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ANALYSIS OF THE NATIONAL SCHOOL FOOD PROGRAM AND THE PROBLEMS FOR PURCHASING FAMILY FARMING PRODUCTS IN RIO GRANDE DO SUL

ANÁLISE DO PROGRAMA NACIONAL DE ALIMENTAÇÃO ESCOLAR E OS PROBLEMAS PARA A AQUISIÇÃO DE PRODUTOS DA AGRICULTURA FAMILIAR NO RIO GRANDE DO SUL

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Abstract

The objective of this study was to characterize and analyze the operationalization obstacles of the purchase from Family Farming to the National School Food Program (PNAE). It was analyzed 28 municipalities, with an acquisition percentage of less than 30%, from four regions of the state. Three questionnaires structured with closed questions and multiple-choice were elaborated and sent, one to the managers, one to EMATER technicians, and another one to the municipality's nutritionists. Also, a public call notices analysis of each municipality studied was performed. The results point to the lack of nutrition professionals as well as lack of knowledge on the part of municipalities regarding the governing legislation for the purchase from family farming for the PNAE (Law 11.947/2009). It was concluded that, despite the PNAE advances over the years, its operationalization at the level of the Executing Entities still needs improvements.

Keywords: School feeding. Public policy. Technical responsibility. Family farming.

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Resumo

O objetivo deste estudo foi caracterizar e analisar os entraves de operacionalização da compra da agricultura familiar para o Programa Nacional de Alimentação Escolar (PNAE) em municípios com percentual de aquisição inferior a 30% no estado do Rio Grande do Sul. Foram analisados 28 municípios gaúchos de quatro regiões do estado: Sul, Médio Alto Uruguai, Alto da Serra do Botucarái e Missões. Foram elaborados e enviados três questionários estruturados com perguntas fechadas e de múltipla escolha, sendo um direcionado aos gestores, um voltado aos técnicos do escritório municipal da Empresa de Assistência Técnica e Extensão Rural, e outro para o nutricionista responsável pela alimentação escolar. Além disso, foi realizada uma análise dos editais de chamada pública de cada município estudado. Dentre os principais resultados destacam-se a falta de profissionais compondo quadro técnico no setor de alimentação escolar e o desconhecimento por parte dos municípios de pontos fundamentais da legislação que rege a compra da agricultura familiar para o PNAE (Lei 11.947/2009). Concluiu-se que apesar dos avanços do PNAE ao longo dos anos em termos legais, sua operacionalização no nível das Entidades Executoras ainda precisa de aperfeiçoamentos.

Palavras-chave: Alimentação escolar. Política pública. Responsabilidade técnica. Agricultura familiar.

Introduction

The National School Feeding Program (Programa Nacional de Alimentação Escolar -PNAE) is widely recognized as a landmark for public food policies in Brazil (GRISA; SCHNEIDER, 2015), with at least three highlighted aspects confirming such importance. The first one is related to its long and uninterrupted history since the program creation, in the mid-1950s, counting more than six decades of existence. Second, the reached public characterizes the PNAE as a universal access program, attaining students from the public school system in the 5,570 municipalities of Brazil (TRICHES; SILVESTRI, 2018). The PNAE objectives are highly intersectoral and complementary, by jointly articulating issues related to food and nutrition sovereignty and security (SAN), regional development, boosting agricultural production, family farming, and food and nutrition education (EAN)(FORNAZIER; BELIK, 2015; TRICHES, 2015). Lastly, the progress and improvements made throughout the PNAE history, provide dynamism and adaptation to the Brazilian reality (TRICHES, 2015; VILLAR et al., 2013). For these and other characteristics, Franck et al. (2016) highlight the Program as one of the most comprehensive public policies in Brazil.

Regarding its improvements, in 1994 the PNAE had its first modification, changing how the public policy was implemented, which at that time was centralized at the federal level of the government and started to decentralized its execution, in the municipalities of the federation, called, from this moment on, as Executing Entity (EEx) of public policy. According to Triches (2015) e Franck et al. (2016), although this modification has minimized some distortions, such as supplier cartelization, high costs of food distribution throughout the territory, and inattention for regional food diversity, at the time, there were no explicit mechanisms in the Program to support regional development, family farming and healthy school nutrition.

It was from the 2009 amendment, by the institution of Law 11,947, that the PNAE new virtues were incremented and distinguished. Among other issues, Article 14 of that law established that at least 30% of the National Education Development Fund (FNDE) resources intended for school meals, should be applied to food kind purchased from family farming, priority being given to local family farmers, settled land farmers, traditional communities, organic or agroecological producers and formal farmer groups (BRASIL, 2009).

According to Maluf (2009), from that moment on, PNAE created an institutional link between school meals and family farming, as well as the food offered in schools became a powerful tool in promoting the reconnection between production and local consumption. Triches (2015), on the other hand, argues that, from 2009, the PNAE proposes to be a State instrument, both favoring the local acquisition of food kind, as well as being concerned with offering higher nutritional quality products, environmental and cultural quality to schoolchildren, via the preferential purchase of family farming products. Attention should be paid to the fact that, before 2009 changes, food kind acquisition was

mediated by the Bidding Law (Law 8.666 / 1993), which is guided by the principle of economy in public administration. After Law 11,947 / 2009 came into force, the purchase of family farming products could be made via a public call, which aims to pay the local market average price to the Program's offerers, without any price dispute or competition between suppliers.

Several studies have pointed out the PNAE importance in promoting local development, access to markets by family farmers, as well as its potential about increasing the availability of higher nutritional quality foods, and suitable for regional food culture (ESTEVAM; SALVARO; SANTOS, 2018; SOUSA et al., 2018; TRICHES, 2014). Besides, in the wake of the Brazilian experience with the PNAE, several countries, such as the United States, Paraguay, Japan, Thailand, Italy, Scotland, Ghana, and Nigeria, have developed similar initiatives aiming to bring food production and consumption closer to the school environment, via purchasing products from local farmers (SWENSSON, 2018; TRICHES; SILVESTRI, 2018).

Although the advances of the Program's last modification should be recognized and highlighted, Triches e Silvestri (2018) argue that, given the increased complexity for its execution, the model adopted since 2009 is still in the improvement phase, with old and new challenges imposing for the better operationalization of this public policy (BRATKOWSKI et al., 2018; ESTEVAM; SALVARO; SANTOS, 2018; SILVA; ROCHETT; COELHO DE SOUZA, 2018). On one hand, in the specific case of purchase of family farming products, many studies point to increased demand by executing entities in states such as Tocantins (SOUSA et al., 2018), Paraná, Rio Grande do Sul, Santa Catarina, Espírito Santo and Roraima (FRANCK et al., 2016; TRICHES; SILVESTRI, 2018). On the other hand, Triches e Silvestri (2018) describes, for example, failures in the public call notices of Paraná city halls, which, according to the authors, difficult the correct Program operation.

Concerning the Rio Grande do Sul state specifically, FNDE data show that, since the law enactment, there has been a gradual increase in investment in purchases from family farmers, which reached a maximum amount of 48.8 million reais in 2015, dropping to 43.5 million in 2016⁶ (FNDE, 2018). Concerning to municipalities that do not comply with legislation - with purchases lower than 30% of FNDE received funds - in 2011, 10% of the 496² municipalities in the Rio Grande do Sul had no investment in the purchase of family farm products, while another 38% had investments lower than the minimum 30% value. In the last five years, there has been a sharp drop in the number of municipalities that did not make any purchases, and, in 2016 only, eleven municipalities in the state (2%) did not buy products from family farming. On the other hand, from 2011 to 2016, stability in the percentage of municipalities that, although buying from family farming does not reach the minimum percentage established by Law 11.947/2009, is observed. Thus, while in 2011 about 38% of the state municipalities were in disagreement with the PNAE legislation, this percentage dropped to 33% in 2016, with a low variation in the number of municipalities in disagreement with the current legislation.

Given this situation, this work aims to characterize and analyze the obstacles to the purchase operationalization of family agriculture products to serve the PNAE in municipalities with an acquisition percentage below 30% in the state of Rio Grande do Sul. Therefore, in addition to this first section, the work will be divided into four more parts. Then, the methodological procedures supporting the selection of analyzed municipalities will be presented, as well as the analytical tools used to characterize the difficulties. The third section aims to present the municipalities regions previously selected, so that, in the subsequent section, the main results obtained are presented. Finally, the final considerations are made.

Methodological Procedures

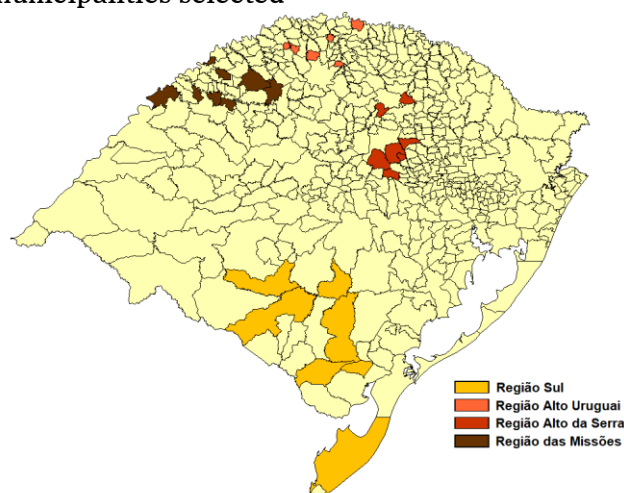
The present research is a quantitative and descriptive study, which used data from an action entitled "Regional workshops to survey the demand for school meals and the family agriculture production for the PNAE proper execution". The regional workshops, held in 2018, were part of an extension project from the Collaborating Center on Food and Nutrition of School children at the Federal University of Rio Grande do Sul (CECANE UFRGS).

The study included 28 municipalities in the Rio Grande do Sul state, selected according to the following criteria: 1) municipalities not reaching the family agriculture purchase of at least 30%

⁶ In 2016, R\$ 44 million was invested in the purchase from family farming, a figure close to the R \$ 43.6 million invested in 2014 (FNDE, 2018).

in 2014, 2015, and 2016 years; 2) municipalities not achieving the at least 30% purchase in 2016 and 2015 or 2014; 3) municipalities not achieving the at least 30% purchase in 2016; 4) municipalities not achieving the at least 30% purchase in 2015 or 2014. Data on the percentage of acquisition of family farming products were obtained from the municipalities' accountability, which was analyzed and published on the FNDE website (FNDE, 2018). Based on the criteria described above, to achieve the objective of diagnosing the difficulties faced by the Executing Entities of the PNAE, municipalities from four regions of the state were selected, thus guaranteeing regional representativeness of the situations. In this sense, seven municipalities in the Southern Region², six municipalities in the Médio Alto Uruguay³ Region, seven municipalities in the Alto da Serra do Botucaraí Region⁴, and eight other municipalities in the Missões Region⁵ were selected, totaling 28 municipalities. Figure 1 shows the location of classified municipalities in the four regions.

Figure 1: Regions with municipalities selected



Source: Prepared by the authors via TabWin (2018).

For data collection, three structured questionnaires with closed and multiple-choice questions were elaborated in Google Forms®, one directed to the managers (Secretary of Education), one directed to the technicians of the municipal office of the Technical Assistance and Extension Company (EMATER), and another for the nutritionist responsible for school meals. The links for the questionnaires accessing and filling were sent by e-mail, between April and June, with four thematic axes of questions. Questions sent to the respective respondents are summarized in Table 1.

Table 1: Questions sent to managers, nutritionists, and representatives of the local Emater, classified by the four thematic axes

Thematic axis	Question	Respondents	
(I) PNAE execution	1. A nutritionist is assuming the PNAE technical responsibility?	Nutritionist	
	2. How many nutritionists are employed in the school feeding sector, composing the Technical Framework (TF)?		
	3. The municipality complements the resources from the FNDE for school meals with its own resources?	Manager	
(II) Family Farming purchase	4. In the process of menus preparation, the nutritionist had access to the local agricultural mapping?	Nutritionist	
	5. It has already occurred the case that there is no proposal (sales project) for a specific product (s) contemplated in the shopping list?		
	6. The nutritionist monitors the purchase process of family farming products (Public Call Notice or bidding)?		
	7. Does articulation meetings take place in the municipality between EEx and local family farmers to discuss these products purchase?		
	7.1 If so, what is the periodicity of these meetings?		
	8. What was the percentage of family farming purchases reached in the last year?	Manager	
	9. Does the municipality is aware of the FNDE Resolution nº 04 of April 2, 2015, and follows it in the public procurement notices for food purchase?		
	10. Select from the options below the way of defining the prices of the family farmer products to be purchased:		
	11. Does the municipality have a Municipal Inspection Service (SIM) or a State Inspection Service (SIE)?	EMATER	
	12. Was Emater aware of the PNAE purchase percentage?		
	13. Does the Executing Entity (EEx) contact Emater to make the purchase of family agriculture operational and viable?		
	(III) Operational difficulty	14. Is it impossible for Family Farmers to issue the tax document?	Nutritionist
		15. Is there a lack of regular and constant supply of food kind, respecting the seasonality of the products, by Family Farmers?	
16. The product hygienic-sanitary conditions are inadequate, that is, they disagree with the provisions of art. 33 of Resolution CD / FNDE No. 26/2013?			
17. Is there any difficulty to do the price research?			
18. Is there any difficulty in preparing the Public Call notice?			
19. Is there any difficulty to qualify and select sales projects?			
20. Is it difficult to establish the purchase contract?			
21. Is there any difficulty in preparing the sales project by farmers?		Emater	
22. Are there any difficulties in finding farmers interested in selling to PNAE?			
(IV) Opinion	23. In your opinion, what is the importance of family farming for your municipality development?	All	
	24. In your opinion, what is the PNAE importance for the strengthening and development of Family Farming in your municipality?		
	25. In your opinion, what is the farmers' degree of interest in your municipality to sell for school meals?		
	26. In your opinion, what percentage of purchases of food for school meals, coming from family farming, that your municipality should and/or have the potential to achieve?		

Source: Elaborated by the authors (2018).

From the 84 questionnaires sent, there was a 98.8% return, so that only one questionnaire, intended for Emater, was not answered. The non-return, in this case, was due to the absence of a municipal Emater office in the municipality. In addition to the 27 questions covering the four thematic axes, an analysis of the public calls for the family farming purchase, which were sent by the 28 Executing Entities, was also performed. The public call notices analysis sought to ascertain

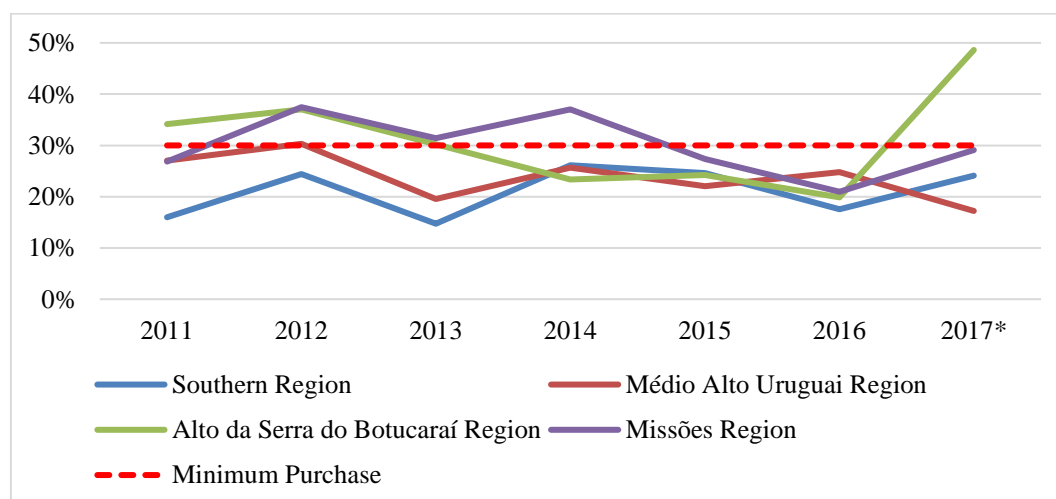
its conformity with FNDE Resolution No. 04 of April 2, 2015, which regulates the public call process for purchase from family farming.

Lastly, it should be noted that secondary data were collected on platforms from the Statistical Economics Foundation (FEE) and the Brazilian Institute of Geography and Statistics (IBGE), for regional characterization. Such data referred to the municipalities population estimate, agriculture contribution in the Gross Value Added of the municipality, the number of family farming establishments, number of Declarations of Aptitude to Pronaf (DAPs), and calculation of the agricultural production diversification index (IDPA) following the methodology proposed by Waquil e Filippi (2008)⁷.

Regional Characterization: family farming purchase, demographic and productive aspects

This section aims to characterize the four regions by using secondary data from the selected municipalities. Thus, it is initially necessary to present the Executing Entities' performance in the purchase of family farming products. Although in this study, the municipalities' choice favored the number of purchases made in 2014, 2015, and 2016, figure 2 concatenates the average investment in the purchase of family farming products between 2011 and 2017. Based on this, it can be analyzed that the average value remained below 30% for most years in all regions, demonstrating chronic difficulties in purchasing from family farming in most of the selected municipalities. As can also be seen in figure 2, the average purchase for 2017 had a significant improvement in the Alto da Serra do Botucaraí region, however, it must be considered that the data for this year, in particular, are still preliminary and thus liable to change until official disclosure by FNDE.

Figure 2: Average of purchase from family farming, by selected municipalities, classified by region



Source: Prepared by the authors based on data extracted from the FNDE (2018). *Preliminary data.

Considering the official data from the last three years, it is noted that the Southern region is the one gathering the largest number of municipalities with difficulties in purchasing family farming products, and of the seven municipalities analyzed here, five met selection criterion 1 - having a purchase below 30% from 2014 to 2016. The other two municipalities in this region, on the other hand, met criterion 2 - with a purchase lower than that stipulated by the law in 2016 and 2014 or 2015. In the Médio Alto Uruguay region, in turn, four of the six municipalities met criterion 1, while the Alto do Serra do Botucaraí and Missões regions had three municipalities selected by this first criterion. As seen in table 1, from 28 municipalities, 54% were selected by the first criterion, while another 21% met criterion 2, thus demonstrating that the problems of purchasing from family farming in most of the studied municipalities are not restricted only to financial problems and are restricted to a single year.

⁷ The calculation was made following the equation: $IDPA = 1 - \sum Si = 1 - Si^2$

For this study, the participation (S_i) of 37 plant origin products and 5 animal origin products, measured in tons, was taken. The sum of the squared holdings corresponds to the production concentration index, and can take the maximum value of 1, thus representing the extreme case in which only one activity exists. Conversely, the diversification index is understood as a complement to the concentration index, the higher the concentration index, the lower the diversification index and vice versa.

Table 1: Number and percentage of municipalities according to the selection criteria and region of origin

Criteria	Region				Municipalities Percentage
	Southern Region	Médio Alto Uruguai Region	Alto da Serra do Botucaraí Region	Missões Region	
Criterion 1	5	4	3	3	53,57%
Criterion 2	2	0	2	2	21,43%
Criterion 3	0	0	1	3	14,29%
Criterion 4	0	2	1	0	10,71%

Source: Prepared by the authors based on research data (2018).

Given the agriculture diversity in the Rio Grande do Sul state (MIGUEL, 2018; SILVA NETO; OLIVEIRA, 2008), some demographic and productive indicators of the regions covered by the selected municipalities are worth considering. In this sense, as shown in table 2, except for the Southern region, most municipalities have a large population contingent residing in rural areas. In terms of productive aspects, it can be observed that agriculture is an important economic activity, with a more significant contribution in the municipalities of the Médio Alto Uruguay region. Concerning the importance of family farming, all selected municipalities hold more than half of the agricultural establishments classified as family, with the regions located in the northern half of the state being those with a predominance of family establishments. However, when analyzing the relationship between the number of Declarations of Aptitude to Pronaf (DAPs) and family establishments, it is the Southern region that stands out with the highest number of DAPs available. Of note, DAP is the document enabling family farmers to sell to PNAE, being essential for those interested in accessing this institutional market.

Table 2: Demographic and productive aspects of the studied municipalities, classified by region of origin

Variable	Region			
	Southern Region	Médio Alto Uruguai Region	Alto da Serra do Botucaraí Region	Missões Region
Average percentage of rural population 1	29,10%	59,02%	61,81%	61,93%
Average percentage of agriculture contribution to VAB 2	35,88%	45,57%	38,45%	38,57%
Average percentage of family farming establishments 3	68,10%	91,36%	86,80%	86,34%
Average ratio between Number of DAPs and Family Farming Establishments 4	0,84	0,77	0,71	0,69
Average of the Agricultural Production Diversification Index 2	0,59	0,73	0,66	0,69

Source: Elaborated by the authors.

¹ Population estimate (FEE, 2017)

²(FEE, 2017)

³Agricultural Census (IBGE, 2006)

⁴MAPA (2014)

Finally, when it comes to agricultural diversification, while the Médio Alto Uruguay region has a larger agricultural portfolio, the Southern region is characterized by production concentrated in a smaller number of products, which tends to impact the diversity of the items that can be offered to the PNAE. Following this general characterization of the regions, based on the indicators of the municipalities selected in this study, we proceed to the analysis of the main data collected.

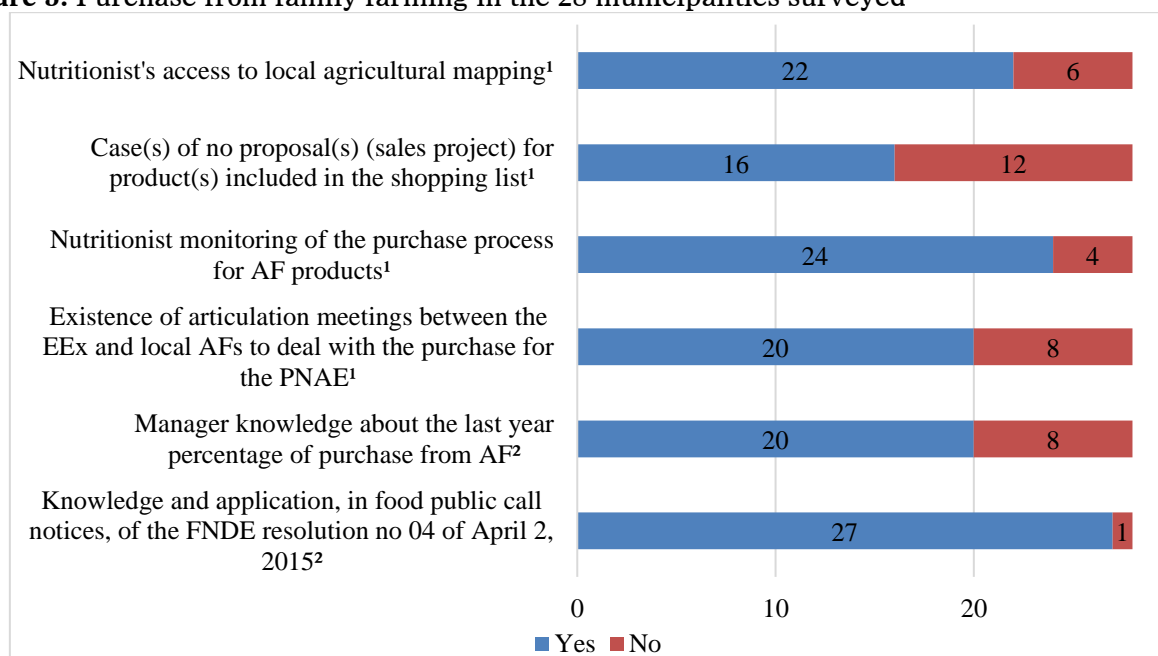
Results presentation and discussions

This section presents and discusses, by thematic axis, the main results obtained from the questionnaires sent to nutritionists, managers, and representatives of the municipal Emater. Results of the public call notices analysis of the 28 municipalities are also presented and discussed.

As for “Thematic Axis I”, which addressed the PNAE execution aspects, it could be seen that all municipalities have at least one nutritionist assuming the Program Technical Responsibility, according to the legislation. However, when analyzing the Technical Staff composition of the school feeding sector, half of the municipalities (14) do not meet the Federal Nutrition Council (CFN) Resolution No. 465 of August 23, 2010 (CFN, 2010), which is the reference for calculating the number of nutritionists for PNAE. The greatest professional deficit occurs in the Southern region municipalities, and in none of the seven municipalities, there is an adequate number of nutritionists. In contrast, all six municipalities in the Médio Alto Uruguay have an adequate number of workers. It is important to point out that this deficit can negatively affect the purchase from family farming since insufficient technical staff tends to make it difficult for the nutritionist to follow the purchasing process. In agreement, Bratkowski et al. (2018) highlight that the inadequacy of nutritionist numbers to carry out the PNAE is one of the most frequent problems in the Rio Grande do Sul municipalities. Still regarding the Program execution, according to the managers, most of the municipalities (26 municipalities) complement the FNDE resources with their resources, as recommended by legislation (BRASIL, 2009).

Regarding the purchase from family farming, which characterizes Thematic Axis II, figure 3 presents the results obtained from the questionnaires sent to nutritionists and managers. Most nutritionists highlighted having access to the local agricultural mapping, following the family farming purchasing process, and affirming that there are articulation meetings between representatives of the Executing Entity and farmers to deal with the purchase of food kind for school meals. It is worth noting that such procedures are adequate and recommended by the FNDE (2016) so that there is a good operationalization of the purchase from family farming, and they must be carried out before the public call notice opening so that precisely problems of non-adherence between demanded items and locally produced products are avoided. However, 43% of nutritionists highlighted cases of sales proposals absence for items contemplated in public call notices, so that failures in articulation and/or mapping of local agricultural products may be occurring. In this sense, a complementary data on the articulation degree between the actors reinforces this hypothesis, since of the 20 municipalities affirming to hold articulation meetings, only 4 highlighted that they occur with some type of regularity.

Figure 3: Purchase from family farming in the 28 municipalities surveyed



Source: Elaborated by the authors based on researched data (2019)

¹ Nutritionist questionnaire

² Manager questionnaire

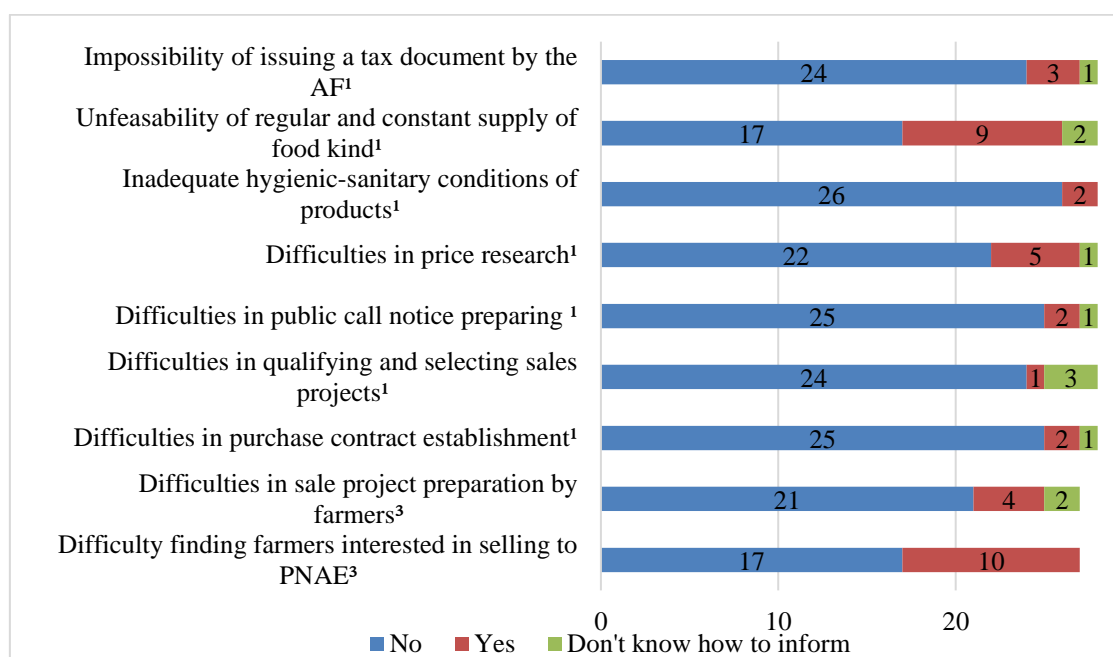
Analyzing public calls and purchases from family farms in Paraná, Triches e Silvestri (2018) demonstrate a lack of consistency between the quantity of food ordered and the actually purchased quantity, indicating that such failure tends to have a negative impact on the suppliers' organization.

Baccarin, et al. (2011), analyzing public calls in São Paulo state, found non-correspondence between requested foods and those produced regionally. Based on this, it can be assumed that the lack of articulation and knowledge of local production tends to produce purchase notices with little adherence between produced and required food kind, negatively affecting the availability of farmers interested in supplying the products, and also generating items shortages and frustration with the planned purchase from family farming.

In regional terms, the highest frequency of negative responses regarding access to the local agricultural production mapping occurred in the Southern region (4 municipalities), precisely the region in which 100% of surveyed municipalities highlighted cases of sales projects absence for food kind required in public call notices, pointing out the importance of performing agricultural mapping before the purchase notice publication. Regarding the managers, in 20 municipalities, knowledge about the purchase from family farming percentage was demonstrated, attesting, in a way, knowledge about the PNAE operationalization in the municipality. In the same vein, the vast majority said they knew and applied Resolution No. 4 of 2015 of the FNDE in public call notices, however, this response is contradicted by the public call notices analysis, as will be seen below.

Regarding the form of setting prices for family farming products, to be used in the public call, nine managers highlighted consulting prices at family farmers fairs or cooperatives, and 11 said they used both farmers' fairs and conventional markets. In seven municipalities, price consultation is carried out only in conventional markets, and a manager said he used the lowest available market price. Analysis of such results allows us to infer that only the first nine municipalities follow the FNDE Resolution No. 04/2015 recommendations, which informs that the average acquisition price formation must prioritize the family farming markets (BRASIL, 2015; FNDE, 2016). Although municipalities that somehow use conventional markets to consult prices do not disagree with the legislation, the use of conventional markets prices tends to cause less interest from farmers to participate in the Program, also de-characterizing some of the PNAE virtues, such as the one related to the local production valorization (BARBOSA et al., 2018; MALINA, 2012). Finally, it should be noted that the municipality claiming to use the lowest price, mischaracterized the public call purchase process.

Regarding the responses from EMATER representatives on the purchase from family farming, from 27 municipalities having an office of the technical assistance company, nine reported not having any health inspection service. As argued by Triches e Schneider(2010), one of the difficulties faced by the National School Meals Program is related to sanitary and quality requirements, so that those municipalities not having some type of municipal inspection service (SIM) end up making the supply of agro-industrialized products produced by local agriculture unfeasible. Regionally, while in the Médio Alto Uruguay only two municipalities have an inspection service, in Missões only one municipality does not have this type of service. When asked if Emater participates in the joint ventures for the purchase from family farming, most extension workers (24) answered positively to this question, however, 19 Emater professionals were the ones who correctly informed the amount of last year family farming acquisition carried out by the Executing Entity. The PNAE operationalizing difficulties, which cover the third Thematic Axis, are shown in figure 4. According to nutritionists, one of the main difficulties relates to the impossibility of regular and constant supply of food kind by family farmers. This problem is concentrated in the Southern and Alto da Serra do Botucaraí regions, with four and three cases, respectively, of not meeting the food demand. In the Tocantins, when consulting farmers, they highlighted that one of the PNAE operationalization obstacles was related to the food kind supply dynamics (BARBOSA et al., 2018). In this sense, it is worth noting that, for the supply logistics best functioning, Resolution No. 26/2013, in its article 29, started to indicate that the expenses with deliveries, logistics, and packaging, must be foreseen when defining the prices for acquisition from family farming (BRASIL, 2013) so that an inadequate price setting can create obstacles to the food supply, or even interrupt this process. Corroborating this fact, the price survey was treated as an obstacle in five municipalities, mainly located in the Southern region. Positively, in turn, indicated cases of inadequate food hygienic-sanitary conditions and difficulty in qualifying sale projects were little according to nutritionists. Regarding the answers provided by EMATER, the difficulties related to the existence of farmers interested in selling to PNAE are noteworthy. Unlike other diagnosed problems, there is no regional concentration of this difficulty, and in all regions, at least two municipalities highlighted this type of setback.

Figure 4: The PNAE operationalizing difficulties

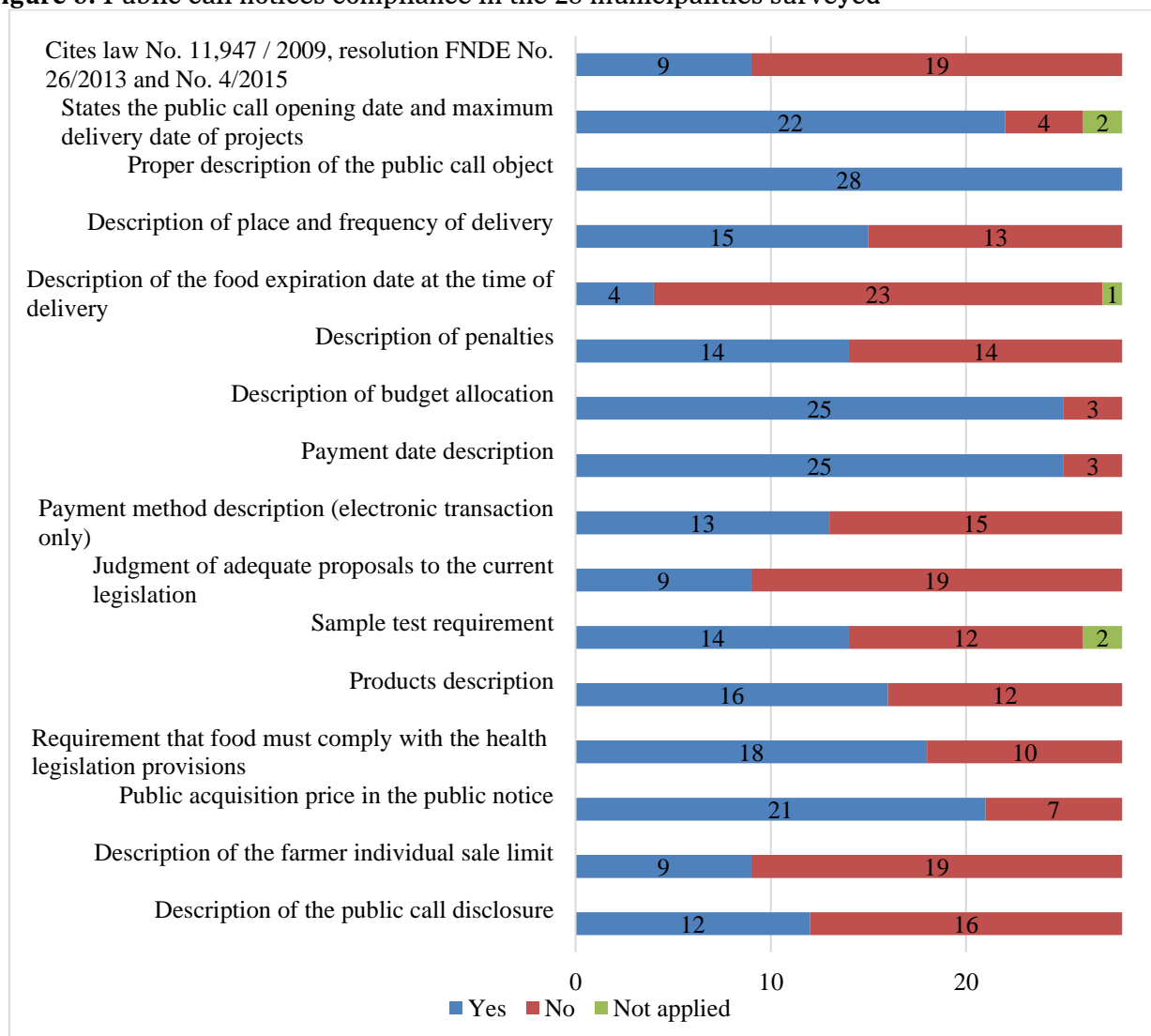
Source: elaborated by the authors based on research data (2019)

¹Nutritionist questionnaire

³Emater questionnaire

Taking into account that purchasing from family farming should preferably be ruled by public calls, and errors in it tend to cause losses in the purchase of family farming (TRICHES; SILVESTRI, 2018), it is interesting to analyze the results on public calls adequacy from the 28 Executing Entities in accordance with Resolution No. 04 of April 2, 2015, of the FNDE. Considering the main points of that resolution, the questionnaire analysis used 16 questions that sought to certify documents compliance or not. As can be seen in figure 5, the first investigation point contradicts most of the answers provided by managers about the use and application of Resolution 04/2015 in the public calls, since only nine documents mentioned nominally that they were governed by the PNAE resolutions and law. Although less frequently, four municipalities had serious errors in their public calls, since they did not present its opening date or even the maximum date for proposals submission by farmers. Geographically, these errors are distributed in one municipality in each region analyzed. One point covered by all notices was related to the proper description of the public call object, that is, all EEx highlighted that the public call would serve only to purchase food to PNAE.

The description of the delivery place of food kind was an erratic point in most public calls since 15 notices did not inform where and how often the food provided by family farmers should be delivered. The lack of this information tends to be a detrimental factor for executing the purchase from family farming, as according to Guilhoto et al. (2006), the distribution logistics of agricultural production is not simple, and therefore requires procedures with a high level of organization to avoid the activity failure. In the same way, Baccarin, et al. (2011) highlight that the farmers' suitability and adherence to the institutional market require the presence of public calls presenting schedules describing both periodicity and delivery place so that the farmer is aware of his distribution possibility of the food kind before enabling their sales project, allowing producers time to plan their activities (TRICHES; SILVESTRI, 2018). When analyzing public calls in Paraná municipalities, the same authors verified a high percentage of public calls not informing the delivery location and frequency (93%). However, in a survey conducted in São Paulo, Baccarin, et al. (2011), found that only 16.6% of public calls analyzed did not define the delivery frequency. It should be noted that 100% of the municipalities in Alto da Serra do Botucaraí did not inform in their public notices the delivery location and frequency.

Figure 5: Public call notices compliance in the 28 municipalities surveyed

Source: Elaborated by the authors according to research data (2019).

Most of the public notices (23) did not inform the expiration period of food kinds to be delivered, however, this point must be put into perspective when considering that most of the food kind from family farming are fresh products. As recommended by Resolution 04/2015, half of the EEx reported penalties to suppliers in case of withdrawal and/or non-delivery of products. In the same way, 25 municipalities mention in their public notices the budget allocation of the resource invested in school meals, in addition to describing the payment date. However, regarding payments, most municipalities did not specify in the public notice how it would be performed, which, as specified by law, must be done only via electronic movement (BRASIL, 2015; FNDE, 2016).

How the proposals are judged also stands out as a negative point in most municipalities. As can be seen in figure 5, only nine municipalities judge the proposals adequately. Such an error, both de-characterizes the public call process and also harms local suppliers, traditional farmers, agroecological organics, and those linked to cooperatives or associations. Regionally, the great majority of proposal judgment errors are in Missões, where only one municipality had an appropriate selection mode. Another important point is the test-sample requirement, which was described in 14 notices, while the need to comply with sanitary legislation was described in 18 documents. It was also found that in 12 public call notices there was no adequate description of the products to be purchased. In this regard, in Goiás, one of the PNAE operationalization obstacles, from the farmers' perspective, is directly related to the inadequate description of the products demanded by the Executing Entities (BARBOSA et al., 2018). The description is important since it allows a greater characterization and specification of the products to be purchased by detailing its information. It is

reinforced that this clarification directly avoids the inappropriate product supply or with products not meeting the requirements described in the notice.

Seven municipalities, distributed among the four regions, did not contain in their public calls the food acquisition price, disqualifying and mischaracterizing the purchase by a public call. This information is of fundamental importance since its absence prevents the farmer from evaluating the financial advantages of selling to the PNAE. For Triches e Silvestri (2018), the non-publication of the price to be paid by the food kind reduces the farmers' interest in participating in the PNAE. Analyzing 114 public calls from 52 municipalities in the Rio Grande do Sul, Ferigollo et al. (2017) point out that 40% of the public calls did not contain the product's price. The description of the individual commercialization limit of 20 thousand reais, per DAP, per year, was only presented in nine public call notices, and in 16 municipalities there was no description of the place where the public call was disclosed in the document. For the PNAE, the public call disclosure is considered essential, in order to have a transparent and fair purchase process from family farming.

Lastly, regarding the fourth axis of questions covered by the questionnaires, when asked about the family farming importance for the municipality development, most respondents pointed out that it is very important (83.13%), or important (12, 05%). Regionally, the greatest importance attributed was in the Missões (95.65%), while the lowest percentages occurred in the Southern and Alto da Serra do Botucaraí regions (79%). Regarding the PNAE importance for the family farming strengthening in the municipalities studied, more than 80% of respondents from the Southern, Missions and Médio Alto Uruguay regions, attributed a lot of importance, while in the Alto da Serra do Botucaraí region, those who attributed much importance reached 66% of respondents. Table 3 shows the opinion on farmers' degree of interest to trade for PNAE and the purchase percentage for PNAE that can be potentially achieved by EEx.

Table 3: Opinion on the level of interest of local farmers, and the percentage of purchase potentially attainable

Level of local farmers interest in selling to PNAE				
Respondentes	No interest	Low interest	Interest	High interest
Nutricionists ¹	10,71%	17,86%	42,86%	28,57%
Managers ²	7,14%	25,00%	35,71%	32,14%
Emater ³	0,00%	18,52%	44,44%	37,04%
All ⁴	6,02%	20,48%	40,96%	32,53%
Região Sul ⁴	4,76%	38,10%	19,05%	38,10%
Região Médio Alto Uruguai ⁴	0,00%	11,11%	72,22%	16,67%
Região Alto da Serra ⁴	9,52%	28,57%	33,33%	28,57%
Região Missões ⁴	8,70%	4,35%	43,48%	43,48%

Purchase percentage of food kind from AF to PNAE potentially attainable				
Respondentes	1% a 30%	31% a 50%	51% a 75%	Mais que 75 %
Nutricionists ¹	21,43%	67,86%	10,71%	0,00%
Managers ²	32,14%	50,00%	14,29%	3,57%
Emater ³	11,11%	51,85%	22,22%	14,81%
All ⁴	21,69%	56,63%	15,66%	6,02%
Southern Region ⁴	19,05%	52,38%	14,29%	14,29%
Alto médio Uruguai Region ⁴	38,89%	55,56%	5,56%	0,00%
Alto da Serra Region ⁴	23,81%	47,62%	23,81%	4,76%
Missões Region ⁴	8,70%	69,57%	17,39%	4,35%

Source: Elaborated by the authors based on research data (2019)

¹Nutritionist questionnaire

²Managers questionnaire

³Emater questionnaire

⁴All three questionnaires

It is noteworthy the percentages attributed to “no interest” or “low interest” of farmers for marketing in the PNAE in the Southern and Alto da Serra do Botucaraí regions are high, which adds up to percentages close to 40% of the answers. Anyway, except for the Southern region, such disinterest may be related both to the lower percentage of family farming establishments and also to the low rate of agricultural diversification. Regarding the opinion on the potentially attainable purchasing potential, most respondents in all regions say it is possible to exceed the minimum purchase from family farming, with respondents from the Southern and Missões regions being the greatest enthusiasts for reaching percentages exceeding the minimum limit. However, it is curious that in the Médio Alto Uruguay region, almost 40% of the interviewees, believe that the attainable percentage is below the minimum purchase limit stipulated by law, however, such opinion may be related to the lack of inspection service for higher value-added products. When considering that the PNAE is a complex program presenting several specificities and involving several actors (TRICHES; KILIAN, 2016), their opinion and motivation are of fundamental importance in this public policy execution.

Final considerations

This study was concerned with characterizing and analyzing the operationalizing difficulties in the purchase from family agriculture for PNAE in municipalities with an acquisition percentage below 30% in the Rio Grande do Sul state. Based on the data collected and analyzed, some reflections arise. Although it must be ratified that the operational difficulties causes are not restricted to one or another variable, the effort to present the main problems identified, as well as their interrelations, is valid. It is verified, in general, that the lack of professionals composing technical staff in the school feeding sector is common in the analyzed municipalities, and such a deficit of professionals tends to weaken, or at least hinder, the possibility of mapping the local family farming products, as well as the development of links with the actors involved in the PNAE. Taken together, these weaknesses seem to justify to some extent, the relatively high rate of frustration cases in the purchase of food kind contemplated in the public call notices, which also ends up reducing the planned purchase, by the Executing Entities, from family farming.

In the same direction, it is plausible to argue that the ignorance and non-application by the Executing Entities of legislation fundamental points governing the PNAE - mainly those highlighted in Resolution 04/2015 - as way of setting prices for public calls, prices publicization in the public notice, an adequate description of the periodicity and delivery places, are aspects contributing to diminishing the farmers' interest in selling to the PNAE, causing, after all, difficulties in making the minimum purchase. Likewise, the apparent failure to publicize the public call notice itself and the mistake made by some municipalities in judging the proposals, also tend to collaborate with the increased difficulty of finding farmers interested in serving this institutional market. Thus, it can be said that both the insufficiency in human resources for the policy operationalization, as well as the lack of knowledge of the legislation important points, are central aspects of the difficulties of buying from family farming in the municipalities analyzed.

In regional terms, in the Southern region are located the municipalities with the greatest difficulties in achieving the minimum purchase stipulated, as well as those with the greatest shortage of nutrition professionals. The public call notices in the Alto da Serra do Botucaraí and Missões regions present serious problems. In turn, the Médio Alto Uruguay region is the one that seems to have the most difficulty with the lack of health inspection services for processed products. Finally, it should be noted that despite the PNAE advances made over the years in terms of the law, its operation at the level of Executing Entities still needs improvement. However, even amid difficulties, the hegemonic opinion of the actors involved in this research is that the PNAE is a public policy of fundamental importance, which contributes to the family farming strengthening and local development, and that strategies need to be thought and developed to improve the quality of the processes involving institutional purchasing, especially concerning family farming, which is not only an economic but social breakthrough, and focused on health in the school environment.

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