

Challenges and strategies for incorporating sustainability into social oversight within certain Municipal School Feeding Councils in Minas Gerais under the National School Feeding Program

Desafios e estratégias para a inclusão da sustentabilidade no controle social de alguns Conselhos de Alimentação Escolar municipais de Minas Gerais no Programa Nacional de Alimentação Escolar

Desafíos y estrategias para la inclusión de la sostenibilidad en el control social de algunos Consejos de Alimentación Escolar municipales de Minas Gerais en el Programa Nacional de Alimentación Escolar

Défis et stratégies pour l'intégration de la durabilité dans le contrôle social de certains Conseils Municipaux de l'Alimentation Scolaire du Minas Gerais dans le cadre du Programme National d'Alimentation Scolaire

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ABSTRACT

The study aimed to understand the role of certain Municipal School Food Councils (CAEs) in Minas Gerais in promoting sustainability within the National School Feeding Program (PNAE) and to evaluate the impact of virtual training, using action research as proposed by Thiollent. The CAEs are composed of representatives from civil society; education workers and students; parents of students; and representatives from the executive branch. During two sessions of a virtual workshop, discussion groups were conducted, with the conversations recorded, transcribed, and subjected to thematic content analysis as proposed by Bardin. School gardens and partnerships with technical assistance institutions were cited as opportunities to promote sustainability in the PNAE. Lack of support and knowledge about food and nutrition among the school community were highlighted as challenges. All CAEs reported their intention to include sustainability in the social oversight of the PNAE in their municipalities.

KEYWORDS: School Feeding Program; public policies; civil society organizations.

RESUMO

O estudo buscou compreender a atuação de alguns Conselhos de Alimentação Escolar (CAEs) municipais em Minas Gerais acerca da sustentabilidade no Programa Nacional de Alimentação Escolar (PNAE) e avaliar o impacto de uma formação virtual, utilizando-se da pesquisa-ação, conforme proposto por Thiollent. Os CAEs são formados por representantes da sociedade civil; trabalhadores da educação e discentes; pais de alunos e representante do poder executivo. Durante dois encontros de um workshop virtual, foram realizados grupos de discussões, sendo as falas gravadas, transcritas e submetidas à análise temática de conteúdo, proposta por Bardin. As hortas escolares e a articulação com instituições de assistência técnica foram citadas como oportunidades de promover a sustentabilidade no PNAE. A falta de apoio e de conhecimentos sobre alimentação e nutrição pela comunidade escolar foram destacados entre os desafios. Todos os CAEs relataram intenção de incluir a sustentabilidade no controle social do PNAE em seus municípios.

PALAVRAS-CHAVE: Programa Nacional de Alimentação Escolar; políticas públicas; organizações da sociedade civil.

RESUMEN

El estudio buscó comprender la actuación de algunos Consejos de Alimentación Escolar (CAE) municipales en Minas Gerais sobre la sostenibilidad en el

Programa Nacional de Alimentación Escolar (PNAE) y evaluar el impacto de una formación virtual, utilizando la investigación-acción, según lo propuesto por Thiollent. Los CAE están formados por representantes de la sociedad civil, trabajadores de la educación y estudiantes, padres de alumnos y un representante del poder ejecutivo. Durante dos encuentros de un taller virtual, se realizaron grupos de discusión, cuyas intervenciones fueron grabadas, transcritas y sometidas a análisis temático de contenido, conforme a la propuesta de Bardin. Las huertas escolares y la articulación con instituciones de asistencia técnica fueron mencionadas como oportunidades para promover la sostenibilidad en el PNAE. La falta de apoyo y de conocimientos sobre alimentación y nutrición por parte de la comunidad escolar se destacó entre los desafíos. Todos los CAE manifestaron la intención de incluir la sostenibilidad en el control social del PNAE en sus municipios.

PALABRAS CLAVE: Programa Nacional de Alimentación Escolar; políticas públicas; organizaciones de la sociedad civil.

RÉSUMÉ

L'étude visait à comprendre l'action de certains Conseils de l'Alimentation Scolaire (CAEs) municipaux dans l'État du Minas Gerais concernant la durabilité dans le Programme National d'Alimentation Scolaire (PNAE) et à évaluer l'impact d'une formation virtuelle, en utilisant la recherche-action, telle que proposée par Thiollent. Les CAEs sont composés de représentants de la société civile, des travailleurs de l'éducation, des étudiants, des parents d'élèves et d'un représentant du pouvoir exécutif. Au cours de deux sessions d'un atelier virtuel, des groupes de discussion ont été formés, les échanges ont été enregistrés, transcrits et soumis à une analyse thématique de contenu, telle que proposée par Bardin. Les jardins scolaires et la collaboration avec des institutions de conseil technique ont été mentionnés comme des opportunités pour promouvoir la durabilité dans le PNAE. Le manque de soutien et de connaissances sur l'alimentation et la nutrition au sein de la communauté scolaire a été mis en avant parmi les défis. Tous les CAEs ont exprimé leur intention d'inclure la durabilité dans le contrôle social du PNAE dans leurs municipalités.

MOTS-CLÉS : Programme National d'Alimentation Scolaire ; politique publique ; organisations de la société civile.

INTRODUCTION

The National School Feeding Program (NSFP) was created in 1983, but originated in 1955, under the Getúlio Vargas administration, with the School Meals Campaign (Paraná, 2017). In 2001, Provisional Measure 2. 178, it became mandatory for 70% of the resources of the National Fund for the Development of Education (NFDE) to be earmarked for the acquisition of basic foodstuffs in order to respect regional eating habits, which for Gregolin et al (2018), although priority was given to the acquisition of basic foodstuffs and regional production, to the detriment of industrialized and globalized foodstuffs, there was still no real interest in promoting sustainable development, and it aimed to reduce transport costs, as the wording of the provisional measure shows, that is, the vision was still based on the economic aspect.

Since 2009, with the regulation of Law No. 11,947, the program has been linked to the promotion of sustainable development, establishing that at least 30% of the funds transferred by the federal government to the NSFP must be spent on family farming (Brasil, 2009). Family farming is a form of agricultural production practiced in many Brazilian municipalities and is a strategy for sustainable, social, economic, and cultural development. Family farming helps to reduce hunger, unemployment, and malnutrition, as well as providing the population with healthy and regional food (Sousa *et al.*, 2015).

In this context, aiming for advances in sustainable socioeconomic development, Food and Nutrition Security (FNS) and student health, the National Education Development Fund (NEDF) published on May 8, 2020, Resolution No. 6/2020 of the Deliberative Council / NEDF, which establishes the supply of school meals to students within the scope of the NSFP, presenting changes in the school meals menu, in order to reinforce the presence of fresh and minimally processed foods, especially agroecological, organic and family farming; the presence of socio-biodiversity foods that respect local eating habits, culture and sustainability (Brasil, 2020).

Thus, Resolution 06/2020 presents some tools and actions for tackling food and its impacts on health and the environment, better known as the Global Syndemic of obesity, malnutrition, and climate change, through changes to menus, as well as valuing the dimension of sustainability throughout school food systems (Dutra; Dala-Paula, 2022; Swinburn *et al.*, 2019).

The NSFP's guidelines and standards shape the program as an instrument for promoting health, Food and Nutrition Security (FNS), and sustainable development and were drawn up on the basis of the Food Guide for the Brazilian

Population. In addition, the food and nutrition education process should be considered fundamental to achieving the objectives and should be based on the guidelines established in the Food and Nutrition Education Framework of Reference. Therefore, any action relating to the NSFP in the school environment must be based on sustainability in all its dimensions (social, environmental, and economic), on addressing the food system in its entirety, and on issues related to teaching self-care so that students can autonomously seek to change their eating habits and understand the relationship between food and integral health (Brasil, 2012).

Considering the dimensions of sustainability in the NSFP, more specifically the environmental dimension, because the school is an educational environment, with the potential to work on awareness and create broader outlines, one can cite fundamental approaches, for example, the control of food waste, and the irrational use of food and its relationship with the generation of organic and even inorganic waste (represented by plastic packaging) for the environment and the impacts on public spending (Boschini *et al.*, 2018).

Considering the above, the School Feeding Council (SFC) is a cornerstone of the Federative Republic of Brazil's Constitution, which aims to ensure the participation of public authorities and civil society in the formulation, implementation, and control/monitoring of public policies. One of the SFCs' functions is to guarantee FNS in schools and, to this end, they oversee the public resources that are passed on by the NFDE to the implementing entities, as well as the supplementary resources provided by the States, Federal District, and Municipalities (Da Rocha Santos *et al.*, 2022).

According to Resolution CD/NFDE No. 6/2020 (amended by Resolution CD/NFDE No. 20/2020), which revoked Resolutions CD/NFDE No. 26 of June 17, 2013, and No. 4 of April 23, 2015, the SFC is composed of 2 representatives of civil society; education workers and students; representatives of students' parents and 1 representative of the executive branch, with a total of 7 members, and renewal every 4 years. The resolution also states that even though the activities carried out by SFC councilors are voluntary, it is the duty of the Executing Entity (municipalities and states) to ensure adequate infrastructure for the full functioning of the council's activities (Brasil, 2020).

Therefore, the aim of this study was to understand the role of municipal SFCs in the state of Minas Gerais in social control and the sustainability dimension of the NSFP, as well as to assess the effect of an educational intervention on the intention of the councilors to act.

METHODOLOGY

Research characterization

This is an action-research study, defined as a model of social research with an empirical basis, which is developed in conjunction with an action or the resolution of a collective problem, where participants and researchers are involved in the situation in a participatory or cooperative manner (Thiollent, 2022).

In the present study, action research was directed towards the development of diagnoses, identification of problems, and the search for solutions, utilizing qualitative methods and techniques, such as focus groups and content analysis. For the characterization of the sample, quantitative analyses of mean, median, and standard deviation were also conducted.

Recruiting

This study was approved by the National Research Ethics Committee (CO-NEP) under CAAE: n°53194421.0.0000.5142, Opinion number: 5.460.401. Participants were informed of the Free and Informed Consent Term (FICT), which they signed after reading and agreeing to take part in the research.

Around 1,200 individuals were invited to take part, representing 400 municipalities in the state of Minas Gerais, by e-mail, according to their registration on the e-NSFP platform, an application associated with the NSFP. The inclusion criteria were: individuals who were part of the School Feeding Council of any municipality in Minas Gerais, who were available to take part in the virtual meetings that would take place, according to the pre-programmed date and time.

Educational intervention (workshop)

The educational intervention carried out was a workshop consisting of two virtual and synchronous meetings, using the Zoom platform, whose access link was made available via e-mail to registered participants. The aim of the workshop was to form a support network for the development of actions relating to the social control of the NSFP, which include the dimension of sustainability. The meetings took place on August 8 and 11, 2022, each lasting 2 hours. The workshops were moderated by a researcher with experience in discussion groups, with the participation of two nutritionist rapporteurs. In addition to the synchronous activities, the workshop included asynchronous activities in the Virtual Learning Environment, Moodle, with the provision of teaching materials (Dala-Paula; Lourenção, 2022a, 2022b, 2022c e 2022d),

discussion groups, presentations and short videos on the YouTube channel of the ReFoRSSe project (Training Network for the Preparation of Healthy and Sustainable Meals in Schools), linked to this research (<https://www.youtube.com/@projetoREFORSSE5163>).

The first day of the synchronous meeting was structured as follows: a) filling in the “Characterization of the SFC’s role in overseeing the NSFP in the participating municipality” form; b) presentation of the organizing team and the workshop objectives and format; c) presentation of the theme “Climate Change and Environmental Sustainability Associated with Food Production and Eating Habits”; d) discussion group; e) presentation of the virtual learning environment (Moodle) and the materials provided; f) closing. The second day covered: a) an introduction to the workshop; b) reports on the experiences of SFCs and initiatives aimed at the sustainable production of meals in the NSFP; c) discussion groups on the reports and exchanges of experiences between the participating SFCs; d) closing.

The discussion groups were guided by the following questions: “What activities under the NSFP does the SFC I am part of carry out?”; “How can I contribute to ensuring sustainability and healthiness through the social control carried out by the SFC?”. The following probes: “challenges, strategies and opportunities” were included in order to stimulate and lead the discussion, to properly understand the role of municipal SFCs in the state of Minas Gerais in social control and the sustainability dimension of the NSFP. As required by the technique, the focus group sought the active participation of the subject in the research, giving them the freedom to express their opinion on the meaning of their actions about their daily lives (Manrique, Pineda, 2009).

Characterization of working conditions and activities carried out by School Feeding Councils (SFCs)

A semi-structured questionnaire was given to each participant in order to characterize the organization, working conditions, and actions carried out within the scope of the NSFP’s social control, with emphasis on those that permeate the sustainability dimension (supplementary material 1).

Focus groups

The focus group is a practice close to spontaneous, informal social discourse, in which social ideological conflicts take place. It aims to better interpret affective motivational values, their expectations and beliefs, as

well as the projection of their conscious and unconscious desires, fears, and resistances around the problem under investigation (Godoi, Mastella & Uchôa, 2018). Therefore, the two previous meetings were recorded, the speeches were transcribed, and language errors were corrected, as described by Fletcher (2017).

Evaluation of the effect of the educational intervention on the advisors' intention to act

At the end of the second day of the workshop, the participating councilors answered a structured questionnaire (supplementary material 2), with questions aimed at identifying their intention to make changes in the exercise of fiscal control over the NSFP. The changes surveyed were those that would have an impact on the control of school meals, with a view to ensuring healthy and adequate food, the production of which is focused on sustainability.

Content analysis

To analyze the qualitative data, the thematic content analysis method proposed by Bardin (1997) was used, which seeks to identify the attitudes of the subjects in relation to the object they are talking about, when they express opinions on a piece of content. This analysis has three stages: (i) pre-analysis; (ii) exploration of the material and (iii) treatment of the results, inference, and interpretation. Pre-analysis consisted of organizing the material and for these 5 steps were fundamental: 1) completeness 2) representativeness 3) homogeneity 4) pertinence 5) exclusivity. Exploring the material consisted of coding the data, at which point the data was systematically transformed and aggregated into units. In the treatment of the results, inference, and interpretation, the analysis was based on the theoretical framework, which provided meaning for the interpretation (Bardin, 1997). To this end, the content was organized into 'categories,' each characterized by a set of 'elements' that collectively address a specific theme. Excerpts from the counselors' statements, defined as 'quotations,' illustrate the discussed element, and 'degree of intensity' refers to the frequency with which the element emerged among the participants during the discussion group, categorized as follows: + for one occurrence of the element; ++ for two occurrences; and +++ for three or more occurrences.

The names of the participants were kept anonymous, as was the city to which they belonged in the municipal SFC.

RESULTS

Characterization of the municipalities and their respective municipal School Feeding Councils (SFCs)

Minas Gerais' population is estimated at 20,538,718 inhabitants, according to IBGE data (IBGE, 2022). Minas Gerais is made up of 13 Intermediate Geographical Regions (IGRs): Belo Horizonte, Montes Claros, Teófilo Otoni, Governador Valadares, Ipatinga, Juiz de Fora, Barbacena, Varginha, Pouso Alegre, Uberaba, Uberlândia, Patos de Minas and Divinópolis (IBGE, 2017).

Of the municipalities participating in this research, the presence of members of the Intermediate Geographical Regions of Belo Horizonte, Uberaba, and Governador Valadares was observed. The municipalities participating in this research have different sociodemographic characteristics in terms of education and economy, as shown in Table 1, which can be seen in the standard deviation of each of the characteristics, as well as the range of values. This shows the different scenarios in which the SFCs operate, which should be relevant to the interpretation and analysis of the data collected in this research.

Table 1 – Sociodemographic characterization of education in the municipalities participating in the survey

Characteristics	Total	Mean	Median	SD	Approximate min-max
Estimated population**	1,184,293	118,429	20,862	193,878	3,700 – 621,900
Total enrollment in educational institutions					
Infantil*	37,294	3,729	854	5,482	200 – 16,600
Primary*	132,378	13,238	2,380	21,634	600 – 69,800
High school*	34,725	3,473	610	5,725	100 – 18,200
Number of educational institutions					
Early childhood*	352	35	10	54	1 - 200
Primary*	364	36	11	54	1 - 200
High school**	134	13	3	21	1 – 70

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Characteristics	Total	Mean	Median	SD	Approximate min-max
Employed population*	422,695	42,270	4,729	69,807	500 – 225,700
Average monthly salary (in minimum wage) of formal workers*	20.4	2.0	1.8	0.7	1.0 – 4.0

Legend: SD: standard deviation; * referring to 2021; ** referring to 2022.

Source: IBGE (2021; 2022).

The workshops were attended by 25 SFC members from 10 municipalities in the state of Minas Gerais. Of the SFC members taking part in this survey, 61% were full members, 25% were substituted and 14% preferred not to answer. Regarding the representation category on the SFC, 47% were civil society representatives, 43% were government representatives and 11% preferred not to answer. In half of the participating SFCs, there was no councilor from the “student” segment, and 96% were duly made up of representatives from the expected segments, the other 4% preferring not to answer.

Regarding the working conditions of the municipal SFCs, around 68% of respondents have sufficient human resources to carry out their activities properly; 75% have computer equipment and 79% have an appropriate venue with suitable conditions for meetings and transportation to travel to the places where they carry out their duties. Of the respondents, 64% reported that there are no schools in indigenous or *quilombola* (an Afro-Brazilian resident of *quilombo* settlements first established by escaped slaves in Brazil) areas in their municipality.

Concerning the services provided by the SFC, 68% are consulted and issue an opinion on the substitution of foodstuffs in public calls and receive training in NSFP inspection. Around 79% are attentive to the application of the acceptability test of the menus offered; 89% of respondents reported requesting all documents and information regarding the execution of the NSFP from the Department of Education; supervising the food service in schools and monitoring food waste related to the production of meals at school and also in relation to student consumption. In addition, around 90% reported holding a specific meeting to assess the accounts of the municipal executing entity, respecting the minimum quorum for this activity, as well as analyzing them in order to issue a conclusive opinion in SIGECON. Almost all respondents (93%) reported that they notify the NFDE or another competent body when they identify any irregularities in the execution of the NSFP and (96%) provide information and submit reports on the monitoring of the execution

of the NSFP whenever requested. All the respondents said they check the quality of the food, especially the hygiene conditions.

As for the menu, the majority of respondents (93%) reported receiving the menus from the Department of Education. Around 82% check the cultural aspects of the preparations included in the menus; 96% check the introduction of food from local family farms; 86% check the health-promoting capacity of the menus and report receiving advice from the nutritionist working in the NSFP. However, just over half of the interviewees (61%) mentioned that they did not check the impact of the menu on environmental sustainability.

When it came to questions about the SFC's partnership network, 18% of respondents said they had no contact with SFCs in other municipalities; however, 75% established other partnerships on a cooperative basis.

Discussion group

By analyzing the transcripts of the statements made in the focus group regarding the guiding question: **"What activities within the scope of the NSFP does the SFC to which I belong carry out?"**, it was possible to group them into the following categories of responses (Table 2).

Table 2 – Activities carried out by the members of the participating SFCs in the context of the NSFP

Categories	Description	Quotes	Level of intensity
Bidding	Evaluation of foodstuffs in the bidding process	"Whenever there is a new bidding process, we analyze the food that will be served to the children"	+
Visits	Visits to school units	"... In the action plan, we have weekly visits, and if there is a complaint, or something positive, the SFC inspects, and what works there is shared with the rest of the network"	+++
Menu	Evaluation of menu compliance and acceptance	"We make the visits to check on the school meals and how they are being served to the students, and we also do the acceptability test"	++
Training	Training for school lunch staff and training for the SFC	"... the municipality received the CECANE [Collaborating Center for School Food and Nutrition] people last month and the month before, and we had a training session together with family farming..."	++

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Categories	Description	Quotes	Level of intensity
Good handling practices	Checking hygiene and sanitation conditions	"Here, most of the time it's more about (...) handling school meals, the quality of the products, than the product receipts..."	+
Exchanges	Multiplication of new practices	"...we visit other municipalities to get new ideas and also to bring our way of working and our ideas"	+

Source: Produced by the authors.

When the group was asked: "How can you contribute to ensuring sustainability and healthiness through the social control carried out by the SFC?", it was possible to identify the following challenges: adherence by the agents involved to ensuring the menu is healthy. However, the participants also presented strategies and opportunities for carrying out social control to ensure the healthiness and sustainability of school meals, such as growing a school garden, partnerships with the Minas Gerais State Technical Assistance and Rural Extension Company (EMATER) and public calls, as shown in Table 3.

Table 3 – Strategies, Opportunities and Challenges of the SFC's actions in the sustainability and healthiness of school meals

Categories	Element	Quote	Level of intensity
Strategies	Improvements in food preparations	"I help the cooks with the preparations to avoid ultra-processed foods, with spices that people usually buy a lot [referring to industrialized spices]"	++
	Participation in training	"That's what we do [referring to the training sessions], we go around the city from time to time for training, we always do these training sessions with the cooks, in this sense [in the sense of educating them to do the right thing]"	+
	Actions to make full use of food	"We're going to start a project with the chefs at <i>quilombola</i> schools on making full use of food, using peelings and stalks and better use of inputs from family farming, linking this to the use of recipes of <i>quilombola</i> origin, respecting the resolution's guidelines"	+
	Presence of a school garden	"... in early childhood education, I work with the children, in addition to the vegetable garden, the garden, the PANC's [Non-Conventional Food Plants], there we also talk about sustainability, the planet and everything else." - [Speech by a teacher who is a member of the SFC]	+++

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Categories	Element	Quote	Level of intensity
Opportunities	Articulation with EMATER representatives	"The nutrition center of the education department here [referring to the municipality where she works] has a partnership with EMATER, so they already have some family farmers who supply food for school meals"	++
	Visits to local family farms	"We also have a partnership here, to take the children from the schools, from the CEMEIs [Municipal Early Childhood Education Centers] to get to know the countryside, where this partnership comes from, from the agricultural food to the municipality, also valuing the farmers in our municipality and in the region, besides the fact that the type of food (vegetables) that reaches the children's table in the schools is very important"	+
Challenges	Lack of support from the implementing organization	"We visit the schools on foot... it's very simple... some of the things in the resolution we didn't have, and now we can demand them, including from the town hall, which leaves a lot to be desired"	++
	Low acceptance of the menu	"We're having trouble weaning ourselves off sugar. The use of lentils and chickpeas is not very well accepted by the children"	+
	Negative interference by teachers in school meals	"I think the biggest problem in terms of acceptance comes from the teachers because they criticize a lot without having any knowledge, and then it affects us school workers, and some of them also criticize the menu because they don't have any knowledge"	++

Source: Produced by the authors.

At the end of the two-day workshop, the participants answered a questionnaire on their intention to change the way they exercise social control. This questionnaire aimed to assess the impact of the educational intervention as a pilot project for other, broader scenarios.

Effect of an educational intervention on counselors' intention to exercise fiscal control

In this dimension, 12 councilors took part, representing 7 municipalities. 100% of the respondents reported that they intended to question nutritionists about the health-promoting properties of the menus drawn up in the NSFP; the cultural aspects of the preparations included in the menus drawn up by the nutritionist; the introduction of food from local family farming in the menus drawn up by the nutritionist; the impact of the menus drawn up by

the nutritionist in relation to environmental sustainability; the SFC's intend to meet/question themselves about food waste in schools during the production of meals and in the leftovers from the students' meals.

Through the meetings, it was possible to foster partnerships between half of the SFCs present and to exchange experiences for the development of future actions.

DISCUSSION

Given that the SFC plays a key role in social control, which involves advising and overseeing the entire school feeding process, from food acquisition, preparation, and distribution to accountability (Sperandio & De Castro Morais, 2021), most of the SFCs present have adequate composition, as well as adequate structure for the development of their actions.

Still on the characterization of the participating SFCs, the majority reported holding specific meetings to assess the accountability of the municipal executing entity, in addition to requesting all documents and information regarding the execution of the NSFP from the Department of Education and overseeing the execution of the NSFP in school units. It is the SFC's role to report misuse of public resources to the NFDE, the Public Prosecutor's Office, and other competent bodies, such as the Federal Court of Auditors (Araújo & Diniz, 2013; Teixeira *et al.*, 2009). In addition, councilors should pay attention to the quality of the meals offered and analyze the accountability of the executing entity (Araújo & Diniz, 2013; Teixeira *et al.*, 2009).

Another aspect observed was training, which can be a critical factor in the success of the SFC since if the councilor does not have sufficient knowledge, they will not be able to identify irregularities and act satisfactorily (De Castro *et al.*, 2020). In a survey carried out by Ferreira *et al.* (2019) in 38 municipalities in Rio de Janeiro on the perception of agents operating the National School Feeding Program, it was found that among the difficulties reported was the lack of training offered to its members.

With this in mind, one of the ways of obtaining technical and operational support is through Collaborating Center for School Feeding and Nutrition (CECANE), which aims to provide technical and operational services to municipalities and states, aimed at implementing healthy eating in schools, including training for the professionals involved in the system, including school cooks, canteens, school feeding advisors and other interested professionals (Almeida, 2021).

Training processes are important because it is through knowledge and understanding of the laws that counselors are able to monitor and seek improvements in the menu, including healthiness. Considering that in 2020 there were changes in the preparation of menus, among the main changes were the delimitation of canned foods, which can only be offered once a month; restriction of added sugar in food and beverages during manufacture or preparations made at home; cookies, crackers, bread or cake varying from twice a week to three times a week or a maximum of seven times a week, depending on the number of meals eaten by the student and the school term; the use of margarine or vegetable cream varying from once a week or twice a month, depending on the school term (Brasil, 2020).

The actions carried out by nutritionists and the SFC should be supported by teachers, monitors, and anyone else who helps with the schoolchildren's meals. School meals should be a means of promoting healthy eating habits, reflecting positively on the growth and development of schoolchildren (Silva *et al.*, 2023). Thus, the proper implementation of the NSFP are strategy to reduce the prevalence of food and nutritional insecurity and hunger (Amorim *et al.*, 2020). These actions directly help to increase the family income of residents under the age of eighteen and rural workers (Salgado & Delgrossi, 2022).

In addition, as reported by Ferreira *et al.* (Ferreira *et al.*, 2019), another challenge for SFCs is the scarcity of visits to schools due to access difficulties. According to the legislation (Brasil, 2020), the Executing Entity must provide the necessary infrastructure for board members to travel, and in the absence of this non-compliance, the monitoring of the program's guidelines is compromised (Ferreira *et al.*, 2019).

All these aspects are part of a complex multidimensional relationship between the NSFP and health and sustainability. There is no way to offer a healthy diet with food produced from an unsustainable food system. To this end, food should be healthy without limiting it to the nutritional value of menus, but rather from the perspective of sustainability (Martinelli & Cavalli, 2019).

Considering the themes related as synonymous—sustainability and sustainable development—these were defined in 1987 in the Brundtland Report as development that meets present needs without compromising the ability of future generations to meet their own needs (Brundtland *et al.*, 1987). However, the application of this concept presents real challenges, as the levels of environmental degradation continue to increase in order to meet current needs (Bedin; Faria, 2021).

According to Boff (2012), this concept has limitations due to its anthropocentric nature, as it does not include other living beings that also depend on the biosphere and sustainability. For the author, the concept of sustainability must extend beyond the preservation of natural resources and lead individuals to think of themselves as integrated subjects within nature. Sustainability is directly related to issues such as social justice, as well as the values and attitudes towards the development model to which we are subjected. It proposes the construction of a new civilizational paradigm in which ecology is not limited to pure environmentalism. Gadotti (2008) asserts that sustainability “refers to the very meaning of who we are, where we come from, and where we are going as human beings.” Therefore, all actions must be designed to foster an awareness of planetary citizenship, alongside effective citizenship at local and national levels, generating transformations in economic, political, cultural, and institutional areas, as well as in social and economic rights.

In accordance with a more integrated and broader perspective of the concept, there is a significant need for deeper discussions within the school environment, encompassing various dimensions of life and not solely focusing on relationships with nature.

On the importance of recognizing the complexity of sustainability and the healthiness of food, it is crucial to reinforce within the school community that a healthy diet is one that has a low environmental impact. Triches (2020) emphasizes that the selection of foods constituting a sustainable diet is not limited to nutritional aspects but involves an analysis of the impacts generated on both health and the environment. This encompasses at least five dimensions: health, economic, cultural, environmental, and agricultural, considering the agri-food system. Thus, the author asserts that a healthy diet, which meets nutritional needs, does not necessarily consist of foods that produce fewer greenhouse gases or make appropriate use of land, water, and energy. Furthermore, she highlights the understanding that within all food groups, some will be more sustainable than others, as it is essential to consider how and where they were produced, manufactured, transported, prepared, and consumed.

Strategies and opportunities allow us to enter sustainability, which is interconnected with family farming and other actions that reduce environmental impacts such as combating waste. As for the mandatory minimum percentage of food from family farming in school meals, it became mandatory in January 2010 (Brasil, 2009), contributing to sustainability, reducing the rural exodus, and increasing the supply of jobs with local development (Saraiva *et al.*,

2013). In this survey, 96% of the councilors verified the introduction of food from local family farming, a result higher than the data found by Ferigollo *et al.* (2017) in Rio Grande do Sul (71.2%), which stands out in the production of family farming and in the internal supply of food and consequently in the supply of food through family farming (Saraiva *et al.*, 2013). This result can be explained by the recognition and favoring of local agriculture by the implementing entity.

Encouraging family farming, as well as sustainability, can be achieved through partnerships. EMATER (Technical Assistance and Rural Extension Company of the State of Minas Gerais), for example, makes it possible to help include farmers when there is a successful articulation, given that they have knowledge of local production as well as farmers (Alves *et al.*, 2023).

Regarding school gardens and their impact on sustainability, Targino and Tabosa (2024) present them as one of the teaching strategies in Environmental Education that facilitates, through practical experience, a learning process centered on the active participation of students. This approach positions students prominently in the teaching-learning process, rather than as mere spectators of knowledge. The authors assert that the garden fosters awareness of the importance of developing sustainable agriculture and caring for the environment, as well as strengthening interpersonal interactions and a sense of responsibility. In light of this, it is important to emphasize the assertion made by Carniatto (2007) that all education is environmental. Therefore, it is essential that it is intentionally proposed as Education for the Environment, Education in the Environment, and Education about the Environment, providing a new way to perceive, live, confront, exist, and relate to the world. Within this educational process, it is crucial to implement actions that integrate Food and Nutritional Education with Environmental Education, involving the school community.

Another important factor cited as a promoter of sustainability is the need for actions aimed at reducing food waste. According to information from the United Nations (UN), approximately one-third of the food produced globally is not consumed by the population; this food is lost at some stage of the production chain or is wasted (Bedin; Faria, 2021). It is essential for the members of the CAE to understand their role in monitoring sustainability-promoting actions.

Finally, when asked about their intention to change the SFC's actions, the participating members reported questioning the nutritionist about actions aimed at sustainability and healthiness. This change is extremely important,

given that food waste must be measured and controlled in Food and Nutrition Units. This action is not just an ethical issue, but also an economic one with political and social repercussions, considering that Brazil is a country where hunger and poverty are classified as public health problems (Nonino-Borges, Rabito & Silva, 2006).

CONCLUSION

As a result of this work, it can be concluded that some of the participating municipal SFCs do not seem to carry out all of the duties laid down in Law 11947 of July 16, 2009, but they also have some difficulties in carrying out their activities. However, taking part in the educational activity seems to have helped raise participants' awareness of how to properly exercise their SFC. There was also a need to step up initiatives (courses, training) to help councilors develop their knowledge of the breadth and complexity of the subject of sustainability in school feeding, with a focus on improving the quality of life and well-being of producers, consumers, and the planet. ●

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