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PUBLIC FOOD PROCUREMENT FOR SUSTAINABLE FOOD SYSTEMS AND HEALTHY DIETS

VOLUME

2





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14 PUBLIC PURCHASING OF FAMILY FARMING PRODUCTS UNDER THE BRAZILIAN NATIONAL SCHOOL FEEDING PROGRAMME (2011–2017)

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ABSTRACT

As of 2009, at least 30 percent of total resources under the Brazilian National School Feeding Programme (PNAE) must be spent to purchase food from family farmers. This innovative requirement turns PNAE into a driver of local family agriculture by strengthening markets for family farming products. This chapter analyses the participation of family farmers in school feeding programmes at the national and regional levels. It investigates to what extent municipalities have, as PNAE budget managers, complied with the 30 percent requirement and improved market opportunities for family farmers. The chapter analyses whether the size of municipalities is an element that influences their performance in this respect. The results of the analysis show that overall the inclusion of family farming products in school meals is still below the minimum set by law. However, there is potential for growth. Clear differences are observed between the various Brazilian regions, with the South Region being a notable outlier.

14.1 Introduction¹

Public procurement has been identified as a market that has the potential to strengthen the development of small-scale farming and thereby promote social inclusion processes. The procurement of food from family farmers by public bodies in particular has attracted considerable interest from academia and international cooperation agencies, due to its potential to promote both economic development and social welfare and food security (Drake *et al.*, 2016; Sonnino, Torres and Schneider, 2016; Morgan, 2014; Food and Agriculture Organization of the United Nations [FAO], 2013; World Food Programme [WFP], 2013; Sumberg and Sabates-Wheeler, 2011). Institutional markets (or structured demand) are tools that fit in with Keynesian ideas about the potential of the state to generate effective demand, boost production and markets and thus trigger drivers of development.

The power of the state in economic planning and its role as inducer of development are relatively well known, particularly with regard to the post-World War II period (Morgan and Sonnino, 2008). Between the 1980s and the 2000s, government intervention declined as the orthodox view of the market as the best mechanism to control supply and demand gained broad support. In neoliberalism, the market plays the leading role, while the state merely enters the scene to correct flaws in self-regulatory and governance mechanisms. More recently, however, states have resumed their role in new forms of interaction with markets, for example by supporting local agrifood markets, which stand out for their promising results in terms of both social protection and food security (High Level Panel of Experts on Food Security and Nutrition [HLPE], 2015).

International organizations (e.g. FAO and WFP) have highlighted the synergy between (conditional or unconditional) cash transfer programmes and local food procurement policies; together, they can boost supply and demand simultaneously. There is ample evidence of the interface between social protection policies, food security actions

¹ This chapter is an updated and modified version of Schneider, S., Thies, V. F., Grisa, C. & Belik, W. 2016. Potential of public purchases as markets for family farming: an analysis of Brazilian School Feeding Programme between 2011 and 2014. In D. Barling, ed. *Advances in food security and sustainability, Volume 1, 1st edition*, pp. 69–95. Cambridge, USA, Academic Press. The present version discusses the new data published by the Brazilian National Fund for Educational Development (FNDE).

and efforts to reduce rural poverty (FAO, 2015; Devereux, 2015; Tirivayi, Knowles and Davis, 2013; HLPE, 2012). Public food procurement, whether to build public stocks (for strategic or regulatory reasons) or to distribute food, has been identified as a new direction to rethink the role of small producers. Indeed, in most poor or food-insecure countries, the agriculture sector is largely made up of family farmers (Sumberg and Sabates-Wheels, 2011).

Against this background, WFP (WFP, 2013) and the International Food Policy Research Institute (IFPRI, 2014) are reviewing conventional aid policies (based on food donations from the North to the South) and have begun to support the public purchasing of national, regional and local food products (e.g. under home-grown school feeding programmes) (Aliyar, Gelli and Hamdani, 2015; Sidaner, Baladan and Burlandy, 2013).

In several countries, especially in Africa and Latin America, FAO has encouraged public food procurement from family farming (FAO, 2015, 2013). In 2015, FAO published the report *The State of Food and Agriculture in the World (SOFA)* with the subtitle *Social protection and agriculture: breaking the cycle of rural poverty*. The report strongly supports school feeding programmes based on the consideration that they not only boost the intake of food by pupils and students, but in many cases also improve micronutrient intakes. Most programmes operate within the geographic boundaries of areas where poverty and food insecurity are more prevalent. Thus, the supply of food at the local level improves food security and offers a market outlet to local producers (FAO, 2015). Meanwhile, the WFP publication *The State of School Feeding Worldwide* emphasizes the benefits of linking local production (and particularly family farming) with school feeding programmes to support the sustainability (continuity) of these programmes, improve the quality of food offered in schools and create structured markets for local products. The document highlights the case of the Brazilian National School Feeding Programme (PNAE) as a successful experience (WFP, 2013). Another WFP publication, *Global school feeding sourcebook: lessons from 14 countries*, which is based on studies conducted in 14 countries, remarks that the purchasing of local products for inclusion in school meals is a new trend in school feeding programmes (Drake *et al.*, 2016).

The Brazilian experience with PNAE has gained prominence since 2009, when the programme underwent a major institutional change.² Article 4 of *Lei N° 11.947, de 16 de Junho de 2009* (Law No. 11.947 of 16 June 2009) establishes that at least 30 percent of the resources of the National Fund for Educational Development (FNDE) allocated to school feeding under PNAE should be used to procure food from family farmers,³ with priority being given to local family farmers, land reform settlers, indigenous and quilombola (decedents of Black slaves) communities, organic producers and formal groups (*Resolução N° 4, de 2 de abril de 2015* [Resolution No. 4 of 2 April 2015]). The law created an institutional link between the food offered in public schools in Brazil and local or regional family farms (Maluf, 2009). In other words, school feeding became an important tool to reconnect local production and consumption (Triches, 2010).

Brazil's school feeding programmes have been recognized by various international organizations as an example of good practices. In 2014, FAO stated that:

Access to school meals has become a universal right under Brazilian law, and 43 million pupils in 250 000 schools now get at least 30 percent of their daily nutritional needs when they attend school. Besides improving the health of millions of young people and reducing absenteeism, the programme provides a guaranteed market for 120 000 family farmers. Such has been the success of Brazil's school feeding programme that its strategies are being replicated and adapted elsewhere in Latin America and, more recently, the Caribbean (FAO, 2014, p. 2).

The specificities of PNAE are interesting (Fornazier and Belik, 2015, 2013). First, it is a long-standing programme (it was started in 1955), consolidated into a vertically institutionalized structure that encompasses all three governmental levels (federal,

² Prior to 2009, purchasing for school feeding was ruled by the principle of economic efficiency established in the Brazilian Constitution of 1988 and regulated by *Lei N° 8.666, de 21 de junho de 1993* (Law No. 8.666 of 21 June 1993) on public procurement. This process often supplied schools with processed foods, disconnected from the local food culture and local production and provided by companies able to take part in the bidding process. Although the decentralization of school meals, introduced in 1994, has helped minimize various prevailing distortions – such as the cartelization of food suppliers, rising school feeding costs due to the centralized acquisition and distribution of food, and the standardization of menus in disregard of regional food diversity (Triches, 2010; Maluf, 2009; Turpim, 2008; Spinelli and Canesqui, 2002) – there was no explicit mechanism to support local agriculture and family farmers or promote healthy school meals (Triches, 2015). *Resolução/CD/FNDE N° 38, de 23 de agosto de 2004* (Resolution/CD/FNDE No. 38 of 23 August 2004) requires that 70 percent of all purchases under PNAE be basic foodstuffs, indirectly assuming that these could be purchased from local farmers. The resolution included a list of basic products (which was updated later), including fresh and semi-processed foods to be purchased in local markets or from wholesalers.

³ *Lei N° 11.326, de 24 de julho de 2006* (Law No. 11.326 of 24 July 2006) defines family farms as rural establishments with an area of up to four fiscal modules. Family farms rely mostly on their own family labour; their household income arises predominantly from the economic activities of the farm and they are managed by the family that owns the farm.

state and municipal). Second, it is a national programme that has a universal character: it reaches almost all municipalities in the country, and guarantees the daily recommended intake of 800 calories for nearly 43 million children, youth and adults. Third, it is a programme that enjoys wide support and interest from civil society as it guarantees children's feeding (as well as that of young people and adults) and assists family farmers while mobilizing local public and private organizations. Fourth, it is a programme with an adequate budget: in 2017, the federal government, through FNDE,⁴ allocated USD 1.19 billion (or BRL 3.9 billion) to PNAE.⁵ Of this sum, at least 30 percent, or USD 0.36 billion (BRL 1.17 billion) was earmarked for the direct purchasing of family farming products. PNAE's budget and coverage makes it one of the most comprehensive public policies in Brazil. It has the potential to benefit a very important segment of the population, namely school-aged children, many of them from low-income families.

A decade after Law No. 11.947 of 16 June 2009 changed PNAE into an internationally recognized programme, it is opportune to consider the relationship between school feeding, local public procurement and family farming. The following questions are particularly relevant:

- To what extent has PNAE acted as a driving force for local food production, i.e. to what extent has it strengthened markets for family farmers to promote rural development?
- To what extent do Brazilian municipalities comply with the requirement that at least 30 percent of the budget for school feeding shall be used to purchase family farming products?

This paper attempts to answer these questions in four sections after the introduction. Section 2 reviews the international academic literature and local experiences in Brazil, to understand how school feeding can boost family farming and identify possible challenges. Section 3 analyses the participation of family farmers in the supply of products for school meals from 2011 until 2017; the evolution of national results is tracked, and regional differences identified. Section 4 discusses the challenges involved in the implementation of Article 14 of Law No. 11.947 of 16 June 2009 by analysing the share of family farming products in purchases for school meals in relation to

⁴ State and local governments should also allocate their own funds to school feeding.

⁵ According to the Central Bank of Brazil, the exchange rate on 2 January 2017 was USD 1 for BRL 3.27.

the size of municipalities (in terms of their number of pupils and students, which determines the amount of the funds transferred by FNDE to them). The aim of this exercise is to determine whether the size of municipalities influences the national and regional impact of the programme, based on the assumption that the municipalities with most pupils face more difficulties to include family farming products in school meals than smaller municipalities. Such difficulties would result from logistical problems in urbanized areas, and from the weaker influence of family farmers on decisions regarding public policies in larger municipalities. Section 5 presents some considerations as to the results discussed in the previous sections (see also Chapters 2, 8, 9, 10, 11, 12, 15 and 16 for additional analysis of the PNAE experience in Brazil).

The analysis in this chapter is based on data released by FNDE concerning the implementation of the programme during the period 2011–2017. The data were retrieved from FNDE's website in October 2019. As FNDE itself points out, some of these data are preliminary, and still await accounts analysis and auditing.⁶ Only municipalities are used as unit of analysis in this chapter; this excludes other implementing agencies (the federal district, the state departments of education and the federal system of basic education, which also receive funds from FNDE).⁷

14.2 Linking school feeding and family farming: notes from the international debate and from Brazilian experiences

The debate on school feeding and its contribution to the fight against malnutrition, poverty reduction and food security and nutrition has grown remarkably in recent years. School feeding is seen as an instrument to empower family farmers and promote local food production by offering a structured demand and creating new markets

⁶ According to FNDE:

- The data presented are preliminary. They are taken from the Account Management System (SigPC), the online reporting system of FNDE, in operation since 2011. SigPC records are provided by municipal and state public officials responsible for local implementation of the National School Feeding Programme (PNAE), for accountability purposes. (...) It must be noted that the reports are still under analysis and, therefore, the data presented here are preliminary and subject to change (Brazil, FNDE, 2017).

⁷ It is important to note that six municipalities were excluded from the analysis of the 2011–2017 period, because they did not provide information on the funds transferred by FNDE. Another 23 municipalities were excluded because they gave a share of family farming in school feeding of more than 200 percent. Such outliers may result from procedural errors and diverge too much from data of other municipalities (Brazil, FNDE, 2017).

(distinct from the conventional ones), and to promote local sustainable development (Morgan, 2014; Bundy *et al.*, 2009; Gelli, Neeser and Drake, 2010). Long considered a subject beneath the dignity of academics, school feeding has finally reached the top of political and academic agendas, and is discussed in connection with issues such as urban food supply, sustainability and agrifood system policies (Morgan, 2014).

A review of the international literature on the role of school feeding reveals four lines of narrative or perspective, with overlapping areas between them. These narratives are not necessarily theoretical or analytical; some of them are mere approaches that guide policies and interventions.

The first narrative places the discussion on school feeding within a broader framework of public health promotion. In this narrative, the state plays an essential role as the institution that commands policies and actions and governs both civil society and market actors (Smith *et al.*, 2016; Haynes-Maslow and O'Hara, 2015; Lang, Barling and Caraher, 2009; Rocha, 2009).

The second narrative suggests that school feeding should be part of a broader strategy of food security and nutrition, with a special focus on poverty reduction and social inclusion. This narrative advocates the linking of school feeding to the inclusion of small farmers as suppliers of food, and especially of those engaged in agroecological production (Maluf *et al.*, 2015; Wittman and Blesh, 2015; Soares *et al.*, 2013).

The third narrative is based on an approach that has been widely recommended by international organizations such as WFP and, more recently, IFPRI; it advocates the use of school meals to strengthen local food supply chains, and promotes the fostering of the connection between small farmers and public procurement (Gelli *et al.*, 2010, 2012; Alderman and Bundy, 2012; Izumi *et al.*, 2010; Otsuki, 2011).

A fourth narrative suggests that school feeding can be part of a broader strategy for food supply, based on the creation of new markets driven by public procurement. This approach suggests that alternative agrifood networks, comprising organizations such as cooperatives and small farmers' associations, are able to fill these markets and supply consumers with healthier products. Various studies in Brazil (e.g. Morgan and Sonnino, 2008; Sonnino, Torres and Schneider, 2014; Sonnino, 2009; Triches and Schneider, 2010a, 2010b; Turpin, 2009) and the United States of America (Fenstra and

Jeri Ohmart, 2012), highlight the potential of public procurement as a supporting mechanism for the reshaping of food supply systems (in which cities and urban areas can play an important role).

Much of the literature has focused on home-grown school feeding (HGFS), whereby school meals are connected to local production (Espejo, Burbano and Galliano, 2009). Under HGFS programmes, school meals consist of food produced and purchased within a country; such programmes emphasize the importance of purchasing from local, small farmers (Espejo, Burbano and Galliano, 2009). The idea underlying HGFS programmes is that rural enterprises, family farmers and small businesses can benefit from the demand from school feeding programmes if efforts are undertaken to boost their ability to access this market and increase production. Meanwhile, children can benefit from a diet that corresponds with their food culture.

Against this background, Espejo, Burbano and Galliano (2009) highlight a number of benefits of connecting school feeding programmes with the local agriculture sector, based on experiences in various countries. These benefits include the injection of funds into local production, the creation of jobs in enterprises that produce food for school meals, the increase in incomes of farmers and other suppliers, and farmers' increased use of technology to meet demand. Underlying these processes, the importance of the role of the state in structuring demand and promoting food security and nutrition stands out.

Sumberg and Sabates-Wheeler (2011) critically discuss the possible tensions and challenges of attempts to unite market-related and social purposes within a single public initiative or programme. According to the authors, it is often assumed that farmers are able and willing to produce for institutional markets, and that all they need are incentives to do so. However, based on the example of sub-Saharan Africa, the authors point out that production resources are generally scarce, labour productivity is low, and farmers often face barriers to access to information, training and infrastructure. These factors are not directly related to an increase in demand. Indeed, the authors claim that in many cases additional interventions are required to empower poor farmers and boost their ability to participate in new markets. Note that the specificities of institutional markets (e.g. more or less close to short supply circuits, or more or less centralized) have an influence on development dynamics.

The changes introduced by Law No. 11.947 of 16 June 2009 to the functioning of PNAE are particularly interesting. The expected and partially realized results of the programme (a large number of municipalities have not yet integrated family farming products into school meals) reflect the above-mentioned four narratives. Teo and Triches (2016) advocate an interdisciplinary and intersectoral approach to the subject, taking in several perspectives and dimensions including local and sustainable development, the (re)connection of producers and consumers, the incentivization of short supply circuits, food security and nutrition, nutrition education and health, food quality, and the strengthening of local identities and social cohesion.

Other researchers, adopting a similar approach to the issue, have conducted case studies throughout Brazil. Their reports identify school feeding programmes (and other types of public procurement from family farmers) as a significant market for family farmers that has the potential to boost both food security and local or regional development (Fernandes, Schneider and Triches, 2016; Maselli, 2016; Baccarin *et al.*, 2015; Triches, 2015; Silva, 2015; Becker, 2014; Fornazier, 2014; Altemburg, Caldas and Grisa, 2014; Malina, 2012; Triches and Schneider, 2012; Belik and Siliprandi, 2012).

However, there are limitations and challenges to boosting the participation of family farmers in public procurement markets (Sumberg and Sabates-Wheeler, 2011; Sulemana, 2016). Family farmers may find it difficult to organize their production to meet demands for consistent quantities and quality (e.g. in cities with many pupils and students) due to the structural limitations that historically affect this category of producers. These limitations include: the restricted size of farms, poor access to water, poor access to logistics infrastructure (e.g. roads), difficulties to meet processing standards (which are usually tailored to large-scale operations), etc. In addition, institutional arrangements and local political alliances are needed to support and organize small farmers' participation in public procurement markets.

These constraints can be observed in Brazil, too. Recent studies have highlighted the resistance of government officials to the institutional adjustments that are required to implement Law No. 11.947 of 16 June 2009, which is due to path dependence in the bidding processes (Corá and Belik, 2012). Also noteworthy are the structural limitations faced by schools for the conservation and processing of products of family farming (lack of human resources and equipment), the challenges of securing adequate

school food supplies in municipalities with a large number of students, and the risks of appropriation of these special markets by large cooperative enterprises. These challenges and limitations explain, to some extent, the data presented in Section 3.

14.3 The participation of family farming products in public purchases for school feeding in Brazil

Before analysing the participation of family farmers in the school feeding market, the access of municipalities to PNAE funds must be considered, as this chapter only considers municipalities that effectively received FNDE funds for school meals over the period 2011–2017. Table 1 shows that over 99 percent of Brazilian municipalities (5 530 municipalities) received funds from the programme in 2017.

Table 1 **Number and percentage of municipalities, by region and for Brazil as a whole, that received FNDE transfers for school meals over the period 2011–2017**

REGION	2011*		2012		2013		2014		2015		2016		2017	
	N.	%	N.	%	N.	%	N.	%	N.	%	N.	%	N.	%
North	374	83	363	81	442	98	432	96	445	99	395	88	445	99
Northeast	1 627	91	1 623	90	1 791	99	1 780	99	1 793	99	1 707	95	1 789	99
Southeast	1 624	97	1 627	98	1 653	99	1 645	99	1 659	99	1 611	97	1 655	99
Central West	440	95	436	93.76	456	98	452	97	462	99	441	95	457	98
South	1 180	99	1 179	99.24	1 184	99	1 189	99	1 187	99	1 179	99	1 184	99
Brazil	5 245	94	5 228	93.96	5 526	99	5 498	99	5 546	99	5 333	96	5 530	99

Note: * In 2011 and 2012, the number of Brazilian municipalities considered was 5 564, since the Federal District was excluded. In 2013 and 2014, this number rose to 5 569, as two municipalities were founded in the state of Santa Catarina, one in Rio Grande do Sul, one in Pará, and one in Mato Grosso do Sul in 2013.

Source: authors' elaboration, based on FNDE, n.d.

In 2011, FNDE resources reached 83 percent of all municipalities in the North Region, 91 percent in the Northeast Region and 95 percent in the Central West Region; by 2017, 98 to 99 percent of municipalities in all regions received such funds. These numbers show that PNAE has made significant progress towards the coverage of almost all municipalities in the country. They also illustrate the universal character

of the programme (as established by the federal constitution of 1988), as well as the magnitude of the “public plate” (Morgan and Sonnino, 2010, 2008) and of the institutional market.⁸

The data shown in Table 2 provide a first overview of the participation of family farmers in school feeding programmes. The table shows that the absolute number of municipalities that received FNDE resources and purchased products from family farmers for school meals grew from 3 100 in 2011 to 4 738 in 2017. Accordingly, the number of municipalities that did not purchase any products from family farmers decreased from 2 146 in 2011 (or 41 percent of all municipalities that received FNDE funds) to 792 (or 14 percent) in 2017. Significantly, the percentage of municipalities spending 30 percent or more of their funds to purchase family farming products (in compliance with Law No. 11.947 of 16 June 2009) has grown from 26 percent in 2011 to 49 percent in 2017.

Table 2 **Family farmers’ participation in school feeding programmes, 2011–2017**

	2011		2012		2013		2014		2015		2016		2017	
	N.	%	N.	%	N.	%	N.	%	N.	%	N.	%	N.	%
Municipalities that purchase from family farmers	3 100	59	3 484	67	4 328	78	4 382	80	4 597	83	4 534	85	4 738	86
Municipalities that do not purchase from family farmers	2 146	41	1 744	33	1 199	22	1 117	20	949	17	799	15	792	14
Municipalities that spent over 30% of their funds on family farming products	1 383	26	1 554	30	1 880	34	2 222	40	2 465	44	2 331	44	2 688	49
Share of expenditures on family farming products in total resources (nationwide)		15		15		24		23		26		24		25

Source: authors’ elaboration based on Brazil, FNDE, 2017.

⁸ In all, only 39 municipalities did not receive PNAE funds in 2017. According to Law No. 11.947 of 16 June 2009, FNDE may suspend the transfer of PNAE funds if states, federal districts and municipalities: do not set up a school feeding council, or fail to make it fully operational; do not adequately and timely report on the use of PNAE funds received; and fail to use PNAE funds as established by FNDE’s deliberative council.

Table 2 shows that the share of resources spent on family farming products in total resources spent by municipalities on school feeding has grown over the period 2011–2017 (even if the rise in the value of a single meal in transfers to municipalities since mid-2012 is taken into account). In 2011, approximately USD 181 million out of a total of about USD 1.41 billion transferred by FNDE to municipalities – or 15 percent – were used to buy family farming products. Meanwhile, in 2017, more than USD 206 million out of a total of about USD 832 million transferred by FNDE to municipalities were spent on family farming products, which represents a participation of 25 percent. These data show that, although the participation of family farming products has increased, and more municipalities have started buying from them, the minimum rate of 30 percent is difficult to reach. Some of the explanations for the relatively low rate of participation of family farmers in school feeding programmes and for the lack of continuity in this participation have already been mentioned above; they will be discussed again in Section 4 and Section 5.

To allow for a more detailed analysis, Table 3 and Table 4 show the number and percentage of municipalities according to strata of participation of family farming products in school feeding purchases from 2011 to 2017. Table 3 provides a detailed stratification at intervals of 15 percentage points (except for the last and penultimate strata). The table shows that in 2011, 93 percent of all municipalities were in the first three strata (0–44.99 percent); by 2017, this percentage had fallen to 81 percent. The most significant change was observed in the first stratum, which, in 2011, comprised 56 percent of the country's municipalities, compared to 28 percent in 2017. These data reveal that municipalities are making efforts to achieve the minimum expenditure on family farming products set by law. However, few are taking advantage of the law to strengthen family farming and stimulate broader local development. In 2011, only 7 percent of municipalities spent over 45 percent of their funds on family farming products; less than 1 percent of municipalities spent over 75 percent of their FNDE resources on these products. By 2017, these percentages had risen to 19 and 5 percent, respectively. Municipalities that use 100 percent of their FNDE resources to promote family farming are very rare.

Table 3 **Number and percentage of municipalities according to penetration strata for family farming products in school feeding purchases over the period 2011–2017 (extended strata)**

PARTICIPATION STRATA OF FAMILY FARMING (%)	2011		2012		2013		2014		2015		2016		2017	
	N.	%	N.	%	N.	%	N.	%	N.	%	N.	%	N.	%
0–14.99	2 939	56	2 550	49	2 280	41	1 995	36	1 723	31	1 616	30	1 567	28
15–29.99	902	17	1 103	21	1 357	25	1 278	23	1 355	24	1 386	26	1 274	23
30–44.99	1 031	20	1 058	20	1 252	23	1 286	23	1 464	26	1 406	26	1 618	29
45–59.99	236	5	323	6	350	6	526	10	560	10	525	10	538	10
60–74.99	86	2	111	2	134	2	230	4	212	4	199	4	266	5
75–89.99	29	1	53	1	78	1	92	2	105	2	102	2	134	2
90–99.99	13	0.25	19	0.36	26	0.47	32	0.58	62	1	40	0.75	58	1
> 100	9	0.17	10	0.19	50	0.90	59	1	65	1	59	1.11	75	1
Total	5 245	100	5 227	100	5 227	100	5 498	100	5 546	100	5 333	100	5 530	100

Source: authors' elaboration based on Brazil, FNDE, 2017.

Table 4 shows data for those municipalities that purchased products from family farming only, categorized into three groups: those that spend up to 30 percent of their resources on family farming products (insufficient participation of family farming products – non-compliant with Law No. 11.947), those that spend 30.01 to 60 percent (minimum to moderate participation of family farming products), and those that spend more than 60.01 percent (high participation of family farming products in school feeding purchases). In 2011, the participation of family farming products was too low in roughly 55 percent of municipalities, minimum to moderate in 40 percent of municipalities, and high in only 4 percent of municipalities. In 2017, these shares stood at 43, 45 and 11 percent, respectively. Although the second and third groups of municipalities grew, the growth was relatively slow; indicating that purchasing from family farmers is subject to political interference and administrative routines. Too often, governments fail to see public purchasing as a strategy for the promotion of family farming, food and nutritional security, or local or regional development through the development of sustainable food systems.

Table 4 **Number and percentage of municipalities according to strata of penetration of family farming products in school feeding purchases, 2011–2017 (simplified strata)**

STRATA OF PARTICIPATION OF FAMILY FARMING PRODUCTS (% OF OVERALL PURCHASES)	2011		2012		2013		2014		2015		2016		2017	
	N.	%	N.	%	N.	%	N.	%	N.	%	N.	%	N.	%
0.01–30	1 717	55	1 930	55	2 448	57	2 159	49	2 132	46	2 203	49	2 050	43
30.01–60	1 246	40	1 361	39	1 592	37	1 809	41	2 021	44	1 931	43	2 155	45
> 60.01	137	4	193	6	288	7	413	9	444	10	400	9	533	11
Total	3 100	100	3 848	100	4 328	100	4 381	100	4 597	100	4 534	100	4 738	100

Source: authors' elaboration based on Brazil, FNDE, 2017.

Table 5 shows the percentages of municipalities that received FNDE funds and purchased products from family farmers between 2011 and 2017 per region. The table shows that the number of municipalities that purchase products from family farmers has increased in all regions (albeit not constantly everywhere). The South Region consistently has the highest percentages over the period, and always well above the national average. In 2016 and 2017, almost 100 percent of municipalities in the South Region that received PNAE funds acquired products from family farmers for school feeding. The Southeast Region shows rates that are very similar to the national averages. In 2017, 85 percent of municipalities in the region purchased products from family farmers. The Central West Region consistently shows the lowest rates (except in 2013), with 74 percent of its municipalities buying from family farmers in 2017. The Northeast Region's performance is similar to that of the North and Central West Regions until 2013. In 2015, the share of municipalities that purchase products from family farmers for school feeding in the region increased significantly, bringing the region to a rate close to the national average.

Table 5 **Percentage of municipalities, by region and for Brazil as a whole, that purchase from family farmers for school feeding**

	2011 (%)	2012 (%)	2013 (%)	2014 (%)	2015 (%)	2016 (%)	2017 (%)	(%) INCREASE 2011-2017
North	52	59	69	71	72	79	77	47
Northeast	51	58	74	77	80	85	83	61
Southeast	57	65	76	80	83	80	85	49
Central West	48	58	72	67	72	76	74	54
South	78	86	94	91	95	98	98	25
Brazil	59	67	78	80	83	85	86	45

Source: authors' elaboration based on Brazil, FNDE, 2017.

Table 6 shows the share of funds spent by municipalities on family farming products in total FNDE funds received, per region. The table shows a clear upward trend in the share of school food acquired from family farmers in all Brazilian regions over the period 2011-2017, except for the Southeast region. The percentages are highest in the Southern Region throughout the period; they exceed 20 percent in 2011-2013 and 30 percent in 2014-2017. This makes the South Region the only region to exceed the 30 percent goal. The North and Central West regions were closest to reaching the minimum percentage established by law in 2017. Percentages for the Southeast Region increased until 2015 but fell thereafter, to about 20 percent in 2017.

Table 6 **Percentages of total PNAE funds used to purchase family farming products for school feeding, by region, 2011-2017**

	2011 (%)	2012 (%)	2013 (%)	2014 (%)	2015 (%)	2016 (%)	2017 (%)
North	10	15	23	25	26	26	27
Northeast	9	13	17	21	22	23	24
Southeast	9	12	15	21	25	19	20
Midwest	13	17	24	27	24	24	27
South	22	27	28	36	39	37	40

Source: authors' elaboration based on Brazil, FNDE, 2017.

In conclusion, the share of family farming products in school meals has grown nationwide over the period from 2011 to 2017, but limits to this growth are evident. Importantly, 51 percent of Brazilian municipalities failed to comply with the minimum set by law in 2017 nationwide; in some regions, this share is even higher. Public officials and researchers (e.g. Teo and Triches, 2016; Maselli, 2016; Baccarin *et al.*, 2015; Menezes, Porto and Grisa, 2015; Triches, 2015; Malina, 2012; Belik and Siliprandi, 2012) highlight a number of factors that may explain this result, including: a lack of dialogue and coordination between local actors, resistance to public bidding procedures and rules, logistical problems in the distribution of food, insufficient human resources and infrastructure in schools, , and poor planning and organization abilities of family farmers.

14.4 Inclusion of family farming products and the amount of National Fund for Educational Development's funds transferred to municipalities

The evolution in public purchasing described in Section 3 may also be perceived by analysing the share in total FNDE funds received per municipality that is spent on food from family farmers. Table 7 presents these data for a sample of three Brazilian states, which were selected based on the density of family farming and the presence of both large urban centres and small towns in the state. The selected states also cover different regions in the country. The sample consists of the state of Rio Grande do Sul in the South Region (which has a strong presence of family farming, and where family farmers are more organized in cooperatives), São Paulo in the Southeast Region (chosen because of the challenges posed to the implementation of PNAE in large cities) and Bahia in the Northeast Region (for its strong presence of family farming). These states account for a high share in total national FNDE resources (Rio Grande do Sul: 4.9 percent, São Paulo: 20.5 percent and Bahia: 8.2 percent in 2017).

Table 7 presents the concentration of municipalities per stratum of funds received for the three states in 2017, as well as the percentage of resources spent on family farming products per stratum. In Rio Grande do Sul, the clear majority of municipalities receive up to BRL 100 000 (USD 30 581); relatively few municipalities in this state receive more than BRL 500 000 (USD 152 905). Municipalities in São Paulo are more

evenly distributed among strata, with the highest concentration in the strata under BRL 200 000 (USD 61 162). In Bahia, most municipalities receive BRL 100 000 to one million, with a higher concentration in the stratum between BRL 200 000 and 500 000.

Table 7 **Municipalities in the states of Rio Grande do Sul, São Paulo and Bahia, per stratum of funds received from FNDE under PNAE, and the percentage of resources spent on family farming products per stratum, 2017**

FUNDS RECEIVED FROM FNDE UNDER PNAE	RIO GRANDE DO SUL		SÃO PAULO		BAHIA	
	% munic.	% spent on FF*	% munic.	% spent on FF	% munic.	% spent on FF
Up to BRL 100 000	63	51	23	26	2	13
BRL 100 000.01 to BRL 200 000	13	47	23	27	15	25
BRL 200 000.01 to BRL 500 000	12	48	22	23	47	26
BRL 500 000.01 to BRL 1 million	7	45	15	24	23	24
Over BRL 1 million	5	39	15	18	12	29
Total	100	-	100	-	100	-

Note: * calculated by dividing the total resources received by all municipalities that make up the stratum by the amount spent on family farming (FF) products by all these municipalities.

Source: authors' elaboration based on Brazil, FNDE, 2017.

The differences between the three states with regard to the distribution of municipalities according to PNAE funds received are evident. The next question is: are there differences in the levels of purchasing from family farmers between the different strata? This question is directly related to the hypothesis formulated: the level of purchasing from family farmers is influenced by the size of municipalities (measured as the amount of funds received from FNDE), that is, the larger the municipality, the more difficult it is to introduce family farming products in school meals and, therefore, the lower the share of purchases from this category.

Considering this hypothesis, Table 7 shows that in Rio Grande do Sul, the variation in purchases from family farmers between the stratum of municipalities with the highest purchases and that with the lowest purchases was 12 percentage points. In São Paulo, the difference is 9 percentage points, and in Bahia 16 percentage points. In Rio Grande do Sul and São Paulo, the smallest municipalities spend most on

family farming products (51 and 26 percent, respectively), while in Bahia the largest municipalities spend more on those products (29 percent). In conclusion, differences in the levels of purchasing from family farmers in the three states do not seem to be directly associated with the amount of funds received by local governments.

Table 8 presents the share of municipalities that did not spend any resources on family farming products in 2017, per stratum of funds received. The table shows that the bulk of municipalities (in both absolute and relative terms in Rio Grande do Sul and São Paulo, and in relative terms only in Bahia) that do not purchase products from family farmers receive funds of up to BRL 100 000. However, the percentage of municipalities within this first stratum varies considerably between the three states, with the highest percentage in São Paulo. In that state, a total of 123 municipalities (distributed across different strata) did not buy from any products from family farmers. Meanwhile, in Rio Grande do Sul, only eight municipalities did not procure any food from family farms in 2017, five of them being smaller municipalities. In Bahia, only 30 municipalities did not purchase food from family farms; while the percentage in the first stratum is high, few municipalities in absolute terms are in this condition.

Table 8 **Municipalities that did not purchase any family farming products for school meals per stratum of funds received from FNDE under PNAE, 2017**

FUNDS RECEIVED FROM FNDE UNDER PNAE	RIO GRANDE DO SUL		SÃO PAULO		BAHIA	
	%	N.	%	N.	%	N.
Up to BRL 100 000	2	5	31	45	20	2
BRL 100 000.01 to BRL 200 000	0	0	17	25	6	4
BRL 200 000.01 to BRL 500 000	2	1	16	23	8	15
BRL 500 000.01 to BRL 1 million	3	1	12	12	5	5
Over BRL 1 million	4	1	17	18	8	4

Source: authors' elaboration based on Brazil, FNDE, 2017.

Table 9 presents the number of municipalities that did not purchase any family farming products in 2017 per stratum, in both absolute and relative terms. The table shows that 161 municipalities in the three states did not purchase any food from family farmers. Most of these municipalities are in the first stratum (receiving up

to BRL 100 000). Nearly three quarters of all municipalities that did not purchase anything from family farmers are in the first three strata (receiving up to BRL 500 000). Nevertheless, the density of municipalities that did not purchase products from family farming in other strata cannot be ignored.

Table 9 **Distribution of municipalities that did not buy family farming products for school meals across strata, in absolute and relative terms, 2017**

	NUMBER	%	% CUMULATIVE
Up to BRL 100 000	52	32	32
BRL 100 000.01 to BRL 200 000	29	18	50
BRL 200 000.01 to BRL 500 000	39	24	75
BRL 500 000.01 to BRL 1 million	18	11	86
Over BRL 1 million	23	14	100
Total	161	100	

Source: authors' elaboration based on Brazil, FNDE, 2017.

In conclusion, the data presented in Section 4 refute the initial hypothesis; the size of municipalities (measured as the amount of FNDE funds received under PNAE) is not directly related to the share of funds spent on family farming products for school feeding.

14.5 Conclusion

With the creation of the Food Purchase Programme (PAA) in 2003 and the change of PNAE in 2009, the Brazilian government has demonstrated that the state can build local markets for family farmers. This chapter analyses whether municipal governments have complied with the requirement set by Law No. 11.947 of 16 June 2009 (Article 14) that at least 30 percent of FNDE funds for school food purchases must be spent on family farming products – in other words, how successful PNAE has been at integrating family farmers into this institutional market.

The results indicate that family farmers still hold an insufficient share of this market, as nearly half of all municipalities have so far failed to reach the 30 percent required

by law. However, shares are increasing, both nationally and within regions. The number of municipalities that have begun to acquire family farming products for school feeding is rising, as are the average shares of purchases from family farmers in total purchases and the number of municipalities with a growing share of family farming purchases. Importantly, there are notable differences between Brazilian regions. Until 2017, the South Region was the only region that met the legally required minimum of 30 percent.

At the beginning of this chapter, the hypothesis was made that larger municipalities (measured in terms of the amount of FNDE funds received) would spend a smaller share of their funds on family farming products for school meals due to logistical difficulties, the need for large volumes and the number of family farmers required to form a supply base. However, the data discussed in this chapter refute this assumption: the inclusion of family farming products in public purchases for school feeding was not found to depend on the size of municipalities (in terms of the amount of FNDE funds received).

While the present analysis does not shed any further light on the factors that may affect PNAE's success at integrating family farmers in school food markets, it is worth considering the challenges currently facing the programme. First, public officials in several states in Brazil have shown a lack of "appetite" to boost purchases from family farmers, in spite of the growing coverage of PNAE. Second, a number of members of the Brazilian National Congress have proposed shutting down the programme, or at least abolishing the requirement to source 30 percent of foods from small-scale farmers based on the argument that it distorts the market. Third, there are concerns that the Brazilian national Government is planning to cut, or at least slow down, the Food Purchase Programme (PAA) by dismantling its budget and thus making it inoperable (Sabourin *et al.*, 2020).

The literature and data examined in the preparation of this chapter suggest that there are "social mediators" and "political entrepreneurs" (Kingdon, 1984) who support PNAE and back the creation of markets for family farmers, and are committed to building connections between social actors. These mediators and entrepreneurs support the organization and structural strengthening of family farming, and are open to dialogue with school managers and nutrition personnel. These elements are

likely to have larger impact upon the implementation of Law No. 11.947 than the size of municipalities.

Importantly, the share of family farming products in purchases for school meals is still relatively low, and only few municipalities spend a minimum to moderate share of their funds on these products. Nevertheless, an important body of literature is absolutely clear about the significance of the results and changes since the creation of PNAE in 2009. Political changes resulting from the 2016 municipal elections seem have influenced the decision to include family farmers in public procurement. While a number of cases of corruption in bidding processes have led to the reinforcement of cautions in municipal bureaucracy, public purchasing from family farmers in Brazil is on the rise – an example of the “public plate” contributing to local development.

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LEGAL INSTRUMENTS

Brazil

Resolução/CD/FNDE No. 4, de 2 de abril de 2015. Altera a redação dos artigos 25 a 32 de Resolução/CD/FNDE N° 26, de 17 de junho de 2013, no âmbito do Programme Nacional de Alimentação Escolar (PNAE) (Resolution No. 4 of 2 April 2015. Changes the wording of articles 25 to 32 of Resolution/CD/FNDE No. 26 of 17 June 2013, within the scope of the National School Feeding Programme [PNAE]).