

## The Powerful Coaction of Brazil's National School Feeding Program

### Abstract

*The role that food plays in a child's capacity for success is well established. While many developed countries falter, Brazil's comprehensive school feeding program continues to advance and become more substantive. Through historic participatory and interdisciplinary coaction between governments and civil society, Brazil has legislated right to food policies that ensure continued funding for free universal school feeding programs (SFPs). These policies have radically improved the food security and health of school aged children, while also supporting a sustainable local food system. By mandating that 30 percent of the program's food be purchased directly from local small-scale family farmers (FFs), these policies have created an integrated system that jointly prioritizes the health of school aged children and values the livelihood of FFs. Brazil offers a valuable framework for policy and programing development to countries that are just beginning to appreciate the importance of food system policies and national SFPs.*

**KEYWORDS:** Zero Hunger strategy (*Fome Zero*); Brazil's school feeding programs; small-scale family farmers; food security

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### 1. Introduction

The quality, and even the mere existence, of SFPs varies dramatically around the world. The role that food plays in a child's capacity for success is well established and the importance of national SFPs is clear. While many developed countries falter, Brazil's comprehensive school feeding program, which has been in existence for over 60 years, continues to advance and become more substantive. Historic participatory and interdisciplinary government coaction has fostered innovate policies under the Zero Hunger (*Fome Zero*) strategy that support and integrate multiple programs jointly prioritizing the health of school children and the livelihood of FFs.

Zero Hunger is the Brazilian Federal Government's strategy that ensures the right to adequate food, driving the policies that support programs including the school feeding and small-scale family farming programs (Rocha, 2009). The Zero Hunger strategy was established in 2003,

but its policies have their roots in Brazil's National School Feeding Programme (*Programa Nacional de Alimentação Escolar – PNAE*), which began almost fifty years prior in 1955 (Portal do FNDE, 2012). It is these policies, as refined through the Zero Hunger strategy, coupled with the prominence of the PNAE, that have enabled the fundamental changes that have positively impacted Brazil's food system and the food security of its people. Zero Hunger's integrative system based strategies offer countries that are just beginning to appreciate the importance of national food system policies, a compelling framework for policy and programing development.

## **2. The evolution of Brazil's National School Feeding Programme**

In 1955 the National Commission for Food (*Comissão Nacional de Alimentação*) created the National Company for School Feeding (CNAE) to address critical levels of child hunger and malnourishment in Brazil. A federal government program, the CNAE received almost all of its food from international aid organizations, such as the United Nations Children's Fund (UNICEF) and the United States Agency for International Development (USAID). But food supplies were unreliable, inadequately distributed, and culturally unsuitable (Peixinho, 2013 from Soares, 2013). In the 1970s the CNAE began replacing the tenuous international food aid with food from large national food companies, changing the school food supply into one consisting largely of processed foods (Peixinho, 2013 from Soares, 2013). Shortly after, in 1976, the CNAE was reorganized into the Second Food and Nutrition National Programme (II PRONAN) with a goal to supplement 15 percent of the diet of children enrolled in public school, particularly in the poorest areas; and in 1979, when II PRONAN was renamed to become the PNAE, the diet supplementation was extended to include workers, mothers, and young children (Peixinho, 2013 from Soares, 2013).

### **2.1 Policy groundwork**

At this time, the PNAE proposed a collection of innovative food system policies that seemingly established the groundwork for the policies and programs of the Zero Hunger strategy that would come some 25 years later. The policies included incentives for the production of basic food goods; regulation of the food supply chain; food purchases from local farmers; mechanisms to ensure lower food prices; and interministerial coordination. Ultimately, due to a lack of budgetary allocation and political support, the policies failed to initiate a substantial transformation of the work of the PNAE (Schmitz, 1997 from Soares, 2013). In 1988 the discourse was empowered when the Brazilian Constitution codified the universal right to free school meals for public primary school students, followed by funding decentralization in 1994, when municipal and state governments were granted the authority to manage the federal government resources allocated to school meals locally (FND, 2009 from Soares, 2013).

### **2.2. Hunger and food insecurity in Brazil**

In 2000 the United Nations established the Millennium Development Goals, which included specific goals and targets to eradicate extreme poverty and hunger. At that time, 12.3 percent (or 21.4 million) Brazilians were undernourished (consuming insufficient calories to meet the energy requirement for an active and healthy life); 9.9 percent were living on less than \$1.25 per day (measured at 2005 international prices); and 24.7 percent were below the national poverty line (United Nations Statistics Division, 2015). Highlighting an urgent need to address food

insecurity in school and pre-school age, in 1996, 13.5 percent of Brazilian children under five were stunted (low height for age), which indicates nutritional imbalance and malnutrition, and is recognized internationally as an important public-health indicator for monitoring health in populations (FAO, 2015a).

### **3. Food in all policies**

In response to the Millennium Development Goals and the high prevalence of poverty, hunger, and malnutrition throughout Brazil, newly elected President Luis Inácio Lula da Silva introduced the Zero Hunger program, later to become the Zero Hunger strategy in 2003. The Zero Hunger strategy supported the PNAE and reinforced the policies proposed in 1979: production of basic food goods; regulation of the food supply chain; food purchases from local farmers; mechanisms to ensure lower food prices; and interministerial coordination (Soares, 2013). Many of these policies became a functioning reality with the introduction of the Food Purchase Programme (*Programa de Aquisição de Alimentos – PAA*) as part of the Zero Hunger strategy.

#### **3.1 Supporting sustainable livelihoods of small-scale family farmers**

In 2009 the approval of the School Feeding Law saw the National Fund for Education Development (*Fundo Nacional de Desenvolvimento da Educação – FNDE*) mandate that 30 percent of the food for the PNAE school meals be purchased directly from FFs and family rural entrepreneurs (Soares, 2013). This strategically synergistic system created a structured demand that improved the resilience and viability of FFs, and increased the capacity and coordination of small farmer associations. Typically, government purchasing must be done through a bid process where contracts are awarded to the lowest cost bid, but the 30 percent purchased for the PNAE is acquired through an alternative procurement and costing structure. Through this process, the FNDE determines and sets the fair market price for a product. The farmers' association then facilitates the purchase with FFs who are growing that crop. What crops farmers grow and who is eligible for purchases is controlled through participatory union governance of the farmers' association, crop/season rotation, and PAA revenue caps of 20,000\$R per year (Leonardo Ciuffo Faver, *Secretário da Agricultura de Petrópolis* & Paulo Sergio, *Secretaria de Estado de Agricultura e Política Rural*, personal communication, August 15, 2015). The PAAs policies also include incentives to increase the participation and success of self-employed, small-scale women farmers (Soares, et al 2013).

This alternative process has caused a resurgence of crops that had been previously abandoned due to the inability of FFs to compete with the low cost of products produced by national and international industrial farms. As an example, FFs in the region surrounding the city of Petropolis had totally abandoned growing potatoes after being priced out of the market by large industrial farms. The PNAE demand for local foods from FFs created a new market for potatoes grown in Petropolis (Leonardo Ciuffo Faver, *Secretário da Agricultura, Abastecimento e Produção de Petrópolis* & Paulo Pedroza Aguinaga, *Departamento de Desenvolvimento Rural*, personal communication, August 15, 2015).

#### **3.2 Federal funding inadequacies**

This structured demand system exists because of the purchasing power that results from the PNAEs 30 percent requirement. In 2014 the PNAE served 42.2 million students, with financial resources totaling US\$3.7 billion. Of this, US\$1.1 billion was allocated to go to small-scale FFs in Brazil (FNDE, 2012). Although 30 percent of PNAE funds should be allocated to FFs, actual totals regularly fall short of this (Swensson, 2015). The most frequent challenge reported by implementing agencies for missing these targets is that local administrators, nutritionists, and school cooks lack the appropriate knowledge and preparation required (Swensson, 2015). Arguably, inadequate funding for needs beyond food can also be impediments to the successful implementation of the PNAE. Federal funding can only be used for food, leaving municipal governments responsible for the capital and labour costs required to run SFPs successfully. Capital and labour costs make up almost 50 percent of the total program costs, and regions where municipal funding is lacking often fail to meet program requirements and goals (Rocha, 2009).

In the state of Minas Gerais, SFPs employ approximately 60 trained government regulated nutritionists. Of that, 56 of them are located in the city of Belo Horizonte (nutritionist, *Umei Timbiras, Unidade Municipal de Educação Infantil*, personal communication, August 10, 2015). In Minas Gerais, nutritionists are each responsible for over 500 times the number of students that nutritionists in Belo Horizonte are responsible for (OECD, n.d. & IBGE, 2014). In 2008 the Belo Horizonte municipal government spent over US\$1 million on SFPs (Rocha & Lessa, 2009). Clearly, the additional municipal funding in Belo Horizonte results in a higher program capacity, supporting the labour and capital requirements needed to prepare food cooked from scratch using whole ingredients. With the necessary staff and equipment, the SFPs in Belo Horizonte are readily purchasing from FFs. Other municipalities in Minas Gerais that are not as well funded often rely on pre-prepared and processed meals for their SFPs (nutritionist, *Umei Timbiras, Unidade Municipal de Educação Infantil*, personal communication, August 10, 2015).

### **3.3 A system based approach**

Municipal funding in Belo Horizonte ensures that sufficient resources and staff are allocated to the school feeding program, providing the structured and organized implementation essential to the efficiency and efficacy of the program. Execution of the program begins with the Municipal Secretariat who prepares a monthly menu that is used in all schools. This centralized planning system ensures nutritional adequacy of the meals and reduces the cost by enabling non-perishable ingredients to be purchased in aggregate. These ingredients are delivered to the schools, and individual institutional directors purchase the perishable ingredients from FFs through local markets. Food is delivered to school cooks who are trained by the municipal government to monitor quality and to mitigate food waste through preservation and substitution, and then cooked in well-equipped and maintained kitchens (nutritionist, *Umei Timbiras, Unidade Municipal de Educação Infantil*, personal communication, August 10, 2015). This highly organized system relies on the expertise of the Secretariat, institutional directors, school cooks, and nutritionists who all play a role in the success of the PNAE.

## **4. Addressing the social, environmental, and economic considerations**

Belo Horizonte's 56 nutritionists are integral to the logistical and nutritional outcomes of the programs. The primary objective of the PNAE has always been to fight hunger and malnutrition

in children (Chmielewska & Souza, 2011). This responsibility is well suited to the traditional nutritionist role, but nutritionist education and training in Brazil has evolved. Nutritionists now learn a system approach that uses a sustainability model addressing social, environmental, and economic considerations (nutritionist for *Umei Timbiras, Unidade Municipal de Educação Infantil*, personal communication, August 10, 2015). The 2009 School Feeding Law recognized the positive bio-psycho-social development, learning, school performance and nutritional habit outcomes that can arise in the presence of substantive SFPs, and the role of nutritionists has transformed from developing school menus to implementing all aspects of the program, including food literacy education (Chmielewska & Souza, 2011). Success of this new approach is clear; students in pre-schools in Belo Horizonte start serving and feeding themselves at two years of age, an act that promotes autonomy and independence in the children, and reduces food waste (nutritionist, *Umei Timbiras, Unidade Municipal de Educação Infantil*, personal communication, August 10, 2015).

#### **4.1 Right to *nutritious* food**

Since 1988 SFPs in Brazil have been a universal right for all students enrolled in public primary school, but the School Feeding Law expanded the program's reach to include basic education programs for all students from six months of age to high school, including philanthropic and community education, special education, and adult education (Sidaner, Balaban, & Burlandy, 2012). The law also mandated quality specific nutritional guidelines for school meals, requiring 350kcal and 9g of protein per meal (Rocha, 2009), with part time students receiving 20 to 30 percent of their daily nutritional needs through one to two meals, and full time students receiving three meals and a snack, totaling 70 percent of their daily nutritional needs (Sidaner, Balaban, & Burlandy, 2012). The law also obligates the recognition and incorporation of traditional practices and local eating preferences into menus; the inclusion of at least three portions of fruits and vegetables per week; maximum amounts for added sugar, fat, saturated fat, and salt; and restriction of soft drinks and processed foods with high levels of sodium and saturated fats (Sidaner, Balaban, & Burlandy, 2012).

#### **4.2 Dramatic improvements in food security**

Since the Millennium Development Goals and the subsequent Zero Hunger strategy were established, there are 60 percent less Brazilians who are undernourished (as of 2015); 62 percent less who live on less than \$1.25 per day (as of 2012); 64 percent less who are below the national poverty line (as of 2013); and 45 percent less children who have stunted growth (as of 2007, compared to 1996) (United Nations Statistics Division, 2015 & FAO, 2015a). The Zero Hunger strategy has improved these important food security indicators, decreasing hunger, food insecurity, and poverty in Brazil significantly. The PNAE's SFPs have been a significant driver of these changes, reducing the estimated prevalence of undernourishment in the country by one third, and it has supported the growth and viability of family farming, which accounts for 70 percent of the food consumed in the country (FAO, IFAD, & WFP, 2014).

## **5. Embedding right to food policies into long-term government agendas**

The successful institutionalization of the national school feeding program in Brazil has not gone unnoticed. In 2015(b), the FAO detailed the case of Brazil, offering specific recommendations for countries to successfully introduce or strengthen the sustainability of these programs by focusing on elements that embed right to food policies into long-term government agendas across departments. The scope of SFPs varies significantly from country to country. While some programs are national, universal, and free – offering nutritious food from FFs, others are fractured and inadequately funded, singling out the poor and offering highly processed foods in place of local and nutritious foods. By implementing an integrated system using a sustainable framework sourcing from FFs, SFPs are able to support viable livelihoods while dramatically improving food security among children, which remains pervasive in both developing and developed countries (FAO, 2015b & United Nations Statistics Division, 2015).

## **6. Conclusion**

Linking PAA and PNAE has been integral to the success of both programs. Hunger, undernourishment, food insecurity, and poverty have decreased; consumption of fruit and vegetables has increased (Sidaner, Balaban, & Burlandy, 2012); the cost of school meals has decreased (Sidaner, Balaban, & Burlandy, 2012), the number and viability of FFs has increased; and the local economy is experiencing the positive outcomes of the local food multiplier effect (Sidaner, Balaban, & Burlandy, 2012). These successes are resonant of the food system policies introduced in 1979, and a result of Brazil's comprehensive and intersectorial program and policy approach.

Through participatory and interdisciplinary coaction between governments and civil society, Brazil's national school feeding program has developed from an international aid response addressing critical levels of child hunger and malnourishment, to one that legislates the universal right to free school meals for all children. This free, nutritious, and culturally relevant program has radically improved food security and related health outcomes. Policies recognizing the right to food have been essential to ensuring the continued funding of SFPs and to supporting a sustainable local food system that values the livelihood of FFs. While many countries are just beginning to appreciate the importance of national food system policies, Brazil offers a valuable framework for policy and programing development.

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