that information is not only disseminated but also assimilated and discussed, thereby fostering awareness and understanding of the motivations of such a policy.

We should also emphasize other statements regarding communication processes (Table 6), which appear in varied and circumstantial manners, with differing levels of significance in the responses of other involved actors. For instance, the representative from the Paraná Public Prosecutor's Office (B3) noted that there has not been sufficient advertising about Ppaeop, despite the importance of the issue. This lack of visibility suggests that public opinion, as gauged by media audiences and online metrics, remains unaware of the fact that most school meals currently offered show evidence of pesticide contamination, while Ppaeop struggles with implementation challenges. In other words, the absence of dialogic, interactive, journalistic, or advertising communication could also be seen as a form of planned inaction.

As regards to the respondents in Group A (school agents), it can be inferred that there is a lack

¹⁵ For example, during meetings with the heads of the Regional Education Centers, as mentioned by B1 (Fundepar representative), the interviewee noted that he uses these opportunities to provide some information about the quantity of organic products that Paraná is purchasing for school feeding purposes.

of defined, adequate, or sufficient communication actions concerning Ppaeop, and its motivations. When they state that the process is occurring, it seems they are merely taking information for communication. For instance, the representative from Fundepar (B1) highlighted that “*schools still don't know about the importance of this law*”, underscoring the lack of effective communication as a management tool. According to Cox & Pezzullo (2018), for management practices to be more effective, they must be grounded in specific communication strategies tailored to the intended purposes and goals.

5.5. Ppaeop's desired communication processes

Regarding the desired forms of communication, an aspect included in *Analytical Category 2*, the Cedraf representative (B4) highlighted the limitations of traditional media in disseminating non-hegemonic interests and emphasized the need for communication approaches that are social, interactive, dialogic, community-based, and effective. Such practices would help "break the bubble" created by hegemonic agriculture and a diet based on food contaminated by chemical residues.

The concerns expressed by the Fundepar representative (B1), summarized in Table 6, reveal that the existing communication processes related to the implementation of the public policy are still in the preliminary stages. They primarily involve basic information dissemination — such as providing an overview about the law, the representatives of the cooperatives supplying the food, their role on the State School Feeding Council (Ceae-PR,

and occasional updates during meetings with the heads of the Regional Education Centers. Essentially, these efforts amount to simple information dissemination rather than genuine communication processes. Effective communication requires a two-way interaction and dialogical engagement between the involved parties.

The difficulties stemming from the lack of targeted communication efforts to raise awareness of the Ppaeop among the school community and the general public are also highlighted in B1's comments: “*this issue of communication is our greatest difficulty. And in relation to schools, the difficulty is greater. Many of them really don't know*”, referring to both the specifics of the law and the benefits of organic food for the school community, farmers, and environmental issues. This gap in knowledge is evident in official sources as well, such as government websites, where organic school meals are not mentioned (AEN, 2022).

6. Final remarks

The public policy on school meals in Paraná (Ppaeop) is a creation of civil society with state-level implementation, but its funding comes from federal resources via the PNAE, and for all purposes, it follows its guidelines for direct purchasing from family farms, which can provide both organic/agroecological products and conventional ones.

The Ppaeop gained momentum through the advocacy of social movements, particularly those representing rural actors, who, with backing from the Public Prosecutor's Office, demanded regulations and an action plan for its implementation. This underscores the resistance from public authorities

towards its full implementation. Additionally, Paraná is the largest organic-producing state in Brazil and is also a key grain-producing region, with significant pressure from agribusiness sectors pushing for policies favoring *commodity* production. Consequently, in less progressive state administrations like the current one (2024), there is limited support for alternative agricultural production.

It is important to note that the position of the state as the largest producer of organic produce is largely due to the efforts of private investors and organizations that can afford the compliance and certification processes. In contrast, family farming — the focus of the PNAE — lacks sufficient public incentive policies, which limits the ability of many small producers to transition from conventional to organic or agroecological farming practices. Therefore, in the context of the creation and implementation of Ppaeop, the historical legislative framework and testimonies from interviewees and respondents reveal significant gaps in legislation. These gaps pertain to the management of resources allocated for the purchase of organic food for school meals and the incentives needed to support organic production.

Based on the analysis of data and content, and in alignment with Bardin's (2011) approach, grounded in theoretical background and empirical evidence, we can infer the following: the law in question, despite being a state public policy rather than a government initiative, has faced slow implementation and numerous challenges, raising questions about the commitment of the current state administration to it. Key difficulties in implementing the law include the lack of specific policies to bolster organic and agroecological production. However, there are structural opportunities for increasing the supply of

organic food, provided that incentives are offered to family farming. Interviewees consistently highlight these incentives as crucial for ensuring food and nutritional security — an objective of the policy —, and for improving environmental conditions in production spaces.

Another factor highlighting the lack of appreciation for this public policy is the absence of planned public communication processes as a management tool, which neglects the right to information as a public utility that underscores its importance to society. This lack of communication fails to promote public awareness and advocacy for healthier school meals and a pro-environmental approach. Similarly, low communicative action makes invisible initiatives that promote constructive interactions between society and the environment, as required by the United Nations global agenda (ONU, 2015). The proposed change in the school feeding production model by Ppaeop, from a public communication perspective, offers significant pedagogical, educational, and timely potential to address issues such as food sovereignty, quality of life and health, agroecological and organic production, as well as other themes central to the perspective of socio-environmental sustainability.

Based on the participants' responses in the survey, it is evident that communication strategies have not yet been implemented, which hampers public support for the Ppaeop. The little that is disclosed is limited to spontaneous, sporadic, and insufficient informational processes, with no planned public communication actions as a management tool capable of raising awareness and fostering understanding of its importance, sustainability, biodiversity, nutritional, health, social, and economic aspects.

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