

# Purchasing food produced by family farmers through PNAE in the municipality of Alegre, Espírito Santo State, Brazil

## A aquisição de alimentos da agricultura familiar pelo PNAE no município de Alegre-ES

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### Abstract

This paper discusses the National School Lunch Program (PNAE) in the municipality of Alegre, Espírito Santo State, Brazil, in order to characterize the process of buying food from family farmers to serve this market, focusing on the evolution of this process from 2013 to 2015. The sources of the data used were as follows: Calls for Submissions and the respective reports, available on the website of The City Council of Alegre; sales projects of rural associations provided by the Rural Workers' Union; and FNDE (National Fund for Education Development) documents available on their website. It was found that the compulsory minimum purchase percentage was not met in 2013 (it was 15.52%), but it amounted to 116.68% of FNDE's fund transfer in 2014. The number of farmers of Alegre participating of PNAE grew 2.8 times, from 2013 to 2015, reaching 39 farmers. There was a 54% increase in food diversity, from 22 in 2013 to 34 different foods purchased in 2015. It was concluded that the PNAE of Alegre, even in view of the challenges presented, is fulfilling its role to linking family agriculture with school lunch, helping to promote sustainable rural development while bringing food and nutrition security to children and adolescents who study in public schools.

**Keywords:** School Lunch. Agriculture. Marketing. Food and Nutrition Security.

### Resumo

Este artigo aborda o Programa Nacional de Alimentação Escolar (PNAE) no município de Alegre-ES, com o objetivo de caracterizar

o processo de compra de alimentos da agricultura familiar para atender a esse mercado, enfocando a evolução desse processo no período de 2013 a 2015. As fontes de dados utilizadas foram as seguintes: os editais das Chamadas Públicas e seus respectivos relatórios, disponíveis no site da prefeitura de Alegre; os projetos de venda das associações rurais disponibilizados pelo Sindicato dos Trabalhadores Rurais; e documentos do FNDE, disponíveis em seu site. Verificou-se que o percentual mínimo de compra obrigatória não foi cumprido no ano de 2013, ficando em 15,52%, mas chegou a 116,68% do repasse do FNDE, em 2014. O número de agricultores de Alegre participantes do programa cresceu 2,8 vezes, de 2013 para 2015, chegando a 39 agricultores. Quanto à diversidade de alimentos, houve um aumento da ordem de 54%, passando de 22, em 2013, para 34 diferentes alimentos adquiridos em 2015. Concluiu-se que o PNAE de Alegre, mesmo diante dos desafios colocados, cumpre o seu papel de interligar a agricultura familiar à alimentação escolar, ajudando a promover o desenvolvimento rural sustentável e, ao mesmo tempo, trazendo segurança alimentar e nutricional às crianças e adolescentes que estudam nas escolas municipais.

**Palavras-chave:** Alimentação Escolar. Agricultura. Comércio. Segurança Alimentar e Nutricional.

## Introduction

Brazilian government National School Lunch Program (*Programa Nacional de Alimentação Escolar* – PNAE, in the Portuguese abbreviation) was created in 1955 under the name “School Lunch Campaign.” From 1955 to 1993, PNAE was a centralized program and the whole menu and foodstuffs acquisition would be carried out by the Brazilian Ministry of Education through a bidding procedure. Only from 1994, with Law no. 8,913, decentralization of resources began, with transfers to the state and municipal departments of education to take over the entire process.<sup>1</sup>

In 2009, PNAE underwent another major change. Federal Law no. 11,947 has established that at least 30% of financial resources transferred by Brazilian government National Fund for Education Development (*Fundo Nacional de Desenvolvimento da Educação*; FNDE, in the Portuguese

abbreviation) to support school lunch to municipal or state education departments should be destined to the acquisition of food from “family farming or rural family enterprises.”<sup>a2</sup>

Thus, according to the new guidelines established in 2009, the intersection between school lunch and family farming can promote a major transformation in the Brazilian social reality by allowing diversified and seasonal food with regional ties. And even organic foods produced by family farmers can be daily consumed by students of the public education system throughout Brazil, comprising a varied menu that respects the regional culture and healthy eating habits.<sup>2</sup>

PNAE is important because it allows to reconcile the need to guarantee food and nutrition security for school children and adolescents through the creation of a new marketing channel for family farming at local levels, generating work and income in the countryside and helping to boost local economies.<sup>3-5</sup> Similar programs also exist in other countries, such as in Scotland and Italy, which have been studied by Sonnino et al.<sup>6</sup>

This new marketing channel corresponds to one of the forms of family farmers’ access to markets described by Wilkinson<sup>7</sup> such as: direct access (highlighting local/informal markets), access through intermediary traders, integration with agro–industrial establishments and access through government procurement, which is the case of PNAE. Also different are the commodity market, where relations are impersonal and mediated only by price, and “new markets,” characterized by different loyalty processes based on the specific identity of products and productive processes. Such new markets include niche, organic, handcraft, solidarity and institutional specialties.<sup>7</sup>

In 2010, the first year of compulsory acquisition from family farming by PNAE, 47.4% of Brazilian municipalities carried out this type of acquisition and the purchase percentage was, on average, 22.7% of the transfer/FNDE, below the minimum required (30%) by the 2009 Law. The southern region of the country stands out, which presented the highest percentage (71.3%) of municipalities acquiring, against the central-west region, which presented only 35.3%.<sup>8</sup>

In the Brazilian state of Espírito Santo, acquisitions from family agriculture began in 2010. Among studies already carried out on this topic in Espírito Santo, the one by Alves<sup>9</sup> stands out, which discusses PNAE as an intervention to recreate the state peasant agriculture, and the one by Aoki et al.<sup>10</sup> concerning the insertion of family farmers in the municipality of Pedro Canário in PNAE.

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a Brazilian federal Law no. 11,326/2006 considers that “family farmers or rural family entrepreneurs” are those who practice economic activities in rural areas and have an area of no more than four fiscal modules, predominantly employing their families and managing their establishment or enterprise with their family. In addition, some minimum percentage of the family income should originate from economic activities in their establishment or enterprise, as defined by Brazilian Government Executive Branch, according to Law no. 12,512/2011.

In 2014, FNDE transferred to municipal departments and the Espírito Santo Education State Department a total of BRL 61,388,808.40<sup>b</sup> to fund public school lunch. Considering that governments have applied at least the minimum required by law in purchases from family agriculture, a total of BRL 18,416,642.00 has been obtained, which would be helping to boost the rural economy of Espírito Santo.

On the other hand, the 2006 Census of Agriculture revealed that in this state family establishments represented 80% of the total but out of every ten people working in the field six were in family agriculture.<sup>11</sup> This demonstrates the social relevance of family agriculture in the country state context, which justifies carrying out government programs such as PNAE, which may contribute to reinforce this socioeconomic category, as has already been advocated in other studies.<sup>3,12,13</sup>

In the Brazilian municipality of Alegre, located in the state of Espírito Santo, the acquisition of food from family farming by PNAE has been performed since 2010. But it was from 2014 that this process grew in diversity and quantity of food, in addition to expanding the insertion of family farmers in this institutional market,<sup>14</sup> whose magnitude had not yet been studied.

Therefore, the present article seeks to characterize the insertion of family agriculture in school lunches in the municipality of Alegre, ES, in the 2013-2015 period, describing the food demand and supply behavior from family agriculture, the number of farmers and associations involved, as well as the management process by PNAE in relation to family farm purchases. It is hoped, therefore, to contribute to giving greater visibility to the importance of this governmental program for family agriculture, the school community and society as a whole.

## Methodology

The present study is configured as a descriptive documental research. It has been developed in the Brazilian municipality of Alegre, located in southeastern Espírito Santo state and in Território do Caparaó, which has an area of 772 km<sup>2</sup> and an estimated population for 2015 of 32,205 inhabitants.<sup>15</sup>

The municipal education system served by PNAE consisted, in 2015, of 30 schools with a total of 2,297 students enrolled.<sup>16</sup> And family farming establishments, according to the 2006 Census of Agriculture, 79.3% of the total, occupying 42.6% of the agricultural area.<sup>11</sup>

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b Data from FNDE (available on: <http://www.fnde.gov.br/programas/alimentacao-escolar/alimentacao-escolar-consultas/repasses-financeiros>). As Brazilian municipalities Fundação and Dores do Rio Preto had not been included, the data obtained directly from the respective municipalities were added.

To characterize the insertion of family agriculture into PNAE, two spreadsheets were prepared using the Microsoft Excel software. The first one, referring to data from the Calls for Submissions for food purchases from family agriculture, which reveals the demand in the PNAE market. And the second one, referring to sales projects presented by family farmers, which reveals the food supply in this market. Years 2013, 2014 and 2015 were considered.

In these spreadsheets, the variety of food, the number of family farmers participants and the final values of the Calls and the projects presented were described.

PNAE's municipal data sources used were as follows: Calls for Submissions and their respective reports, available on the Alegre municipality website, the sales projects from rural associations made available by the Rural Workers' Union of Alegre and documents by FNDE, available on its site.

## Results and Discussion

### The construction of Calls for Submissions and food sales projects by PNAE in Brazilian municipality of Alegre, ES

The PNAE Executive Agency in Alegre, ES, is the Municipal Department of Education, which receives resources directly from FNDE for the purchase of food.

In this municipality, PNAE's "shared management" has been taking place, involving this department, family farmers' associations and the Rural Workers' Union in order to maintain a permanent dialogue aiming at a participatory construction of Calls for Submissions and food sales projects. This process involves actions such as negotiating variety, quantity and prices of food that shall be purchased by the municipality, combined with joint production planning with rural associations concerned to better meet the schools' demands. Also, there is an extension project<sup>c</sup> which supports and advises such process.

PNAE can be understood as a public and institutional market that has been "socially constructed." According to Panzutti,<sup>17</sup> this approach presupposes that the market is not an entity separate from economic agents, such as an "invisible hand" determining its functioning. Actually, the market is "[...] The result of social structures and interactions within a given historical context [...], which is organized according to the self-interest of agents inserted in specific situations [...]."<sup>17</sup>

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c The project is called "Promoting solidary marketing by family farmers in Alegre, ES." It is coordinated by Brazilian university *Universidade Federal do Espírito Santo* (UFES) and carried out in a partnership with the Rural Workers' Union, the Family Agriculture Network and the *Instituto Capixaba de Pesquisa, Assistência Técnica e Extensão Rural* (Institute for Research, Technical Assistance and Rural Extension of Espírito Santo; INCAPER).

In the case of direct purchase and sale markets, that is, without an intermediary action among producers and consumers, social proximity, knowledge and mutual trust are seen as basic conditions in its construction process. And public markets require open and democratic governance mechanisms due to dealing with public funds to meet specific demands.<sup>18</sup>

This experience of shared management carried out in Alegre demonstrates that this social construction is really possible, expanding and qualifying the market for school lunches based on the social organization of family farmers. They have begun to perform collective actions to raise awareness, claim and demand from the municipal public government, in a much more articulated way, the opening of dialogue channels on issues pertinent to PNAE, in particular in the participatory development of Calls for Submissions.

Regarding PNAE management, specifically regarding the form of construction of the Calls for Submissions, few studies on the subject matter have been identified. Malina<sup>19</sup> reports that, by means of *Projeto Nutre SP*,<sup>d</sup> workshops have been held in municipalities and regions Bragança Paulista and Mogi Mirim, Sorocaba, Sudoeste Paulista and Vale do Ribeira in the state of São Paulo in the year 2011 aimed at family farming organizations. These workshops have discussed the difficulties and possible solutions to implement Law no. 11,947/2009, but the issue of lack of dialogue among the parties involved (municipalities and family agriculture organizations) was one of those that appeared in all workshops.

Malina<sup>19</sup> recommends approaching the city hall and local farmers prior to launching the Call for Submission so that “they can better adapt to each of the parties’ conditions to implement the necessary legal apparatus.”

In turn, Aroucha,<sup>20</sup> in research carried out with *Projeto Nutre Nordeste*<sup>e</sup> in nine states of northeastern Brazil, focusing the first two years (2010 and 2011) of implementation of Law no. 11,947/2009, has verified that in developing and publishing the Calls for Submission some (municipal and state) Departments of Education have raised difficulties for the Calls to be met by the family agriculture organizations, such as: adopting different modalities of Calls; little publicity of them in places and means more accessible to those organizations; noninclusion of food traditionally produced by family agriculture; and even limiting themselves to performing a system of purchase by trading.

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d A project held by *Instituto Via Pública* in a partnership with the Family Farming Department from the now defunct Brazilian Ministry of Agrarian Development, aiming to foster an articulation between family agriculture and the municipalities of São Paulo to implement Law no. 11,947/2009.

e A project executed by NGO AGENDHA having the same partnership and an objective similar to that of *Projeto Nutre SP* previously mentioned, with operations in nine capitals and six metropolitan municipalities in the Northeast region.

Analyzing the performance of public managers in acquisitions of family agriculture by PNAE, Belik<sup>21</sup> states that, in general, managers

are refractory to change and do not willingly face the ramifications of procedures resulting from the incorporation of family farming, which evidently generates more work and more demands on the part of an industry that was previously excluded from management.

This inoperative posture by public managers becomes then a major obstacle to implementing the participatory construction process of Calls for Submission in states and municipalities, as is the case in Alegre, ES.

The following steps should be followed for constructing the Calls for Submission and food sales projects by PNAE. It should be noted that the Calls represent a municipal schools' demand and that not all of this demand is always met by the family farmers' sales projects, which represent the supply of food.

### ***1. Budget***

The Municipal Department of Education must identify the amount of money transfer from FNDE, which is based on the previous year's school census. For example, in Alegre in 2014 it was in the amount of BRL 333,840.00. As provided for in FNDE Resolution no. 26/2013,<sup>22</sup> the minimum percentage (30%) of the purchase from family agriculture may be waived only when one of the following circumstances occurs, provided that the Executing Agency is duly certified in rendering accounts:

- I – The impossibility of issuing the corresponding tax document;
- II – The nonavailability of regular and constant supply of foodstuffs, provided that the products seasonality is taken into account; and
- III – Inadequate hygienic and sanitary conditions.

The amount transferred by FNDE to states and municipalities per school day and for each student is defined according to the teaching stage and modality.<sup>f</sup>

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<sup>f</sup> Current values: Day care centers: BRL 1.00; Preschool: BRL 0.50; Brazilian Indigenous peoples' and quilombo areas' schools: BRL 0.60; Elementary, middle and youth and adult education: BRL 0.30; Integral education: BRL 1.00; Students from the Brazilian government *Programa Mais Educação* (More Education Program): BRL 0.90; And students attending Brazilian government educational service specialized in extracurricular activities: BRL 0.50 (Available on: <http://www.fnnde.gov.br/programas/alimentacao-escolar/alimentacao-escolar-apresentacao>. Access on: March 7, 2016).

## ***2. Menu***

Based on a previous survey of local family farming products, nutritionists should develop school lunch menus including regional foods regarding nutritional references and local eating habits, and according to the crop. Chaves et al.<sup>23</sup> emphasize nutritionists' importance in developing school menus by planning, creating, following up and evaluating school lunch menus.

## ***3. Price research***

In the municipality of Alegre, ES, food prices survey has been made through said extension project. Three annual quotations are made, in March, August and November, in three local supermarkets and at the municipal fair, averaging the prices practiced in these markets. The initiative to carry out quotations also throughout the year is a way of taking into account possible food prices fluctuations.

But FNDE Resolution no. 26/2013,<sup>22</sup> in its Article 29, only requires that the acquisition price be “the average price surveyed in at least three markets at local, territorial, state or national levels, in that order, prioritizing family farmer’s fair, when there is one.”

This project team has also carried out, together with farmers, a survey of production and marketing costs as some basis for establishing fair food prices. If producers consider that average market values calculated are not covering their costs, they seek the Department of Education to discuss the prices to be paid.

## ***4. Call for Submissions***

Acquisition of food from family farming for school lunches can be carried out without a bidding process, according to art. 14 of Law no. 11,947/2009,<sup>2</sup> provided that the conditions defined therein are met.

A Call for Submissions is

a simplified process used for the acquisition of family farming foodstuffs with federal resources passed on by FNDE to Executing Agencies (municipalities and state/district Departments of Education) to meet the school lunch demands. It does not use prices as a criterion for selecting sales projects, considering the logic of family agriculture production (smaller scale of production, logistics and distribution difficulties and others) but prices practiced must be compatible with local markets prices.<sup>24</sup>



The Call for Submission must include: the necessary documentation, dates of receipt and opening of envelopes with proposals, selection site, products to be acquired and their specifications, quantities and amounts to be paid, delivery place and schedule.

In Alegre, a commission made up of family farmers leaders and supporters meets first with the Secretary of Education and a nutritionist to negotiate variety, quantity and prices of food that shall be purchased.

### ***5. Developing the sales project***

Those in charge of preparing the family farmers' sales project should be a formal group (associations and cooperatives), an informal group or individual suppliers. The project must comply with the Call for Submission and be forwarded to the Department of Education accompanied by the required documentation (as detailed below). In the case of a formal group, only a legal representative signs, while the informal group project requires the signature of all participating farmers.

Before beginning the projects elaboration, in Alegre some joint planning of the production to be offered to the municipal PNAE is performed, which takes place in an enlarged meeting, with the presence of all interested family farmers and support entities.<sup>5</sup>

### ***6. Receipt and selection of sales projects***

The sales project delivery must be accompanied by a declaration that the foodstuffs to be delivered are produced by the family farmers listed in the sales project. In addition, the following supplier qualification documentation is required:

- In the case of formal groups (associations and cooperatives): a Fitness Declaration statement with Pronaf (Portuguese abbreviation for Brazilian government Family Agriculture Strengthening Program) (legal entities' DAP, in the Portuguese abbreviation) issued in the last 30 days and CNPJ (Brazilian National Register of Legal Entities) number; proof of being in good standing with the Brazilian Federal Treasury regarding Social Security and FGTS (Portuguese abbreviation for Brazilian government severance pay indemnity fund); and copies of the company's articles of incorporation and minutes of the current board's office taking of the entity registered with the competent body.

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<sup>g</sup> The mentioned extension project has also helped in elaborating the sales projects. It has even kept a scholarship holder technician to provide such help (from November 2013 to October 2015) for two days a week at the Union's headquarters, besides promoting training for young people, who were family farmers' children, to prepare these projects.

- In the case of informal groups and individual suppliers: a Fitness Declaration statement with Pronaf (Portuguese abbreviation for Brazilian government Family Agriculture Strengthening Program) (individuals' DAP, in the Portuguese abbreviation) issued in the last 30 days and CPF (Portuguese abbreviation for Brazilian government Personal Identification Number) number of each participating family farmer.

The sales projects qualification, which consists of verifying the projects and documentation, is made in a public session registered in the minutes. Initially, it should be noted that products have to comply with sanitary legislation and that family farmers' individual selling limit is BRL 20 thousand per DAP/year. After the authorization, the Department of Education selects the sales projects according to criteria established in FNDE Resolution no. 26/2013<sup>22</sup> and it should consider the following order of priority:

1. Suppliers of the municipality;
2. Settlement of agrarian reform, traditional Brazilian Indigenous peoples' and quilombo areas' communities;
3. Food certified as organic or agroecological;
4. Formal groups, prioritizing those with more family farmers;
5. Informal groups;
6. Individual supplier;
7. Suppliers from other municipalities.

In the municipality of Alegre, in the 2015 Call for Submission, nine (9) rural associations (formal groups) of the municipality participated, being one (1) of agrarian reform settlement and three (3) informal groups, one being from a neighboring municipality. In 2013, there were six (6) rural associations in the municipality. And in 2014, seven (7) rural associations of the municipality, one (1) informal group (with Alegre farmers and a neighboring municipality) and two (2) individual suppliers of the municipality.

The evaluation of the foods to be marketed follows three criteria, as provided for in the legislation:

1. If they meet the specifications of the Call for Submission;
2. If they have a sanitary certification, when there is this requirement;
3. If they comply with the sample test, in which it is possible to qualify their sensorial characteristics.

### ***7. Contract of purchase, delivery of food, receipt and payment terms of farmers***

The contract establishes the commitment made by the Department of Education and family farmers to provide school lunches, defining the parties' rights, obligations and responsibilities according to the terms of the Call for Submission and the project to which it is linked.

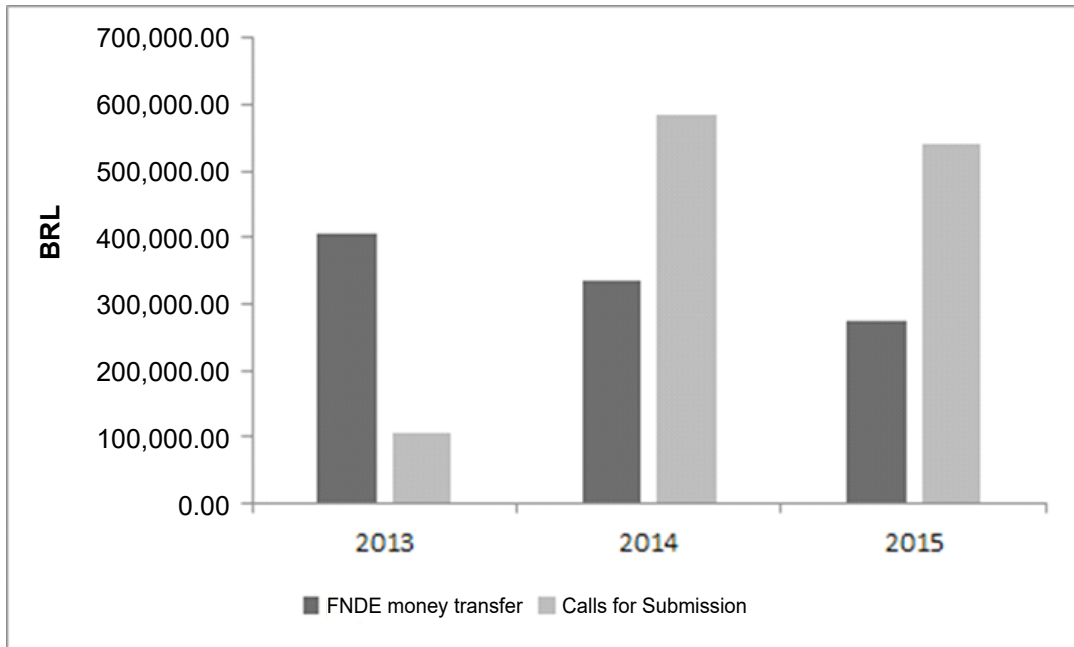
The food delivery process must follow the schedule provided in the contract. At the time of delivery, the "receipt term" must be signed by a representative of the Department of Education and the supplier(s), attesting that the food delivered is in accordance with the contract and within the required quality standards .

In Alegre, as soon as the delivery order is issued by the city hall, the producers deliver the goods directly to PNAE warehouse and the logistics of distribution to schools is borne by the city hall. At the time of delivery, the producer also issues a tax invoice (from the producer's tax invoice book) duly completed and then they receive payment.

### **Characterizing the insertion of family farming in the PNAE of Alegre**

PNAE, besides seeking to contribute to ensure food and nutrition security among public school students, works on constructing local markets as some factor to encourage sustainable rural development, since, after the program decentralization and the obligation to purchase food from the family farming, it has collaborated to boost some diversified and regional production, as is the case of the municipality of Alegre, ES, which shall be demonstrated below.

In this municipality, since 2010 the purchase of food from family farming for school lunches has been carried out. PNAE's Call for Submissions, which reflect the amount (demand) that the municipality is willing to purchase from family agriculture, have significantly increased compared to the year 2013, as shown in Figure 1. Between the years of 2013 and 2014 there was an increase in the demand of around 553%, going from BRL 105,690.63 to the amount of BRL 584,474.72. Although between the years of 2014 and 2015 this amount fell by 7.68%, the figure is still 510.83% higher than in 2013, reaching BRL 539,904.80.<sup>25-27</sup>



**Figure 1.** FNDE transfer amounts to Alegre, ES, municipality and PNAE Calls for Submission amounts from 2013 to 2015.

Sources: Survey data.

It is observed that the city government, starting in 2014, has even proposed to allocate its own resources, in addition to FNDE's, to provide for this type of food purchase. It should be noted that the FNDE transfer amount has had reductions in the period under analysis, as shown in Figure 1, going from BRL 405,820.00 in 2013 to BRL 333,840.00 in 2014 and BRL 275,340.00 in 2015<sup>28</sup> mainly due to reduction in the number of students.

However, when meticulously analyzing the food contained in these Calls for Submission, the inclusion of a significant number of foods not produced in the Alegre region, such as cucumber, cauliflower, cabbage and cassava flour, is verified. This ends up partially canceling the municipal initiative to increase these amounts, although efforts to diversify school menus to be acquired are pertinent, even if it comes from other municipalities.

For this reason, the challenge of revising the criteria for formulating the Calls is clear, seeking, in the short term, to prioritize more food already produced and, in the medium/long term, to encourage diversification to better meet schools' demands. This encouragement shall depend on a specific agricultural policy from the municipality, involving, in addition, partnership with bodies such as *Instituto Capixaba de Pesquisa, Assistência Técnica e Extensão Rural* (Institute for Research, Technical Assistance and Rural Extension of Espírito Santo; INCAPER) and Brazilian university *Universidade Federal do Espírito Santo* (UFES).

Teo & Monteiro<sup>29</sup> have also addressed this issue by advocating the importance of providing healthy food for the PNAE, which should be basically fresh or minimally processed foods from family agriculture. In order to do so, they argue that farmers need support from assistance agencies in planning their production in order to better meet this demand.

Motter & Teo,<sup>30</sup> studying the process of implementing the PNAE in two municipalities in the Brazilian state of Santa Catarina, have observed that the menus were adapted to use the food provided by the local family producers, maintaining the students' eating habits and also using a pedagogical strategy to teach the importance of food and nutrition security.

Analyzing the sales projects presented by family farmers and their associations, that is, the food supply for participation in PNAE's Calls for Submissions in Alegre, as shown in Figure 2, it is possible to note an increase of 454.58% in the amount from 2013 to 2015, since in 2013 the amount was BRL 105,690.63, changed to BRL 396,618.86 in 2014 and reached a total amount of BRL 480,453.80 in 2015. Thus, when confronted with the municipal public demand data (Calls), the following configuration is seen: In 2013, demand and supply remained in balance. And in 2014 and 2015 supply was lower than demand, in proportions of 32.14% and 11.01%, respectively.



**Figure 2.** Public demand and supply for food from family farming in Calls for Submission by PNAE in Alegre, ES, from 2013 to 2015.

Sources: Survey data.

However, when considering the preliminary data presented by the FNDE<sup>h</sup> as what was actually effected by the municipality in purchases from family agriculture, it is observed that only 15.52% of the FNDE was used in 2013. In contrast, in 2014 some value greater than the total transferred by the FNDE was used, equivalent to 116.68% of it. In 2015, as FNDE has not yet disclosed how much was effected, mention is made only of the fact that the sale (supply) projects corresponded to 89% of the value of the Call for Submission (demand), according to Figure 2. Class actions by family farmer organizations forcing the PNAE shared management were decisive for this progress.

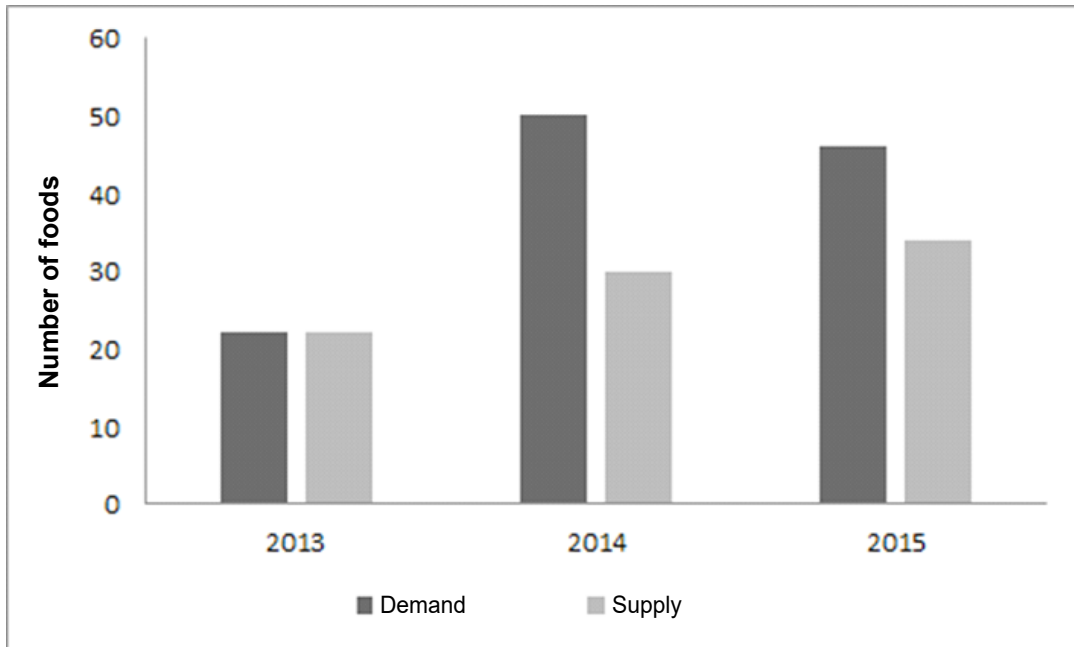
<sup>h</sup> Data available on: <http://www.fnde.gov.br/programas/alimentacao-escolar/alimentacao-escolar-consultas/dados-da-agricultura-familiar> (access on: November 23, 2015). FNDE informs that “The data presented are preliminary, extracted from the Account Management System – SigPC, in the Portuguese abbreviation – FNDE online accounts, in operation as of 2011. SigPC records are carried out by municipal and state public managers responsible for local execution of PNAE for accountability purposes.” As account renderings are still under review, FNDE points out that the data presented are subject to change.

Compared to neighboring municipalities applying the same preliminary data from the FNDE referred to,<sup>b</sup> it is verified that the Brazilian municipality of Guaçuí, for example, has used 95.67% in 2013 and 59.43% in 2014 of the FNDE money transfer for family farming purchases. As for Jerônimo Monteiro municipality in the same years, it has used 0.0% and 28.62%, respectively, and Muniz Freire, 39.11% and 37.53%, respectively. In 2014, Alegre superiority was evident when using 116.68% of FNDE money transfer in this type of purchase, while in 2013 the highlight was for Guaçuí.

It is worth mentioning that in 2015 the Municipal Department of Education of Alegre reduced 20% in the total purchase expected in the Call for Submission, falling to BRL 384,363.04. This was due to delay in the publication of the Call for Submission and delay in the city hall's bureaucratic procedures. Therefore, deliveries, which should have begun in February (beginning of the Brazilian school year), only started at the end of April, two months after the start of classes, which led to 20% reduction in purchases, since the school year lasts ten months. This fact poses some great challenge: the urgency for improving the PNAE's administrative efficiency, which has led to missing two months of better quality food for students and income for farmers.

The school population served by the program in the municipality has undergone some small successive reductions, totaling, in the years 2013, 2014 and 2015, the following numbers of students, respectively: 2,522, 2,406 and 2,297. And the total of municipal schools served has fallen from 40 in 2013 to 35 in 2014 and 30 in 2015.<sup>16</sup> This reduction was mainly due to the closure of rural schools, which ended up disadvantaging family farmers, in contradiction to what is preached by the PNAE. After all, this represents another element of rural exodus, as advocated by Peripolli & Zoia.<sup>31</sup>

As for food diversity, there was an increase of 54%, from 22 in 2013 to 34 different foods offered by farmers in 2015, as shown in Figure 3. Thus, school lunches gain in quantity and quality, with a positive impact on children's and adolescents' health.



**Figure 3.** Variety of food in supply and demand for PNAE by Alegre, ES, from 2013 to 2015.

Sources: Survey data.

Analyzing the universe of these 34 foods offered by farmers, in 2015, 32.4% of them corresponded to the group of vegetables, 14.7% to fruit, 17.6% to processed food and 26.5% to minimally processed food. The others (8.8%) are fresh foods. It is observed that this composition of food supply was compatible with what is advocated by Teo & Monteiro,<sup>29</sup> that is, that the healthiest foods for the PNAE be fresh or minimally processed foods, which, in Alegre, have corresponded to 55.9% and 26.5%, respectively, totaling 82.4% of the supply.

Amorim et al.,<sup>32</sup> when focusing Calls for Submission related to 99 municipalities in the state of São Paulo in 2013, have found that the foods of the groups of vegetables and fruits were the most present ones, representing 50% and 31%, respectively, of the total food to be purchased. In the case of Alegre, considering only what appears in the 2015 Call for Submission (municipal demand), these same groups represented 40.4% and 10.6%, respectively, well below the situation of the municipalities of São Paulo in the demand for fruits (2/3 lower) for making up school menus.

There is also an area not exploited by Alegre, organic foods, which are considered to be healthier. Even with the incentive of 30% more in the price provided in the legislation, they have not been offered in the Calls for Submission. Only one farmer in the neighboring municipality (Guaçuí) ended up offering organic strawberry.



Amorim et al<sup>32</sup> have verified in the state of São Paulo in 2013 that in only one of the 122 Calls for Submission analyzed (referring to 99 municipalities) organic food had been included, this being only rice. As for the state of Santa Catarina, in 2010 Silva & Sousa<sup>33</sup> verified that only nine of the 52 municipalities analyzed had acquired some organic food. And in the state of Paraná, Melão<sup>12</sup> has verified that 23% of the schools served by PNAE in 2012 were adopting organic food.

An interesting foreign case, analyzed by Sonnino et al.,<sup>6</sup> was related to the city of Rome, Italy, which stands out for the predominance of organic products in school lunches. The authors report the importance of government incentives in this regard, especially the Italian budget law (no. 488/1999), which determines the offer of organic agricultural products in all public meal services as some means to promote organic agriculture.

Another relevant PNAE indicator in Alegre, ES, concerns the inclusion of the city's family farmers in this market. In the last three years there has been a very significant increase in the number of participants, being 2.8 times greater. In 2013, 14 farmers participated; in 2014, they were 34; and in 2015, this number reached 39. In addition, two farmers from a neighboring municipality also participated in 2015.

In terms of organized groups participating, it evolved from six (6) rural associations (formal groups) of the municipality in 2013 to nine (9) associations in 2015, one of them being an agrarian reform settlement, and three (3) informal groups, one of which is from a neighboring municipality. It is believed that indirectly PNAE is helping to strengthen family farmers' organizations, even because it prioritizes the acquisition of food offered by formal groups. This same effect has also been observed by other authors in the state of São Paulo<sup>34</sup> and in the municipality of Espera Feliz, MG.<sup>4</sup>

This new opportunity of access to the market that the PNAE has been providing to family farmers is of great importance as an alternative to generate work and income and an encouragement to remaining in farms. In addition, it also contributes to boosting local economy, since they are also consumers, both of production inputs and goods, as well as household products and goods. This increases the municipality's social policies efficiency as it applies its financial resources to local agricultural development, encouraging the diversification of crops to ensure a varied and balanced menu in public schools, while providing better income distribution.

On the part of City Halls, lack of vision and planning of PNAE actions was verified in an intersectorial fashion. This finding was based on the project extensionist experience (referred to in the previous section) coordinated by Brazilian university *Universidade Federal do Espírito Santo*. This is because the issue of marketing, for family farmers, involves not only opening up new markets but also PNAE.

Meeting the diversified food demand that PNAE raises requires technical assistance and investment to adjust production, which needs to have some good transportation infrastructure

to reach the market. In addition, rural households, to remain in the producing field, need access to school education in the countryside and to medical care, among other necessities.

Therefore, it is an issue of “sustainable rural development,” whose promotion shall depend on political will for the municipal departments involved (Education, Agriculture, Environment, Health and Works) to work together to solve these obstacles. A good start would be at least an integration between the Departments of Agriculture and Education. Motter & Teo<sup>30</sup> have also reported that joint actions between them make it possible to achieve greater PNAE effectiveness, according to the 2009 law.

In this sense, it is appropriate to reinforce a broader approach to PNAE with a view to “food and nutrition security,” which, according to Leão & Maluf:<sup>35</sup>

[...] Seeks to broaden access to food while questioning the inadequate standard of food consumption, suggests more equitable, healthy and sustainable ways of producing and marketing food and requalifies actions targeted at vulnerable population groups or with specific dietary requirements. These three lines of action translate the pursuit of food and nutrition security into a yardstick for a country's development strategies, as well as sustainable development and social equity.

Finally, the importance of the shared management process for the advancement of PNAE in Alegre is highlighted, which involves the Department of Education and family farmers' socio-political organizations, aiming at the participatory construction of Calls for Submission and food sales projects.

It is worth mentioning, in this process, the role taken on by the Rural Workers' Union of Alegre, as a legitimate representative of family farmers, becoming a protagonist in issues related to PNAE, which include: negotiating with the Department of Education key points such as variety and food prices; the joint planning with the associations of the production to be offered; and the autonomous preparation of their food sales projects. It was also noted that the issue of inserting farmers in PNAE has often become part of the agenda at the monthly meetings by the Family Agriculture Network of Alegre, which are promoted by the Union, with the participation of representatives of several rural associations.

## Conclusions

In the municipality of Alegre, ES, in the period from 2013 to 2015, PNAE has grown in relation to the values of the Calls for Submission and sales projects presented by family farmers. It was verified that the minimum percentage of compulsory purchase was not fulfilled in the year of 2013,

being 15.52%. But, on the other hand, the city administration applied in acquisitions from family agriculture, in the year 2014, some value greater than the total transferred by FNDE, equivalent to 116.68% of it. And in 2015, it is only known that the farmer's sales projects have corresponded to 89% of the Call for Submission value, since it has not yet been announced how much was actually acquired. There was a 2.8-fold increase in the number of family farmers inserted in this institutional market, reaching 39 farmers, and the diversity of food offered was increased by 54%, resulting in 34 different foods.

The importance of the shared management process for PNAE advancement in Alegre is highlighted, making it possible to carry out the participatory construction of Calls for Submission and food sales projects. Collective actions by family farmers' organizations were decisive for this advancement.

Thus, in Alegre PNAE has been demonstrating its potential to interconnect local family agriculture with school lunches, aiming to provide food and nutrition security for children and adolescents in public schools and, at the same time, contribute to the development of rural areas of the municipality in a sustainable way.

However, one of the great challenges to be addressed is to make the municipal public government perceive the systemic dimension of PNAE by listing topics such as family farming, eating, school performance and local sustainable development. This would imply defining and implementing actions of intersectorial nature involving the Departments of Education, Agriculture, Environment, Health and Works.

## Contributors

Rodrigues R. has participated in all steps; Siqueira H.M. has participated in the study design, data analysis, literature review and article writing; Biancardi C.C.S. has participated in the study design, data collection and analysis and adaptation to the journal norms; Andrade M.A.N. has participated in the data analysis and article writing; Valente L.M. and Paula L.B. have participated in data collection, literature review and adaptation to the journal norms.

Conflict of interests: The authors declare having no conflict of interest.

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Received: December 19, 2016

Accepted: January 29, 2017