

**From Food Security to Food Sovereignty: The
Fome Zero Food Acquisition Program in the
Pontal do Paranapanema, Brazil**

by

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Abstract

This thesis explores the role of Brazil's Food Acquisition Program (Programa de Aquisição de Alimentos, PAA) in facilitating food security and food sovereignty. It specifically explores how this government program sources local food from smallholder farmers on agrarian reform settlements in the Pontal do Paranapanema region of São Paulo state to feed local, food vulnerable, populations. This thesis explores the incentives and challenges associated with such a project for both smallholder farmers and government agencies and to what extent the program incorporates elements of a food sovereignty framework. This thesis will also explore the significance of a transition from a neoliberal globalized food regime towards a localized food sovereignty regime in the region's rural communities. Utilizing a qualitative methodological approach, this thesis employed semi-structured interviews with program participants and non-participants to analyze the structure and impacts of the program.

Key Words: Food Sovereignty; Food Acquisition Program; Agrarian Reform; Brazil

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Glossary

ATER	Technical Assistance and Rural Extension (<i>Assistência Técnica e Extensão Rural</i>)
CONAB	National Supply Company (<i>Companhia Nacional de Abastecimento</i>)
CPT	Pastoral Land Commission (<i>Comissão Pastoral da Terra</i>)
DAP	Declaration of Fitness for PRONAF (<i>Declaração de Aptidão ao PRONAF</i>)
FAO	Food and Agriculture Organization
GMO	Genetically Modified Organism
INCRA	National Institute of Colonization and Agrarian Reform (<i>Instituto Nacional de Colonização e Reforma Agrária</i>)
IPÊ	Institute of Ecological Research (<i>Instituto de Pesquisas Ecológicas</i>)
ITESP	São Paulo State Land Institute (<i>Fundação Instituto de Terras do Estado de São Paulo</i>)
MAPA	Ministry of Agriculture, Livestock, and Supply (<i>Ministério da Agricultura, Pecuária e Abastecimento</i>)
MDA	Ministry of Agrarian Development (<i>Ministério do Desenvolvimento Agrário</i>)
MDS	Ministry of Social Development and the Fight against Hunger (<i>Ministério do Desenvolvimento Social e Combate à Fome</i>)
MST	Landless Rural Workers Movement or Landless Movement (<i>Movimento dos Trabalhadores Rurais Sem Terra</i>)
PAA	Food Acquisition Program (<i>Programa de Aquisição de Alimentos</i>)
PNAE	National School Nutrition Program (<i>Programa Nacional de Alimentação Escolar</i>)
PNATER	National Technical Assistance Program (<i>Programa Nacional de Assistência Técnica</i>)
PRONAF	National Program to Strengthen Family Agriculture (<i>Programa Nacional de Fortalecimento da Agricultura Familiar</i>)
PT	Worker's Party (<i>Partido dos Trabalhadores</i>)
SISAN	National Food Security and Nutrition System (<i>Sistema Nacional de Segurança Alimentar e Nutricional</i>)

Chapter 1

Introduction

In 2009, 65.6 million Brazilians (about 30% of Brazilian households) were in a state of food vulnerability, defined as not having regular access to a sufficient quantity or quality of food; of these, over 11 million were in states of extreme food vulnerability and hunger (IBGE, 2010). In contrast to food vulnerability, food security is defined by the Food and Agriculture Organization (FAO) of the United Nations as occurring when “all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life” (2010).

Despite its situation of food vulnerability, Brazil is actively engaged in a food security and agricultural production model that some argue is contradictory to its goals to reduce food vulnerability (Rosset 2006b; Wittman, Desmarais, & Wiebe, 2010; Desmarais 2007). Since the late 1980s, Brazil has been among the most radical promoters of a neoliberal, export-oriented food regime connected to a global food system model (Pechlaner & Otero, 2008, 2010; McMichael, 2004, 2009a). The regime promotes the commoditization of food, re-routing agricultural production and supplies through corporations and allowing market mechanisms to regulate the food supply. A community’s food security is not sourced from within the community itself but instead through a supply chain orchestrated from afar. Many argue that the current, neoliberal food regime has only worsened the world’s state of food vulnerability (Bello, 2008; McMichael, 2009b; Rosset, 2006a, 2008). In 2010, at the same time as a third of the country was in a state of food vulnerability, Brazil’s agricultural exports accounted for \$55 billion of \$195 billion (USD) total exports (IBGE, 2010; US State Department, 2011). The persistence of food vulnerability in Brazil into the 21st century reflects

the inability of the current food regime to address the structural causes of food vulnerability and hunger.

Since 2003, however, the Brazilian government has experimented with a new approach to resolving food vulnerability that challenges the neoliberal food regime's approach. The Brazilian government has taken an active interest in pursuing food sovereignty (Ximenes & Scorza, 2010), a framework developed by the international movement of peasants, smallholder farmers, and indigenous peoples, La Vía Campesina, to end food vulnerability and social injustice by concentrating on bringing markets, production modes, food cultures and environments back into local and national control (Desmarais 2007; Rosset 2006b; Wittman, Desmarais, & Wiebe 2010). Additionally, in 2010 the Brazilian government made food a basic human right in its constitution (de Schutter 2009, 2010; Franceshini, Burity & Cruz 2010). The Brazilian government has also focussed on eliminating hunger by investing in several public initiatives under the umbrella Zero Hunger Program (*Programa Fome Zero*). In particular, the government has focussed on promoting public food procurement programs that support creating and expanding local food systems.

This thesis will explore how one Fome Zero program, the Food Acquisition Program (*Programa de Aquisição de Alimentos* or the PAA), sources local food from smallholder farmers in the Pontal do Paranapanema region of São Paulo state. I analyze the case of the PAA in the Pontal to examine to what extent it challenges the neoliberal approach to food security and to what extent it fits within a food sovereignty framework. The Brazilian government has increasingly used the food sovereignty discourse to frame both the Fome Zero program and particularly the Food Acquisition Program (Ximenes & Scorza 2010; Ximenes 2011; Fome Zero 2011); therefore, it is important to specifically explore to what extent the Brazilian government engages with the framework as developed by its founders, La Vía Campesina.

In the first section of this thesis, I will explore the discourse surrounding food security within food regimes in Brazil in order to highlight the contrast

between previous food security approaches and a new approach, which is the subject of this thesis. I will use this approach to build the conceptual framework of the thesis. The food regime analysis, first articulated by McMichael and Friedmann (1989), provides a useful tool of analysis to explore the complex political, social, economic, and ecological webs that surround food vulnerability. A food regime is the concept used to examine the political and economic nexus strengthened or legitimized by global moments of stability within the world food system's history (Fairbairn, 2010, p. 16). Friedmann notes that one can observe food regimes in three key areas: the mode of production used to produce food; the power relations that facilitate production; and finally, the patterns of diet and consumption within a specified area (1995, p. 17). Food regimes evolve over time, shifting only when a period of crisis forces a transition into a different model. Prior to the current neoliberal food regime, for example, the postwar food regime promoted food security as a tool for industrialization efforts (Friedmann & McMichael, 1989; Fairbairn, 2010). It is still a matter of contention as to whether or not we are in a period of crisis following the collapse of the postwar regime in the 1970s or if we are in a consolidated food regime – the neoliberal food regime (see McMichael, 2009a). This thesis, however, will recognize that we are in the midst of a consolidated neoliberal food regime.

I contend that in order to understand why food vulnerability persists in Brazil today, it is essential to examine its past and current relationships with trends in the global political economy of food. The following review will explore this discourse by exploring Brazil's food regime evolution beginning in the 1960s, with a particular emphasis on the most recent food regime incarnation, the corporate or neoliberal food regime (McMichael, 2009a; Pechlaner & Otero, 2008, 2010). This thesis will also explore the rising advocacy for a new food regime focused on food sovereignty that stresses the importance of resolving the social injustices that activists claim manifest in food vulnerability.

Food Regimes in Brazil

The Postwar Regime in Brazil

This section will explore the conditions that led to Brazil's transition from the postwar regime to the current neoliberal food regime and specifically explore the technological paradigms that defined the postwar regime. In Brazil, the postwar food regime was characterized by the industrialization of agriculture, economic regulation, and agro-exports to finance development (Fairbairn, 2010, p. 17). Although Brazil was built on export agriculture, the 20th century technological innovations introduced during the postwar food regime drastically altered production and perpetuated colonial inequalities even into the 21st century. When the Brazilian military came to power in a 1964 coup d'état with help from the US government and Brazil's large landholders (*latifundiarios*), support for industrialized agriculture was a key element of economic and political policy. The First Green Revolution in Brazil began in the 1960s when the extensive use of petrochemical fertilizers, pesticides, and herbicides was advocated in developing countries to grow monocultures more 'efficiently' and increase production.

The Brazilian military regime intended to use the export earnings of increased agricultural production to fund Import Substitute Industrialization (ISI) plans. In the 1970s, the military regime made available high levels of credit for Green Revolution innovations to large property owners and agribusiness. This doubled the number of tractors and quadrupled the use of chemical inputs, subsequently reducing dependence on manual labour (Welch, 2006, p. 37). For example, one sugar cane mechanical harvester could replace up to 120 rural workers (Welch, 2006, p. 46). Additionally, mechanization helped quash growing unionization efforts by rural workers by effectively eliminating rural and agricultural jobs. Smallholder farmers found the inputs and technology too expensive to adapt to their own small farms and could not compete with the large

landholders who, with technology and access to more flexible credit, could produce commodities at lower prices.

Unable to find employment and with diminishing access to land, rural labourers, sharecroppers, and smallholder farmers had no choice but to leave the countryside, causing “de-peasantization” (Araghi, 1995) and further land concentration. A rural exodus led to a spike in urbanization from 30% in 1940 to 86% by 2008 (IBGE, 2010; UNICEF, 2010). In the 1960s, between 12.8 and 13.8 million people left rural areas; and in the 1970s, between 15.6 and 17.4 million people left rural areas in Brazil in search of job opportunities and a better life (Perz, 2000, p. 850). Those who remained in the countryside found themselves in increasingly temporary and unsafe work environments. In 1967 1.4% of rural properties had over 1000 hectares and occupied 48.9% of all arable land while smallholders (with 100 hectares or less) held just 18.7% of the arable land despite accounting for 86.4% of all properties (Welch, 2006, p. 40). The military regime set up colonization projects in frontier areas to resettle the excess population but extensive, redistributive, agrarian reform never occurred under this regime. Pressure from social movements (to be discussed later in this chapter) forced the government to address land concentration issues in part; however, extreme land concentration still exists in Brazil. By 2006, 1% of the largest landholders held 43% of the land (5% of the largest landholders held 68.4% of the land) while 50% of the smallholder farmers held just 2.7% of the land (Hoffman and Ney 2010, 45-54)

While the First Green Revolution did aggregate levels of agricultural production in Brazil, over time it became apparent that these innovations also came with problems. These inputs were often petroleum-based, meaning that their prices depended on the fluctuating global price of oil. Additionally, more of such inputs, sometimes double the amount previously used, were necessary each year in order to maintain the initial high yields (Madeley, 2002; Roberts, 2008). As soil consists of many living organisms, replacing their food with artificial inputs has had detrimental impacts like soil erosion and vulnerability to

disease and pests (Howard, 1947). The cycle of dumping more fertilizers and therefore, more money, on the land in order to maintain the same yield as before is known as 'involution' (Holt-Giménez, 2006, p. 152). Once soil erosion occurs, it is difficult and time-consuming to nurture the fragile soils back to health by less costly organic means. Crop diversification, bio-diversity and soil nutrition are also threatened by the tendency to plant monocultures using this production model. The postwar food regime and its aggressive use of the First Green Revolution innovations ultimately contributed to a deepening of rural poverty that has existed in Brazil since its inception (see Davis, 2001 and de Castro, 1952), increased unemployment, and unequal development.

The Debt Crisis and the Transition to the Neoliberal Food Regime

Accompanying this transition in agriculture and urban migration, Brazil fell further into debt while industrializing its economy. Although Brazilian agricultural exports grew eightfold from the 1970s until 1980, it was not enough to offset the debt incurred in the 1960s and 1970s by the Brazilian government with its Import Substitution Industrialization (ISI) policies (Welch, 2006). A global credit crunch in the 1980s meant lenders would not continue to credit their borrowers without exorbitantly high interest rates. To manage the debt, Brazil and other states turned to neoliberal policies and Structural Adjustment Programs (SAPs) by the International Monetary Fund (IMF) and World Bank. SAPs allowed governments' access to new loans or to lower interest rates on existing loans. The SAPs mandated dramatic cuts to state spending and investment, particularly in social programs (Bello, 2008). Additionally, trade liberalization was encouraged to promote the free-flow of goods unavailable within the country itself but as Pechlaner and Otero note, the conditions of this liberalization can be selective and unfavourable to less powerful economies (2008).

These drastic economic changes contributed to the fall of the military regime that was simultaneously coming under pressure from the Brazilian people for democratic elections with the *Diretas Já!* (Direct Elections Now!) campaign

(Smith, 2005, p. 119-121; Garretón, 2003, p. 50). The successive governments maintained the SAPs and continued to practice neoliberal policies prescribed by the IMF in order to renegotiate Brazil's excessive debt. The government continued to encourage large landholders and agribusiness by neoregulating prime production and export conditions, this time seeing agro-exports as a way to pay off the country's excessive debts (Welch, 2006). Subsequent democratically elected governments (including the Cardoso and da Silva regimes), continued to implement neoliberal policies, particularly in agriculture (Busch, 2010, p. 338). The debt crisis and Brazil's subsequent policies signalled Brazil's transition towards the neoliberal food regime.

The Neoliberal Food Regime and Agricultural Production in Brazil

This section will explore the economic, social, and ecological implications of the neoliberal food regime in Brazil since it began in the 1980s. In the neoliberal food regime, food is produced and distributed with harmonized production standards and within globalized supply chains that encourage substitutability (Pechlaner and Otero 2008, 2010). Other names that have been used to designate this regime include the corporate regime (McMichael 2004, 2009a) or the corporate-environmental regime (Friedmann 2005). All three regime approaches contend that the consolidated food regime is centred in a neoliberal paradigm that advocates the systemic restructuring of agro-industry where the state pro-actively dismantles the barriers to capital flow to ease the dominance of private sector agents in production and supply chains (McMichael 2009a; Pechlaner & Otero, 2010). Specific to Pechlaner and Otero's neoliberal regime, however, is the adaptation of neoregulation and biotechnology (2008, 2010), allowed in Brazil since 2003.

To reduce its debt to the IMF and World Bank, the Brazilian state played a pro-active role in facilitating conditions for neoliberal policies, the conditions for increased agro-exports, further subsidizing monoculture commodities with large landholders and agribusiness. The country invests heavily in large-scale export

agriculture while smallholder farmers receive substantially less investment. For example in 2008/2009, agribusiness and large landholders received roughly 65 billion *reais* (\$38 billion CDN) in funding and credit while smallholders (*agricultura familiar*) received just 13 billion *reais* (\$7.6 billion CDN) through programs like the agrarian reform rural credit bank PRONAF (*O Programa Nacional de Fortalecimento da Agricultura Familiar* or the National Program to Strengthen Family Agriculture) (Andrade, 2008, p. 23-25). Brazilian large landholders became so adept at utilizing large tracts of land to produce monocultures like soy or sugar that their model is being exported to developing countries as 'the Brazilian model' (Bello 2009, p. 10). By 2010, Brazil was the number one sugar cane and coffee producer and the number two soybean producer in the world, three of the world's most important global agricultural commodities (FAOSTAT, 2011).

While the neoliberal regime still incorporates the First Green Revolution's innovations, the introduction of Genetically Modified Organisms (GMOs) into commercialization by the 1990s signified the start of what is sometimes called the Second Green Revolution (Steinhart, 1981). Like its predecessor, the Second Green Revolution has significant economic and ecological consequences (Gudynas, 2008; Kloppenburg, 2010). The use of GMOs further deteriorates bio-diversity and diminishes natural resistance to pests and crop diseases. Many question whether it is actually safe to eat something that legally must be labelled as a pesticide (Otero & Pechlaner, 2008, p. 49).

The long-term ecological impacts of this Second Green Revolution are extensive (much like the first) and these costs are often not apparent in the price of food (Patel, 2010). Despite such significant negative ecological impacts, states and private actors both continue to pursue this model to produce agricultural commodities because of the promise of higher yields and therefore, higher profits (Gudynas, 2008). These inputs also create a level of dependency in production on multinational agribusinesses (based largely in the developed world) that control all aspects of production from seeds to fertilizers as well as

their patents (Kloppenborg, 2010; Pechlaner & Otero, 2010). With new pressures to utilize and market its sugar cane production towards agrofuels and not food (Fernandes, Welch & Gonçalves, 2010, Holt-Giménez & Shattuck, 2010; Bello 2009), it is expected that Brazilian agriculture, particularly large producers and agribusiness, will embrace the newly available GMO sugarcane while expanding production (GRAIN, 2009). In fact, Brazil is already one of the top ten biotechnology adopters in the world (Pechlaner & Otero 2010, p. 354). The increased stake of global investors in the sugarcane industry to 20% in 2008 with the expectation for it to increase to 50% by 2020 (Wilkinson & Herrera, 2010) and the increased competition for land to augment commodity production (Novo, Jansen, Slingerland & Giller, 2010) suggests the further embedding of the neoliberal food regime in Brazil.

The Neoliberal Food Regime, Household Food Security and Brazil

This section will explore how the neoliberal food regime's advocacy of a global supply chain alters food security and food culture in Brazil. The industrialization and globalization of agriculture accompanied by free trade has drastically altered how we grow and source food. This regime promotes the commoditization of food: when a product is translated into a standard unit of exchange, losing its characteristics as a differentiated, place-based or socially unique product. With this commoditization, the regime reroutes production through corporations into a global supply chain more easily. However: "Full commodification of land and labour is a utopian project based on belief in the possibility and desirability of a self-regulating market," warns Friedmann. "Because the project is utopian, eventually attempts to expand and deepen the scope of markets cause serious damage to human beings and our habitats" (1995, p. 15). In this regime, governments may outsource control over the food chain to corporate interests regardless of the potential social, economic, or ecological risks.

Within the neoliberal framework, food security “is now a frame about the micro-economic choices facing individuals in a free market rather than the policy choices facing governments,” shifting towards what Fairbairn calls the Household Food Security model (Fairbairn, 2010, p. 24). Household food security is largely about the financial capacity of a household to access food, and not about whether or not they have the right to food. Under this framework, policies seek to ensure that food can be attained cheaply through free markets that allow for comparative advantages and market exchanges (Pechlaner & Otero, 2010). As a result, the state is no longer a guarantor of food security.

In Brazil, the proliferation of supermarkets across the country exemplifies how the neoliberal food regime has also shifted the country closer to a household food security model. Multinational supermarkets including the Wal-Mart and Carrefour chains accounted for 50% of the food sold in Brazil in 2010 (Instituto Humanitas Unisinos, 2011). Smallholder farmers throughout Latin America discovered that they have little or no access to the supply chains of the rapidly expanding supermarkets, that instead prefer globalized supply chains to maintain lower costs and standardized product availability (Timmer, 2008, p. 748). The changing source of products in the increasingly present supermarkets is inadvertently changing Brazilian ‘social relations of consumption’. According to Friedmann these relations are “the daily life experiences of preparing, sharing, and taking meals” (1995, p. 26). Friedmann notes that interruptions in traditional patterns of family and community, such as the urbanization caused in the postwar regime, create new social relations of consumption and often develop a desire for new foods that may not be regional or as healthy. Mintz notes that just a shift in daily routine like a shorter lunch break and its limited options or limited food sources may drastically alter a traditional diet or introduce new more ‘convenient’ food (1995). Wittman, Desmarais and Wiebe (2010) explain:

The globalized food system distances eaters from the people who produce food and from the places where food is produced – literally and conceptually. The more industrialized, processed and distant food is, the less connected to and knowledgeable about it the

consumer becomes. But it also undermines our capacity for making decisions about this key determinant of our lives and our economies (p. 5).

Despite claims that the neoliberal regime and supermarkets create more choice for producers and consumers and better prices (Timmers, 2008), the integration into the globalized supply chain comes at a cost. Prices for both consumers and producers are far from secure within the globalized neoliberal regime. “In a market context, with such inconsistent liberalization the revenues generated from agriculture for export are far from predictable, stable and equitable,” explain Pechlaner and Otero. “Similarly, the cost of purchasing food internationally is equally subject to the vagaries of the market” (2009, p. 79). This means that developing countries, including Brazil, encounter the neoliberal food regime differently than their developed counterparts. Additionally, these countries may not be afforded the same protective mechanisms for consumer or producers against the persistent volatility in the global food market or against the potential price fixing tactics by developed countries like the dumping of subsidized commodities. As evidenced by the World Food Crisis from 2006 to 2008, the neoliberal food regime’s globalized food supply may not work in the favour of many developing countries including Brazil.

The World Food Crisis: the Neoliberal Regime in Crisis?

Friedmann and McMichael (1989) contend that a crisis or a series of crises forces a transition to a new food regime. As highlighted by the previous sections, the transition to the neoliberal food regime occurred in Brazil with the debt crisis of the 1980s. Repeated food crises from 2006 onwards suggest that a forced transition to a new food regime may take place. A food crisis occurs when prices increase significantly in a short period and people must dedicate a substantially larger portion of their income towards purchasing food. In the neoliberal food regime, food crises are often due to harvest failures or increased demand elsewhere. In the crisis starting in 2006, harvest failures, dramatic

increases in demand in the developing world, agrofuels, and rising oil prices compounded to increase food prices 45 percent in under a year and 83 percent over three years (Holt-Giménez & Shattuck 2011, p. 11-12). People in developing countries had to spend a substantial proportion more of their income on increasingly expensive food. Although prices subsided near the end of 2008, another food crisis emerged in 2010. “The [2010 food] price hike is already pushing millions of people into poverty and putting stress on the most vulnerable, who spend more than half their income on food,” acknowledges the current president of the World Bank, Robert Zoellick (quoted in Pooley and Revizin, 2011, p. 8). The crisis also negatively influenced producers who subsequently increased production to take advantage of the high prices. When the crisis subsided, prices fell and producers who expected to profit instead suffered losses (Bello, 2009; Collier, 2008). The repetition of food crises in the neoliberal food regime suggests that the regime’s globalized food supply does not necessarily guarantee its own version of food security.

It is important to note that when food prices went up 83% globally, in Brazil the price of food only went up 25%. This increase was largely due to the dramatic increase in the price of fertilizers and petroleum (Cassal, 2008). The cause of this 58% difference is that Brazil instead sources the majority of its food domestically rather than globally. In particular, Brazil sources most of its food supply from domestic farmers with under 200 hectares (rather than the neoliberal regime’s emphasis on large-scale producers and agribusiness) (IBGE 2006), despite commercialization conditions not regulated in their favour. Even after the aforementioned extensive rural exodus, the remaining smallholder farmers produce 70% of the food that Brazilians eat daily, and on only 30% of the arable land. For example, smallholder farmers produce 87% of cassava production, 70% of bean production, 46% of corn, 38% coffee, 58% of milk, 34% of rice, 59% of pigs, 50% of poultry, 30% of cattle, and 21% of wheat (IBGE, 2006; Rosset, 2006b, p. 315). Unlike many developing countries concentrating on industrialization or export agriculture, from the 1960s onwards Brazil

simultaneously encouraged the use of the Green Revolution in the domestic production of Brazilian staples like rice, tomatoes, and beans by the remaining smallholders for domestic consumption. The government's motive was to reduce the urban cost of living, lowering pressure for higher wages amongst the factory workers while the country industrialized (Welch, 2006, p. 38). While other countries had no choice but to participate fully in liberalized markets to attain food security, Brazil had enough arable land to grow crops for both export and domestic consumption.

It is only because Brazil did not fully adhere to the neoliberal regime's globalized food supply chain that the country was not as vulnerable to the volatile price fluctuations as other parts of the world. In contrast to other developing countries and despite its dramatic increase in agrofuel production, Brazilian food prices did not *appear* to increase as dramatically; however, for regular Brazilians the price increases were far more apparent. Brazilians spend 24.7% of their income on food while Americans spend 5.7% (USDA, 2008). The price increases caused by the crisis were most detrimental for those in food vulnerable situations, which in Brazil was over 65 million people or 30% of all households in 2009, of which 11 million are severely food vulnerable (IBGE, 2009). Without addressing the structural conditions that cause food vulnerability like poverty or unemployment in conjunction with the causes of food shortages or high prices, the contemporary food regime cannot adequately respond to the problem. As evidenced by the social, economic, and ecological problems that emerged in Brazil out of the postwar regime and exacerbated by the current neoliberal regime, Brazil will only encounter more food vulnerability if it follows the neoliberal food regime's course.

A Food Sovereignty Regime

In response to the increasing neoliberalization of food and agriculture and its negative implications, global critiques of the regime have emerged from academics, social movements, and even governments. La Vía Campesina

(translated as 'The Peasant Way') is one of the largest social movements in the world and is comprised of 148 peasant, small farmer and indigenous movements from 69 countries. The movement rallies against the globalization of social injustice and the economic and ecological devastation caused by the neoliberal regime (Desmarais, 2002, 2007; Rosset & Martínez-Torres, 2010; Wittman 2009a, Wittman, Desmarais & Nettie, 2010). With the help of its member social movements, La Vía Campesina developed the concept and framework of food sovereignty in 1996 as a potential alternative to a corporate-led neoliberal food regime (Desmarais, 2007). Their conceptualization of food sovereignty is "the right of each nation to maintain and develop its own capacity to produce its basic foods respecting cultural and productive diversity" (La Vía Campesina, 1996). In a food sovereignty regime, peoples or governments propose their own food policies that prioritize local sustainable production of culturally appropriate and nutritional food rather than allowing an outside entity decide a nation's policy. Although food sovereignty is not yet a food regime, many believe that it has the potential to address the social, economic, and ecological concerns caused or not addressed by the current food regime (Wittman et al. 2010, McMichael, 2010; Fairbairn, 2010; Holt-Giménez & Shattuck, 2011).

The movement for food sovereignty grew partially out of the transition of agriculture into the World Trade Organization (the WTO) (Desmarais 2007; McMichael 2009a; Wittman et al. 2010). Food sovereignty was specifically developed to counter the international neoregulation of food production under the WTO, where food is seen as a commodity. In food sovereignty, food is a right and its nutritive attributes are more important than its tradable value; therefore, proponents of food sovereignty argue that food and agriculture should not be regulated by the WTO (Desmarais, 2007; Rosset, 2006a). La Vía Campesina believes that trade should not displace local production or impose exploitative prices on smallholders like the postwar and neoliberal regimes have done. Additionally, food sovereignty intends to address the social injustices that grew out of the previous food regimes. Instead of a globalized neoliberal food regime,

advocates argue that governments should prioritize national policies that are accountable to communities rather than the WTO or corporate shareholders.

In order to transition to a food sovereignty framework, La Vía Campesina proposes that a government must recognize food as a basic human right, promote agrarian reform, protect natural resources, reorganize food trade to prioritize the local capacity to produce, end the globalization of hunger, and promote democratic practices within agricultural policy (cited in Wittman et al., 2010, p. 197-199). Additionally, food sovereignty advocates the production of food for domestic consumption over the production of tradable commodities. McMichael elaborates on the relation between food sovereignty and food security:

Food sovereignty has emerged in opposition to the subordination of food security to corporate market rule. As such, it has dual meaning: in privileging the political and economic rights of farmers as a precondition of food security, it reformulates the relationship of states to their citizen-subjects. Within the era of corporate globalization, the food sovereignty movement views states as complicit in constructing a world agriculture insisting that the precondition for popular food security is to problematize the vision of the development project that western consumption is a universal desire and peasant cultures are destined to disappear (2004, p. 2)

Proponents of food sovereignty believe that true food security cannot be attained without first having food sovereignty. Just as neoliberalism could not have been adapted without government neoregulation (Pechlaner & Otero, 2008, 2009, 2010), food sovereignty will not be attained unless the state plays a proactive role in addressing the structural issues that cause food vulnerability or the damage caused by previous food regimes.

In order to operationalize food sovereignty, advocates suggest that peoples and governments concentrate on local production for national and local consumption, rather than production for export (La Vía Campesina, 2007; Rosset, 2006b). This type of response could potentially more effectively manage the social and ecological consequences caused by the neoliberal regime,

particularly if the state recognizes smallholders' capacity as producers and as stewards of the land (McMichael, 2010). Instead of the neoliberal food regime's "Food from Nowhere" (Bové & Dufour, 2001, McMichael, 2009; Campbell, 2009), localized food regimes allow for "Food from Somewhere" or even potentially "Food from João's Farm down the Road", more directly linking producers and consumers in a food system. The goal of a food sovereignty regime would be to re-embed the role of smallholders in provisioning healthy food to their larger communities and to refocus state intervention so that the government facilitates the conditions for domestic and smallholder production. In particular, a food sovereignty regime would focus on opening up credit, subsidies, or projects to improve production particularly for smallholder farmers producing for local markets.

In Brazil, the strongest proponents of a transition towards food sovereignty are a member movement of La Vía Campesina, the Movement of Landless Workers or MST (*Movimento dos Trabalhadores Rurais Sem Terra*). The MST is a social movement made up of landless rural workers displaced by a combination of the expansion of Green Revolution inputs and technologies and changing land tenure patterns (Wright and Wolford, 2003; Branford and Rocha 2002; Caldeira, 2008; Fernandes, 2000). When mechanization and chemical inputs were introduced en masse in Brazil during the 1960s and 1970s, rural Brazilians increasingly found themselves unemployed or underemployed while land ownership continued to concentrate in the hands of the few. Since the 1980s, the MST has pressured the Brazilian state to act on its own constitution to redistribute illegal landholdings or large landholdings that do not entirely meet their 'social function' by organizing mass protests. Families occupy a segment of a disputed property in occupations (*ocupações*) and encampments (*acampamentos*) for up to twelve years to pressure the government to expropriate the underutilized land (Fernandes, 2000). While the movement's actions are considered controversial by some, the MST's push for agrarian reform has helped establish 8,620 *assentamentos* or settlements (smallholder

farming communities divided up generally into 10-30 but up to 200 hectare lots depending on the region) with 1,015,918 families settled on an area of 77,001,370 hectares throughout Brazil (DATALUTA, 2010a, p. 20).

The MST continues the struggle to advance agrarian reform, but it has also become the leading advocate for food sovereignty in Latin America. Members of the MST recognize that the social, economic, and ecological consequences of the neoliberal regime inhibited the growth of the agrarian reform movement in Brazil and the sustainability of future generations on the land. The movement also believes that the introduction of GMO soy and GMO sugarcane threatens potential agrarian reform and the production on the existing settlements. The movement also argues that agribusiness now occupies the political position held by *latifundiarios* or landed elite, continuing to perpetuate social injustice and social inequalities across Brazilian society (Coordenação Nacional do MST, 2009). The MST and other social movements continuously pressure the government to reconsider its agricultural and food security policies to address the structural conditions that deepen inequalities, poverty, and the 'Americanization' of food culture (Welch, 2006). The MST wants a *mudança do modelo* or "model change" towards a food sovereignty regime and suggests that smallholder farmers, rather than commodity-producing large-scale farmers, are the key to attaining both food security and food sovereignty in Brazil (Rosset, 2006b). João Pedro Stédile, National Coordinator of the MST and a leading advocate for food sovereignty, explains the importance of smallholders in attaining food security and food sovereignty:

Agribusiness and smallholder farming are incompatible, particularly when you look at food production. They are incompatible because agribusiness defends monoculture, for us it's diversified production. They use all the more agro-toxics, while we defend agroecology. They use big machines, we want to use small machines and manpower in the countryside. They practice techniques of aggression with the environment; we defend balancing techniques with the environment. *They want profits, we want to produce food.* They want to produce commodities for export, we want to prioritize cooperatives, CONAB, and the internal market. They concentrate

on revenues; we distribute it amongst all the small farmers. *Agribusiness owners live in the city, away from the countryside. Peasants live on their land* (quoted in De O Povo 2011, emphasis added)

The MST sees smallholder farmers as protectors of Brazil's land and food sovereignty and actively pressures the government to recognize this segment of society's capacity to produce food.

Implementing Food Sovereignty: the Food Acquisition Program (PAA)

With pressure from the MST and with increasing research suggesting that the MST's proposals of food sovereignty in Brazil may strengthen food security and diminish food vulnerability (de Schutter, 2010; Rosset, Sosa, Roque & Lozano, 2011; Rosset, 2006b), in 2003 the Brazilian government proposed new policies that would strengthen rural economies by creating employment and encouraging local, decentralized food-supply systems. To establish these local food systems, the government developed the Food Acquisition Program (*Programa de Aquisição de Alimentos* or the PAA), a component of the *Programa Fome Zero* (Zero Hunger Program). In contrast to the neoliberal globalized supply chain, the PAA works to stimulate local food production by smallholder farmers and to create new linkages within and between communities. The program gives preference to agrarian reform settlers like those the MST represents. The MST national co-ordinating body, while generally providing a critical perspective on government policies, also thinks highly of the program suggesting that the program is a significant departure from the government's typical agricultural policies (Interview 46, 30 October 2010). Additionally, the Brazilian government ministries have increasingly utilized 'food sovereignty' terminology in its own discourse surrounding the Fome Zero and the PAA, suggesting that the goals of the program may correspond with La Vía Campesina's framework (Ximenes & Scorza, 2010; Scorza 2010)

The central research questions for this thesis are as follows. How does the Brazilian government operationalize a food sovereignty framework with the PAA and what are the challenges it faces in the process? To what extent does the PAA, as an expanding food security program, represent a policy shift by the Brazilian government from a neoliberal food regime to a potential food sovereignty regime? As the PAA's mandate requires that it specifically include agrarian reform settlers as participants and encourage agro-ecological practices, what are the challenges of transitioning to local food systems within these guidelines for both the government and the settlers?

This thesis will respond to these analytical questions with the aid of a case study conducted in the Pontal do Paranapanema region of Brazil. I contend that with the PAA, the Brazilian government is demonstrating several of food sovereignty's principles in practice. In particular, this thesis will explore the challenges of executing a program based on local food in an otherwise increasingly globalized food system, adjusting production for a domestic food market, and promoting sustainable production and biodiversity. This thesis will be structured as follows. The next chapter will justify the case-study site selection and outline the methodology used to answer the thesis questions. The third chapter will discuss the Food Acquisition Program (PAA)'s goals and functioning, while the fourth chapter will describe and evaluate in what ways the PAA could be considered food sovereignty in practice. The final chapter will conclude the thesis and offer recommendations for future research.

Chapter 2

Context and Methodology

In order to understand the relationship between the PAA and a policy shift towards food sovereignty, I have chosen to conduct a case study in the Pontal do Paranapanema, a region in the western corner of São Paulo state, Brazil. Home to both extensive agrarian reform initiatives and with deep roots in export-oriented monocultures, the Pontal is an ideal site to explore both the neoliberal food regime and the potentially emerging food sovereignty regime. Additionally, I had spent time in this region in 2008 and was familiar with its distinctive history. Although I had not intended to study the PAA when I arrived in the region for fieldwork on agricultural production strategies in agrarian reform settlements in August 2010, during preliminary interviews I became aware of the program and its increasing importance in settlers' lives and production strategies.

This chapter will first describe the history of the research site, the Pontal do Paranapanema. In particular, it will describe the region's significance in both agricultural commodity production and in the agrarian reform process. I will then outline the methodological framework of this case study, followed by a discussion of how I intend to operationalize food sovereignty and analyze its potential realization through the PAA in this region.

Research Site Context: The Pontal do Paranapanema

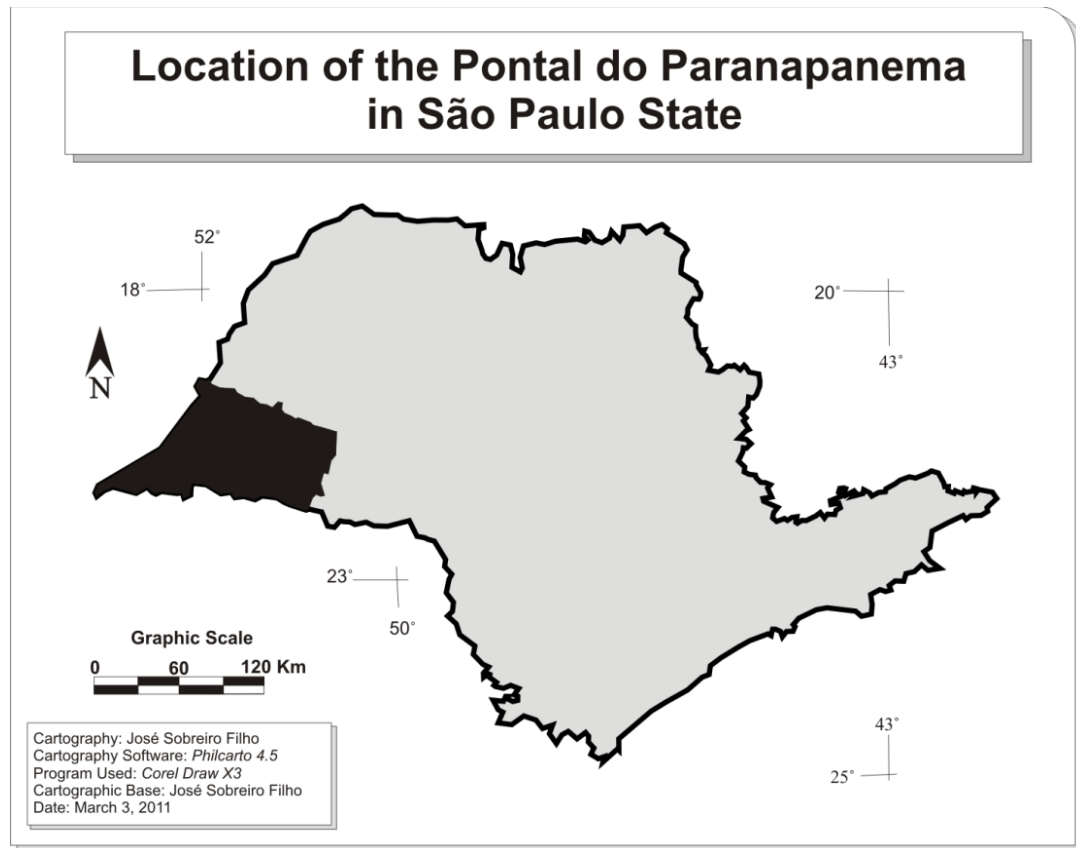


Figure 1 Location of the Pontal do Paranapanema in São Paulo State

Nestled between the rivers Paraná and Paranapanema and surrounded by the states of Mato Grosso do Sul to the west and Paraná to the south, the Pontal do Paranapanema region is at the same time one of the richest areas of São Paulo state as well as one of the poorest. The income inequality in the Pontal reflects Brazil's high GINI coefficient of 56.7 nationally in 2005 (CIA World Factbook, 2011). This region is not only an agrarian reform hotspot, home to over 100 agrarian reform settlements (DATA LUTA, 2010b), but it is also a noteworthy participant in agricultural commodity production in Brazil and thus in the neoliberal food regime. From 1988 to 2009 there were 744 occupations involving 101,275 families. Since 1984, 111 settlements were created with 6,182

families settled (DATALUTA 2010, p. 4-16). At the same time, the area of sugarcane ethanol production has more than doubled from 71,095 hectares in 2003/2004 to 152,027 hectares in 2008/2009, making the Pontal one of the largest sugarcane growing regions in Brazil (Fernandes et al., 2010, p. 800). Sugarcane is only the latest in a series of commodity trends in the region, which has included the production of soybeans, cotton, coffee, and cattle ranching.

In order to understand the region's significance in the intersection of agrarian reform, the Food Acquisition Program (PAA), and food sovereignty, one must also understand the regional history of environmental and social exploitation. Once a little-explored back land of expansive subtropical *mata atlântica* or Atlantic forest, the region is now home to extensive monocultures and cattle ranching. Up until 1850, Brazil had a land law that allowed possession of property if it could be proved that the squatters had been working the land. Post-1850, all land without this documentation was legal property of the state, known as *terras devolutas* or vacant land (Leite, 1998; Branford & Rocha, 2002; Wright & Wolford, 2003; Wittman, 2009a). In the Pontal, all the land was considered 'uninhabited' (although already inhabited by indigenous peoples) and automatically became legal property of the state. Then known as the *Alta Sorocabana* (in reference to a larger region to its east), the Pontal had been visited by boaters up the river Parana and briefly had a military base but did not have any established communities.

The settlement of the Pontal trickled along as the *Estrada de Ferro Sorocabana* (Sorocabana railway) made its way into the region. Finally arriving to the town of Presidente Prudente in 1917, the railway opened up the region to settlement as it made its way to Mato Grosso do Sul state. The majority of the Pontal was a legal nature reserve but land titles and other documents were forged with the help of eager officials and the settlement of the region expanded rapidly (Leite, 1998). Some Brazilians forged land documents and built houses that were purposely constructed to look old in order to justify their illegal land claims (Wright & Wolford, 2003, p. 301). Many would leave forged documents in

drawers with *grilos* or crickets whose defecation would falsely ‘age’ the document. This practice originated the use of *grilos* and *grilagem* as terms for landgrabbers and illegal land grabbing. The original land-grabbers began to illegally sell portions of their large properties in an effort to legitimize their actions. The *fazendeiros*¹ (land holders with immense properties) who were themselves *grilos*, controlled the emerging municipalities. Run by these “backland colonels” and their hired guns, “*jagunços*”, the Pontal was at one point the ‘Wild West’ of Brazil. One of its most famous founding *fazendeiros*, Colonel Alfredo Marcondes Cabral is even quoted as having said, “Land awash with blood is good land” (Welch, 2009, p. 132). This concentration of power served to further legitimize illegal land acquisition activities. By 1940, 250,000 people lived in the region and land claims were regularly contested and considered fraudulent (Leite 1998; Valladares-Padua, Padua & Cullen Jr.. 2002).

Production in the Pontal focused largely on export commodities and its expansion was often at the cost of ecological destruction. When the coffee market, once the staple crop of the state, collapsed with the stock market in 1929, the land-grabbing *fazendeiros* and their sharecroppers began to produce other commodity crops for export including peanuts, cotton, and cattle. Monoculture land use in the Pontal led to ecological problems. It was common for *fazendeiros* to abandon their properties after their monoculture crops would exhaust the soil and move into virgin ground further into the interior and even into the legally protected reserve land (Leite 1998; Valladares-Padua et al. 2002). Today, only 1.85%, or 36,000 hectares, of the original reserve land in the Pontal remains forested (Valladares-Padua et al. 2002, p. 71).

The extensive use of Green Revolution fertilizers, pesticides, and herbicides by *fazendeiros* (and increasingly agribusiness) from the 1960s

¹ *Fazendeiro* is the term most commonly used by people in the Pontal although it is also common to see *latifundiario* or landed elite. I chose to use *fazendeiro* to remain specific to the region.

onwards perpetuated existing land tensions in the region as farmers began to abandon deteriorated soils and replicate the cycle elsewhere. “Here in the Pontal, due to having only cattle ranching – before the settlements were created – the *fazendeiros* created many environmental problems, like soil erosion, gully (*voçorocas*) erosion, deforestation, the disappearance of many water sources – a lot of water disappeared from the Pontal,” explained the MST agricultural production strategies co-ordinator in the Pontal (Interview 46, 30 October 2010).

By the 1980s, the conflicts over illegal land and social inequality increased significantly. Agrarian reform movements emerged around the Pontal, with the most prominent being the MST, which arrived officially in 1992. The region became an agrarian reform hotspot characterized by violence and exploitation of both people and land (Wright & Wolford, 2003). Despite its distinctive history, the region also reflects the larger overall history of Brazil. The tumultuous and sometimes violent history of agrarian reform in the region (Wright & Wolford, 2003; Fernandes et al. 2010) also reflects the stigma against settlers and agrarian reform that exists in the rest of the country. Social and economic inequality that exists alongside commodity production in other areas of Brazil (e.g. soy in the Centre-West region or sugarcane in the Northeast region) is also seen in the Pontal, particularly as the region’s *fazendeiros* aggressively embrace sugarcane production (Fernandes et al., 2010). This aggressive growth exemplifies the strong presence of the neoliberal regime in the region (as demonstrated by the following table).

Table 1 Sugarcane versus land reform settlement expansion in the Pontal do Paranapanema (Area in Hectares), 2003-2008

	2003-2004	2005-2006	2007-2008	Percentage increase
Sugarcane	71,095	92,391	152,027	114%
Settlements	127,438	137,991	140,272	10%

(Fernandes et al. 2010, p. 802)

As in other rural parts of Brazil, settlers face difficulties working the exhausted soils they inherited from the farmers with large landholdings, the *fazendeiros*. “When we got here, it was just pasture – there wasn’t a single living thing. There weren’t any birds, insects, flora, fauna, *nada*, just pasture,” explained a settler from Margarida Alves settlement (Interview 28, October 18 2010). As in other agrarian reform settlements across Brazil, settlers have difficulty finding markets to commercialize their products, particularly when trying to produce commodities in competition with their remaining *fazendeiro* neighbours (Chmielewska & Souza, 2010; Branford & Rocha, 2002; Wright & Wolford, 2003).

Today the smallholder farmers on the land settlements in the Pontal are active participants in the Food Acquisition Program (PAA). Through the PAA, the government purchases food products throughout the year from smallholder farmers to supply a variety of public initiatives such as schools, hospitals, soup kitchens, and popular restaurants. The PAA encourages smallholder farmers to both increase and diversify production by guaranteeing fair prices and a market for the farmers to commercialize their goods. There are currently 1,054 farmers (of the 5,853 total settler families in the region) participating in the PAA in the Pontal according to the Department of Social Development and the Combat of Hunger or MDS (2010). In 2010, the participating farmers in the Pontal received R\$6.4 million (or \$3.8 million CDN) – or roughly half of the PAA money in São Paulo state – in PAA purchases and investment (MDS, 2010). The participation of the Pontal’s settlers in the PAA, coupled with the region’s unique history as an active participant in the neoliberal food regime make the Pontal an ideal site to explore the program in a food sovereignty framework.

Methodology

In order to operationalize food sovereignty, I must first outline what I will consider to be a food sovereignty framework. Food sovereignty, as a relatively

new concept, has yet to be consolidated into one authoritative definition; however, food sovereignty's conceptualization reflects the socio-economic and ecological needs of peoples and communities. Food sovereignty policy thus depends on a flexible framework that can be utilized and applied based on a community or region's socio-ecological requirements. For the purpose of this thesis, I will look specifically at how the public program in question, the PAA, engages the food sovereignty framework promoted by La Vía Campesina and the MST. I will concentrate on how the program may be reorganizing the food trade to prioritize local production of traditional and nutritious foods, protecting natural resources, encouraging social, economic, and political participation in communities, and addressing the right to food (Wittman et al., 2010; Desmarais, 2007).

To address these basic pillars of food sovereignty, I will analyze the construction of the program with the aid of the available literature on the policy and complement it with data obtained during field research in the Pontal do Paranapanema region of São Paulo state between August 2010 and November 2010. In addition to an examination of government surveys and the extensive literatures on agrarian reform and food security in Brazil, the study is based on several months of participant observation and fifty formal and informal interviews with stakeholders (such as extension technicians and local businesses) and settlers from four different settlements situated in the Pontal do Paranapanema region. Six students of the MST-UNICAMP Agro-ecology course taking place in Presidente Prudente were also interviewed. All of the students interviewed lived on settlements within the Pontal. Forty of the total interviews came from the four settlements (see Appendix 1). Of these interviews, only eight settlers were not participating in the PAA.

Table 2 Participating Settlements

Settlement	Municipality	Number of Lots	Year Established	Created By
Antonio Conselheiro	Mirante do Paranapanema	65	2000	ITESP
Bom Pastor	Sandovalina	130	1997	ITESP
Margarida Alves	Mirante do Paranapanema	90	2006	INCRA
Gleba XV de Novembro	Rosana	571	1984	ITESP

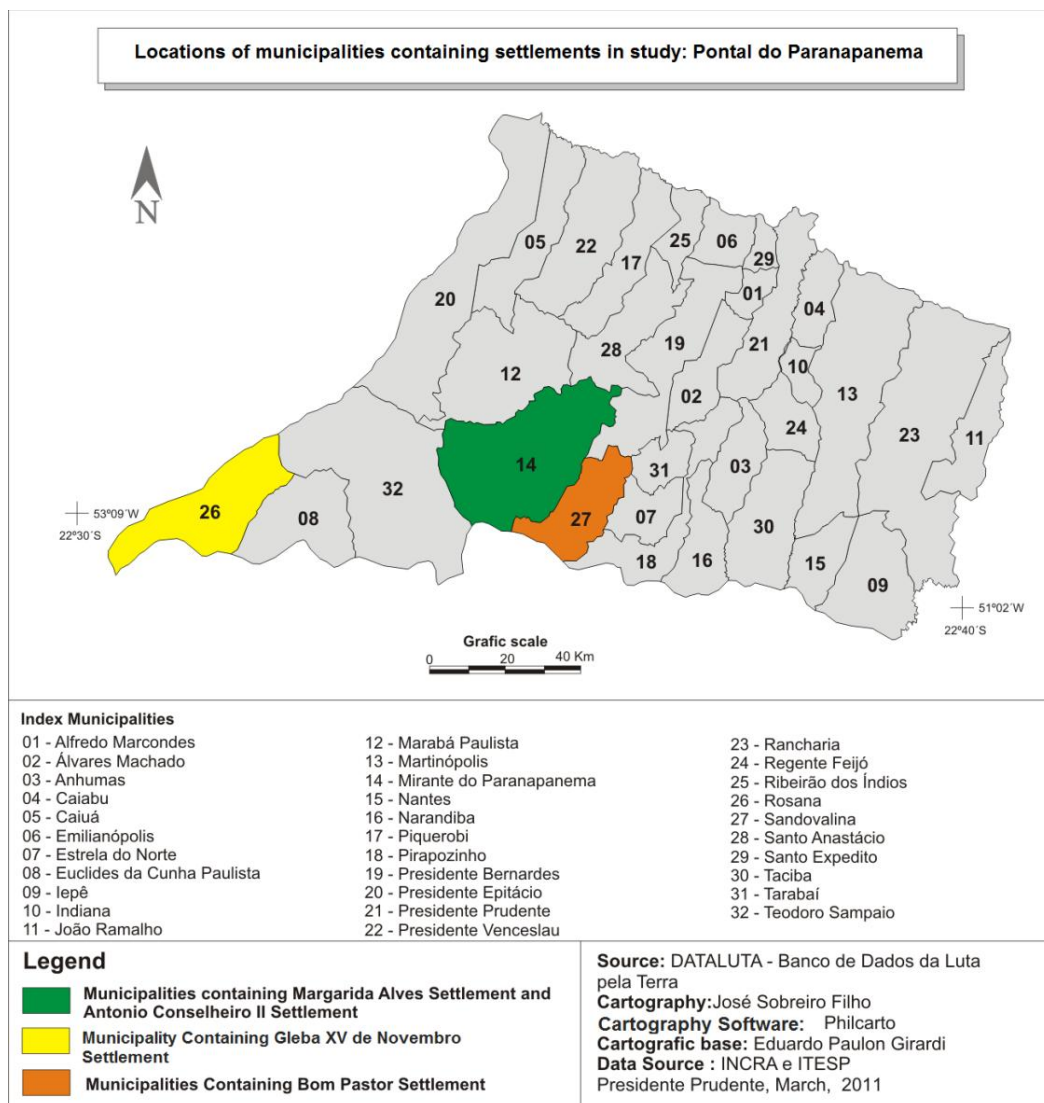
Table 3 Distribution of Interview Participants

Settlement	Number of Interviews	PAA Participant Families Interviewed	Main Production Sectors
Antonio Conselheiro	10	7	Coffee, Cassava, Greens, Tomatoes, Fruit, Milk
Bom Pastor	9	7	Eucalyptus, Cassava, Greens, <i>Colorifico</i> , Milk, Aquaculture, Coffee
Margarida Alves	8	7	Greens, Tomatoes, Fruits, Milk, Cassava
Gleba XV de Novembro	13	11	Coffee, Cotton, Greens, Tomatoes, Fruits, Milk, Cassava
Total	40	32	

All interviews were conducted between August 2010 and November 2010 in and around the Pontal do Paranapanema region. The four settlements studied

were Antonio Conselheiro, Bom Pastor, Margarida Alves, and Gleba XV de Novembro. All settlements contained lots between 15 and 25 hectares. Antonio Conselheiro and Margarida Alves both lay within the municipality of Mirante do Paranapanema while Bom Pastor is situated in the municipality of Sandovalina. Gleba XV de Novembro is situated in the municipality of Rosana (See Figure 2). While all settlements had some degree of participation in the PAA through associations or co-operatives, it is important to note that not all settlers were participating in PAA.

Figure 2 Locations of Municipalities Containing Studied Settlements in the Pontal do Paranapanema



Interview subjects in the settlements were selected by snowball sampling. Given the remoteness of settlement communities and the communities' potential wariness of outsiders, it was essential to utilize contacts with access to the settlements such as settlers or fellow student researchers from the Presidente Prudente campus of the State University of Sao Paulo (UNESP) in order to gain access. Additionally, settlements are difficult to navigate without a guide from within the community itself largely because there are little or no road signs or visible markers of addresses. While introductions were made by acquaintances in each community, interviews were conducted privately with each participant. Additionally, the contacts helped locate interviewees who participated in the PAA as well as interviewees who did not. In the Margarida Alves settlement, interviewees who did not practice agro-forestry were purposely chosen in addition to interviewees who did practice it to compare agricultural production practices in relation to food sovereignty.

The interviews were structured to learn about how each settler experienced participation in the PAA, their commercialization strategies, and their own production model (see Appendix 2, interview schedule). The interviews followed a semi-structured format in order for the settlers to reveal their own experiences, and averaged thirty minutes each. A student at UNESP and the author transcribed all interviews from audio-recordings. Translations of the interviews were done by the author. All names have been changed to protect the anonymity of the interviewees. The interviews are meant to complement existing literature and data on the topic and should be seen as the opinions and perspectives of the settlers themselves and other stakeholders.

Although I did not intend to study the PAA prior to arriving in the Pontal do Paranapanema, I had intended to explore food sovereignty in the region. Interviews revealed that the term 'food sovereignty' on its own did not resonate with many of the settlers. Those interviewed who did know about food sovereignty, in particular those in MST leadership positions, known as militants, saw food sovereignty as a means to end social, economic and ecological

dependency and promote autonomy both at the national level and at the local level. “For me, food sovereignty is whoever has a piece of land must get the most of their own subsistence out of that land,” explained an MST militant from Gleba XV de Novembro settlement. “We know that this is going to be a difficult process but if people don’t have access to food sovereignty than we cannot attain autonomy. But for me, whoever has production autonomy has food sovereignty” (Interview 46, 30 October 2010). Another MST militant based in the city of Presidente Prudente explained that this idea of food sovereignty as autonomy of production and maintaining a level of subsistence relates to the failures of food security. “Food sovereignty is more than food security,” he explained. “Food security is just about increasing production like, ‘People are hungry, we need to increase production!’ but then we increase production and people are still going hungry. Food sovereignty is changing the system so that *no one* goes hungry” (Interview 51, 1 November 2010).

Upon further inquiry, it was revealed that although many of the other settlers that I interviewed were not familiar with the term itself, the main pillars of La Vía Campesina’s food sovereignty when described separately were important to the settlers. When I inquired about how the settlers valued the environment or how the settlers encountered state support to facilitate smallholder production, the settlers interviewed responded in depth, suggesting that the issues of food sovereignty were significantly important in their lives. Thus, I discovered that the best way to explore food sovereignty in the Pontal do Paranapanema was to examine each of its pillars in more detail.

Finally, this thesis will refer to the settler farmers as settlers or smallholder producers. I chose to use smallholder instead of *camponês* or peasant largely because there was a degree of self-definition linked to the term among the settlers. Smallholder is also the term I will use for *agricultor familiar* or family farmer. In Brazil ‘family farmer’ is broadly defined. According to Law 11,326 of July 24th 2006 of the National Family Farming Act, to be defined as a *agricultor familiar*: the rural establishment (or area of activity) must not exceed four fiscal

modules (this is measured in hectares and varies by region and municipality); the labour used in the related activities is mainly family-based; the family's income is based mainly from activities related to farming and the smallholding; and the establishment is directly managed by the family (Chmielewska & Souza, 2010, p. 21; INCRA, 1980). These fiscal modules as defined by municipalities have remained unchanged since 1980, before the advance of the agrarian reform social movement in the country. While in some areas of Brazil (particularly in the Center-West or Amazon regions) farmers may have 200 hectares and still be considered 'smallholders', in the Pontal smallholders are those with less than 120 hectares (roughly 30 hectares per fiscal module for the region, although each municipality varies nominally). Despite this, most agrarian reform settlers in the Pontal do Paranapanema region farm between 15-25 hectares per family, meaning that the settlers are positioned at the smallest end of the family farming spectrum. The PAA addresses this inequality in the legal definition of smallholder farming by specifically targeting agrarian reform settlers for the program who often have less than two fiscal modules in any given region.

Chapter 3

The Food Acquisition Program (PAA)

The purpose of this chapter is to explore how the Food Acquisition component (the PAA or *Programa de Aquisição de Alimentos*) of the Zero Hunger Program (*Programa Fome Zero*) functions and in particular how it has been experienced in the Pontal do Paranapanema region of São Paulo state. Through the PAA, the government supplies publicly-funded programs for those who are food insecure. The food used in the program comes from a regional community's smallholder farmers with preference given to agrarian reform settlers. These programs include public soup kitchens, nursing homes, schools, and daycares. By choosing to source the food for these programs locally, the Brazilian government at federal, state, and municipal levels is prioritizing the contributions of smallholder farmers to food security. This chapter will outline the structure and goals of PAA and how it is implemented from contract to delivery in the settlements of the Pontal do Paranapanema. It will also examine the incentives and challenges faced by both the farmers and the responsible government agencies within the program.

The Food Acquisition Program (PAA)

The PAA was created in 2003 as part of newly-elected president Lula's Fome Zero program. PAA was created through Law no. 10696 on 2 July 2003. The program is an extension of the goals of the federal government rural credit bank, PRONAF or the National Program to Strengthen Family Agriculture (*O Programa Nacional de Fortalecimento da Agricultura Familiar*) which began in 1996 (CONAB, 2006, p. 1-3). The PAA specifically works with marginalized segments of the Brazilian population such as settlement farmers, *quilombolas*

(escaped-slave communities formed during the nineteenth century, and recognized in the 1988 constitution as legitimate), peoples affected (displaced) by dams (*atingidos por barragens*), indigenous communities, smallholder family farmers, and encamped agrarian reform farmers (*acampados*).

The food produced within the PAA supplies local institutions aiding the food vulnerable including public schools, hospitals, church-aid groups, nursing homes, agrarian reform encampments (*acampamentos*) as well as others based on regional needs. Product quality and safety is guaranteed by health inspection done by federal, state, or municipal authorities with a particular focus on meat and dairy purchases. Most products the in PAA are fruits and vegetables.

The specific goals of PAA are to:

- guarantee an income and sustain fair prices for family farmers;
- encourage settlers associations and co-operatives;
- promote food security and nutrition both in rural areas and in urban areas;
- compile national stocks of food;
- improve the quality of smallholder farmer products;
- restructure local and regional food supply chains;
- encourage local food culture;
- encourage agro-ecological methods and bio-diversity in production (CONAB, 2006, p. 6).

The overarching goal of the PAA, however, is to improve food security in the country's food vulnerable communities. The Ministry of Social Development and Combating Hunger (MDS) estimates that the PAA supplies 25,000 public programs with food. Between 2003 and 2008, smallholder farmers participating in the PAA produced 2 million tons of food for the program. In 2006, there were 111,000 farmers participating in the PAA (Chmielewska and Souza, 2010, p. 4). CONAB donated these products to 16.8 million people in food vulnerable situations. In 2006, 40 percent of Brazilian households or 72 million people were experiencing food vulnerability (11 million of whom were in a state of extreme

food vulnerability), a figure that decreased to 65.6 million in 2010. By Chmielewska and Souza's calculations, the PAA supported 25 percent of the food vulnerable population in 2006 (2010, p. 4). These figures suggest that the PAA is addressing a significant portion of Brazil's food vulnerability by supplying both public and private programs with food.

Due to the program's apparent success in addressing food vulnerability, the government has increased funding gradually for the PAA since its inception. Between 2003 and 2008, the government invested 3.5 billion *reais* (\$2.1 billion CDN) in PAA to buy a total of 3.1 million tons of food from approximately 160,000 farmers. Chmielewska and Souza note that only 2.5 percent of the 4.3 million family farming establishments in Brazil currently participate in the PAA (2010, p. 4). The MDS budgetary report in 2010 indicated that the MDS spent R\$ 550 million (\$330 million CDN) that year on the PAA (MDS em Numeros, 2011). In 2011, the MDS planned to spend R\$ 640 million (\$383 million CDN) to buy 437,000 tons of food from 150,000 farmers to benefit 18 million people in food vulnerable situations (Ximenes, 2011, pp. 8).

In comparison to Brazil's other food security programs, the PAA receives roughly ten percent of what Fome Zero's other, better-known program, the Bolsa Familia (Family Purse), receives. The Bolsa Familia program gives conditional cash transfers to extremely low-income families and awarded R\$5.4 billion (\$3.2 billion CDN) to 4.6 million eligible families in need in 2010 (Territorios da Cidadania 2010, p. 3; MDS em Numeros 2011). Provided that children attend school regularly and obtain vaccinations, in this program eligible families receive small stipends for household food purchases. Unfortunately, one in five Bolsa Familia recipients still live in states of extreme food vulnerability and experience chronic hunger (Ibase, 2008 in Rocha, 2009, p. 62). By supplying schools, hospitals and soup kitchens, as well as other public programs, the PAA can reach segments of the food vulnerable population that do not necessarily qualify for the Bolsa Familia.

Table 4 The PAA Sub-programs

The PAA Sub-Program	Function	Yearly Cap/Daily Limit Per Farmer	Purchaser
PAA Milk (PAA Leite)	This sub-program of PAA was created to increase consumption of milk by families that are in a situation of food vulnerability while at the same time creating an incentive to augment production by family farmers. This program is only active in Minas Gerais and all the Northeast states.	100 L a day at local price rate (varies per sub-region)	Superintendent for the Development in the Northeast (<i>Superintendencia do Desenvolvimento do Nordeste</i> [(SUDENE)])
PAA Local Purchases and Donation (PAA Compra Direta Local com Doação Simultânea)	This sub-program acquires products from family farmers individually to supply food and nutrition to local public facilities and social-assistance programs. Food is sent to local distribution centres before being distributed to popular restaurants, community kitchens, and food banks.. This program works in conjunction with state and municipal governments.	R\$4,500 (\$2,600 CDN)	States and Municipalities
PAA Purchases and Donation (PAA Compra com Doação Simultânea)	This sub-program specifically acquires food through farmers' associations, co-operatives, or unions. Part of the acquired food goes to CONAB supply centres while the rest goes to various social assistance programs.	R\$4,500 (\$2,600 CDN)	CONAB (funding from Ministry of Social Development and Combating Hunger)
PAA Purchases for Stockpile (PAA Formação de Estoque)	The purpose of this program is to strengthen farmers' ability to produce and market their goods. It works specifically with farmers participating in PRONAF credit. This program acquires basic stock foods like rice, powdered milk, sugar, and cornmeal.	R\$ 8,000 (\$4,700 CDN)	CONAB
PAA Direct Purchase (PAA Compra Direta)	This sub-program focuses on the acquisition of basic food stocks for distribution to marginalized population groups or government stockpiles.	R\$ 8,000 (\$4,700 CDN)	CONAB
PNAESchool Lunch Program (Programa Nacional de Alimentação Escolar)	The program created in 2009 is a spin-off of the school lunch component of PAA. The program purchases 30% of school lunches from smallholder farmers.	R\$ 9,000 (\$5,300 CDN)	Ministry of Education

(MDS, 2010; Scorza, 2009)

The PAA consists of six sub-programs: PAA Milk, PAA Local Purchases and Donation, PAA Purchases and Donation, PAA Purchases for Stockpile, and PAA Direct Purchase and *merenda escolar* or the school lunch expansion (PNAE).

Table 5 The PAA in Brazil

Programa de Aquisição de Alimentos (PAA) Brazil 2010		
	Participating Farmers	Value of Purchases
PAA – Municipal	8,968	R\$9 million (\$5,3 million CDN)
PAA – CONAB	65,271	R\$245 million (\$145 million CDN)
PAA – State	14,466	R\$15.5 million (\$9.2 million CDN)
PAA – Milk	16,581 (477,389 litres/day)	R\$159 million (\$94.3 million CDN)

(MDS, 2010)

Table 6 The PAA in São Paulo state

Programa de Aquisição de Alimentos (PAA) São Paulo 2010		
	Participating Farmers	Value of Purchases
PAA – Municipal	283	R\$480,804.71 (\$285,000CDN)
PAA – CONAB	2,790	R\$11.4 million (\$6.7 million CDN)

(MDS, 2010)

PAA in the Pontal do Paranapanema

As home to over 100 agrarian reform settlements, the Pontal has become one of the largest operating areas of the PAA in São Paulo state. After first

implementation in the region in 2008, by 2010 there were 1,054 farmers (of the 12,349 smallholder farmers in the Pontal of which 5,853 are settler families) participating in the PAA in the Pontal (MDS, 2010). The participating farmers in the Pontal have received 6.4 million *reais* (or \$3.8 million CDN) in PAA purchases and investment in 2010. At the time of research the only sub-program of the PAA currently operating in the region is PAA – Purchase with Simultaneous Donation (*Compra com Doação Simultânea*). The farmers sell the products to CONAB (the National Supply Company) which in turn donates it to public or private institutions for distribution to food insecure populations. In this sub-program, farmers can produce food for both the CONAB stockpiles as well as for use locally at schools, hospitals, and churches. Within this component of the PAA, farmers can produce a large variety of food from manioc flour to lettuce to beets. The money for this specific sub-program comes from the MDS as well the Ministry of Agrarian Development (MDA) but is managed by CONAB.

Opening of new contracts in the program are made in public announcements increasingly by way of the Internet. From these announcements, farmers know exactly where the food is going and what products are needed. In the Pontal farmers can only participate in the PAA through organized associations, unions, or co-operatives. Associations are already very common in the Pontal, used by farmers to market milk or to organize pressure on the government to provide basic services like electricity or school transport during both the encampment and settlement phases of agrarian reform. Associations typically have between 20-40 members (although sometimes more).

To serve as a conduit for participation in the PAA, the associations must be formally recognized with legal documents. Farmers and associations cannot enter the PAA without a DAP (*Declaração de Aptidão ao PRONAF* or Declaration of Fitness) from the national family farmer credit program, PRONAF (*O Programa Nacional de Fortalecimento da Agricultura Familiar* or the National Program to Strengthen Family Agriculture). This government credit program allows most

settlers access to much-needed (although limited) credit. The DAP requires the farmers' CPF (a Brazilian Social Security Number), information about their lot (including area of lot, number of residents and labour force [often one and the same], income, and address), and the goal of the farmers' association. Associations applying for money or credit for a project must also have a DAP. The association must acquire additional legal certification as well. "You need CNPJ [National Register of Legal Business], tax papers, and invoices..." said one MST militant, suggesting that acquiring such papers was not always an easy task (Interview 46, 30 October 2010). The CNPJ is the mandatory registration of any business. This document 'formalizes' associations in the eyes of the state.

The associations must be able to meet the specifications of the call for produce or negotiate a replacement product with CONAB. Once these qualifications have been met, farmers associations must then sign a contract with CONAB (2011). Within the contracts, CONAB specifies the products needed and the prices it will pay for them. Prices for products are determined by CONAB after a survey of local market prices. Generally CONAB's prices are better than those offered by other wholesalers. At the time of fieldwork, this sub-program of the PAA paid up to R\$4500 (\$2600 CDN) per family per year, a limit that has grown gradually from R\$1500 (\$800 CDN) since the program began in 2003. Once this limit is reached, farmers either use the remainder of their crops for their own consumption or for sale through conventional markets. To understand the PAA's impact on a settler's monthly income, a study by Heredia, Medeiros, Palmeira, Cintrão and Leite from 2006 reported that settlers' monthly incomes ranged between R\$116.74 a month in the poorer Northeast and R\$438.72 a month in the more prosperous South and Southeast (or between approximately \$70 and \$260 Canadian) (p. 297). The maximum income from the PAA is still under the monthly minimum wage of R\$510 at R\$375 a month (approximately \$220CDN) but fits within these regional norms for smallholder settlers. Settlers in the Heredia et al. study reported a better quality of living and better food security post-settlement. Settlers interviewed for this thesis had similar

sentiments about their quality of life. Additionally, participating farmers are encouraged to practice auto-consumption with their remaining PAA crops (CONAB, 2006, p. 15), improving their standard of living beyond monthly incomes (van der Ploeg, 2010).

Incentives

Although originally the PAA only paid R\$1,500 (\$800 CDN) over a year, the program has raised the price ceiling regularly since its inception in 2003 to R\$4,500 (\$2,600 CDN) by 2010. These increases are motivating more settlers to enter the program. Settlers are not only attracted to the opportunity to augment their income but also by the minimal risk structure of the PAA. “If you produce a thousand kilos of *mandioca*, you know, you know you will get R\$500 (\$300 CDN). You produce already knowing the amount you will earn and receive,” explains one MST militant from the Gleba XV de Novembro settlement (Interview 46, 30 October 2010). The PAA is a guarantee of sale for significant quantities of goods over the course of a year for the farmers, allowing settlers to plan their production accordingly. This lowers their chances of losing money and falling deep into debt – a serious concern for farmers globally (Otero, 1999; Otero & Pechlaner 2008; Bello, 2009, Holt-Giménez, 2006, Shiva 1991). As one settler remarks:

[The PAA] is money that we are certain will not default on us [..] The majority of producers are selling *acerola* for sixty *centavos* a kilo. With the PAA, they're paying 1.37\$R. That's double plus seventeen *centavos* [..] It's money that we are certain won't be reneged. In São Paulo city, we heard that there are some families who can get R\$23.00 per 3 ½ kilo box of *acerola*. There are times when you can just send *acerola* [and get a good price] but there are times when you have to send other merchandise just to pay for the truck freight, whether this *acerola* will pay or not. The CEAGESP

(São Paulo General Warehousing and Centres Company)² in São Paulo [state] isn't a bad market, but day to day it is like playing the lottery.

(Interview 24, 14 September 2010).

Risk reduction is a major attraction of the program. Settlers are able to plan on a fair price protected from extreme market fluctuation. In addition, the encouragement of food production has other benefits for the settlements and their surrounding communities, as it is common to sell the remaining crops not sold via the PAA quota at local farmers markets.

One of the main goals of the PAA is to improve the quality and efficiency of production on the settlements. An additional goal of the program, however, is to demonstrate to the public the settlement farmers' capacity to produce agricultural goods and contribute to society. The PAA is thus complementary to agrarian reform in that it can provide a level of guaranteed income to settlement farmers while at the same time developing settlers' viability in other markets. According to the Southeast region's PAA 2006 report, settlers felt that the program raised interest in their products by other possible purchasers and that the program helped them and their associations gain more respect. Settlers also felt that the donation aspect of the program demonstrated that agrarian reform could have positive social effects in communities (CONAB, 2006, p. 14-19). Moreover, the program helps make the settlers aware of the potential prices for their goods at market. Having mainly worked with re-sellers previously, a study in the northeast of Brazil found that the farmers may not have been aware that they could potentially get better prices for their products (Chmielewska and Souza, 2010).

² The CEAGESP or São Paulo General Warehousing and Centres Company is a bulk market in São Paulo state. It is a place where distributors go to purchase goods for supermarkets, farmers' markets, and restaurants. Although established by the government, CEAGESP does not set price guidelines.

Writing the Contracts: Planning, Promises, and Diversification

One of the biggest challenges to implementing the PAA is the planning process. CONAB and the participating association write contracts with farmers specific to the destination of the food purchases. To start, CONAB puts out a public call to meet a specific project such as a church soup kitchen. Associations are typically waitlisted until an opening appears for which they qualify. In areas like the Mirante do Paranapanema municipality where there are 33 settlements (DATA LUTA, 2010, p. 16), there is competition within the municipality for nearby contracts, despite the fact that, technically, there is not supposed to be competitive bidding. Associations simply have to wait for a new contract to open or public call for applications. Associations are often forced to look for contracts or parts of contracts outside their municipality because any contracts nearby are already filled. A settlers' association offers to produce certain quotas of food based upon what the farmers can realistically put forth and depending on the needs of the project. Preparation for a contract, such as the planting of specific crops necessary for a specific contract, can take up to a year. Settlers use credit made available for the approved project from PRONAF to finance crop production for the PAA or to purchase the necessary materials for packaging or transportation. Once the program begins, deliveries are made weekly or biweekly and payments are usually made monthly.

When the PAA began in 2003, CONAB would accept large amounts of staple crops like cassava and corn because that was what the farmers were already growing. Farmers plan their prospective contributions based on past harvests and try not to promise more than they could supply. As the contracts now stipulate diversified food products like fruits and greens, many settlers have to shift production from monocultures to polycultures to meet the demand. Many settlers interviewed had not produced many of the products ordered by the PAA beyond for subsistence and thus had to change their crops partially or entirely. Often this means that many do not reach the R\$4,500 (\$2,600 CDN) ceiling the

first year of entrance, although the guaranteed prices do provide an incentive to increase production the following years. “[The price] is a good incentive for a smallholder farmer [to participate in the program] - our problem isn’t production, it’s mostly having a place to enter the market,” explained a settler from Bom Pastor (Interview 14, 12 September 2010).

Although there are sometimes a limited number of contracts, many associations may work on the same contract. One association may offer five products spread out over a year, while another may offer three products spread out over a year. Quotas are generally measured in metric tons over a period of a year. For example, a contract with a farming association with 93 members for metropolitan São Paulo schools included the following: 12 tons of lettuce, 12 tons of chicory, 8 tons of *couve* or bitter greens, 8 tons of peppers, 10 tons of cucumbers, 12 tons of Japanese cucumbers, 80 tons of cassava, and 80 tons of pumpkin over the course of a year and it is only one of many associations working on the same contract (Territorios da Cidadania, 2011). Settlers interviewed indicated that it is common for quotas in contracts to be vague. For example, contracts may only specify ‘fruits’ or ‘greens’ allowing the farmers some flexibility and the menus at their destinations some diversity (Interviews 37 and 38, 16 October 2010; Interviews 40 and 43, 30 October 2010).

The program is unique in that it encourages the production of local products; however, local does not just mean physical proximity. One of the goals of the program is to preserve Brazilian food culture through the production of typical Brazilian foods (CONAB, 2010). The PAA takes this objective seriously, to the extent that the program buys only certain goods specific to the region. In the North and Northeast of Brazil, the PAA will buy *açaí*, a local specialty, but in the Southeast, the program will buy peanuts (popular due to the large Japanese immigrant presence in the region). As Chmielweska and Souza (2010) note, this aspect of the PAA is encouraging the production of rare varieties of cassava (p. 10). Thus, each PAA contract is unique to its locality.

While farmers can provide something else if they fall short on one crop, it often does not benefit them, particularly if the replacement crop is worth more than the original crop. Contracted payments do not increase accordingly. However, if the replacement crop has a lower value than the contracted crop, the farmers' payments are adjusted to reflect this. As farmers are paid monthly and not in an annual sum as with normal harvests, they will lose money if they fall short or substitute one crop with a less expensive crop. Associations are responsible for both the quality and quantity of food delivered. "There are people that send 200 or 300 heads of lettuce but when you get there only 60 of them can be accepted because the rest are all spoiled," explains a settler from Margarida Alves. "I think this is a shame on that person because it soils the name of the association." (Interview 31, 15 October 2010). If one participating farmer in an association is not able to fulfil their commitment or contributes with irregularity (either in deliveries or in the quality of goods delivered), he or she is given a warning by CONAB, who tracks the deliveries through the mandatory invoices that must be signed upon delivery before payment. If irregularities continue, the whole association could be barred from participation. As Chmielewska and Souza note in their study, associations hold frequent meetings in order to prevent such consequences (2010, p. 13). In the Pontal, settlers interviewed indicated that they met regularly, out of necessity, to resolve production and delivery issues as well as to organize the invoices for payment. Settlers in the Pontal also indicated that if the participating PAA farmers were short on a promised crop, it was common for the farmers to purchase the necessary quantity from neighbours, who themselves may be in the process of entering, in order to not lose their PAA privileges.

In order to address excessive amounts of certain crops and spoilage, a settler from Margarida Alves explained that CONAB now requires diversification as a condition in new contracts (Interview 31, 15 October 2010). One of the initial problems in the program was that farmers were overestimating their ability to contribute one or two crops. As CONAB tends to buy by the ton over the year,

this is not out of the ordinary, particularly if there is a crop failure or unfavourable weather. In order to minimize shortfalls, CONAB prefers to purchase smaller quantities of many crops provided that they receive all the necessary products rather than mass quantities of just a few, with a greater risk of spoilage. CONAB also spreads contracts amongst more associations to achieve their quotas.

Figure 3 A PAA delivery being prepared at Gleba XV settlement 30 October 2010



Merenda Escolar: The School Lunch Program Expansion

The National School Lunch Program (PNAE or *Programa Nacional de Alimentação Escolar*), providing public school children with a free lunch, has existed since the 1950s and annually feeds 36 million children (Rocha, 2009, p. 62). In 2009, the Brazilian government passed a law stipulating that children in public schools have a right to a free lunch. The same law mandates that at least 30% of food served in schools is purchased from smallholder farmers, preferably settlers. According to Article 12 of Lei 11.947/2009, “the school lunch menus must be prepared by a nutritionist responsible for lunches that provide the basic foodstuffs in consideration of nutritional needs, dietary habits, culture, and local food traditions, basing the lunches on sustainability and regional agricultural

diversity, and ultimately providing a healthy diet”. Article 14 of the same law stipulates that at least 30 percent of all food items used for school lunches come from family agriculture, prioritizing agrarian reform settlements, traditional indigenous communities and *quilombos* (Planalto, 2009). The provisions in these articles are contingent on there being a safe quality and adequate supply available. The new law also stipulates that at least 30% of the money allocated for the children’s school lunches cannot be spent on food from large-scale operations.

This aspect of the PNAE is a spin-off of the PAA’s own *merenda escolar* program. Depending on the participating municipality, the PAA supplied school lunches before this law. It is now technically a different program; however, the PNAE’s acquisition program works similarly to the PAA and the prices that the farmers receive follow the PAA’s guidelines for the region if the program is present (Schottz, 2009; Scorza, 2009). The funds for *merenda escolar* portion of the PAA will no longer come from CONAB but rather the Ministry of Education, although the Ministry of Social Development considers it a “PAA expansion” (MDS, 2009). Farmers still contribute to schools through the PAA while the country transitions from one program to the other. The farmers interviewed did not differentiate between the two programs despite both existing in the region. With the *merenda escolar* law, new contracts are opening up for settlers within the PAA and outside of the PAA. Although not all school lunches are still included in the PAA, many still are while the government makes the transition. Even if they are not run directly through CONAB as mandated by the PAA, the contracts follow similar outlines and prices (if the PAA is in the region, municipalities must pay the PAA’s rates).

One of the main differences between the PNAE and the PAA, however, is that the PNAE pays up to R\$9,000 (\$5,200 CDN) a year compared to the R\$4,500 (\$2,600 CDN) in the PAA (Fome Zero, 2011). Farmers can participate in both programs at the same time, thus earning up to R\$13,500 (\$7,800 CDN) a year. Although not available throughout all of Brazil yet, this program may force

the Brazilian government to expand the PAA itself due to competition from PNAE. Structurally, a major difference between the PNAE and the PAA is that the money for the PNAE smallholder farmer purchases comes from the Ministry of Education but all the paperwork and organization for entrance is the same (settlers need a DAP like with the PAA). As more municipalities and states honour the new law, I suspect that school lunches will work with CONAB and the PAA out of convenience and efficiency.

The PNAE, however, is still a very new program. The Land Institute of São Paulo (ITESP) reports that in 2010, just R\$26,127.86 (\$15,000 CDN) was spent on PNAE buying cassava, carrots, onions, and greens from settlers throughout the entire state. Compared with the R\$6.4 million (or \$3.8 million CDN) spent in just the Pontal in 2010 on the PAA, spending on products from settlers for the PNAE is still quite low. The goal for the PNAE in 2011 is to spend R\$96,000 (\$57,000 CDN) on settler products in the entire state. ITESP explained that, as a new aspect of the program it was slow to start up because they had to recruit settlers (ITESP, 2011). Additionally, many municipalities did not know that 30% of the schools' lunches must come from smallholders like the settlers. Of the 645 municipalities in São Paulo, in 2010 just 70 had made the public call for smallholder products to meet their school lunch quotas (ITESP, 2010).

The MST would like to see more schools surpassing the legally mandated quota of 30%. "There still needs to be more training for the public managers. Many buy just to meet the law's quota and they don't think about the PNAE's purpose of using regional forms of supply, provoking a discussion about local development," explains the agro-ecology technician Natal Magnanti. "The majority of managers are not interested in this. They buy the 30% [of food from the smallholders] because the law makes them, but they don't buy 32% or 100%, and this is will be a long process" (quoted in Júnia, 2010, pp. 22).

For each student lunch, R\$0.30 (approximately 18 cents Canadian) is budgeted by the Ministry of Education. Organizing a nutritious, filling, culturally

appropriate lunch in season and within budget can be complicated. Settlers interviewed admitted that a *merenda escolar* contract is generally harder to organize because associations need 20-30 different products to satisfy the contract's demands. Associations, school district nutritionists, and the local School Meals Council (necessary in order to gain federal funding for the lunches and consisting of teachers, parents, community leaders, and usually kitchen staff members) must work together to determine what is going to be available and when. Sourcing fresh food from smallholders year round is something that the school nutritionists have not previously encountered within the neoliberal food regime. When negotiating the contract, the farmers interviewed indicated that they have trouble explaining to the nutritionist that certain crops will simply be unavailable at certain points of the year due to seasonality or to re-growth time. Farmers instead try to plan to have something of similar nutritional value available during these gaps. At scheduled deliveries, a CONAB representative is often present to guarantee the quality and quantity of the products.

This transition towards healthy, local, culturally appropriate school lunches comes at a time when food trends suggest that Brazilians are eating less traditional fare and more processed foods like sodas, cookies, and frozen meals (Jornal do Brasil, 2010). By actively promoting Brazilian food in schools, there is a hope that this will strengthen the food culture at home and reinforce traditional Brazilian "social relations of consumption" (Friedmann, 1995). "The school is one of the environments where people's eating habits are forged and this is transferred to the home. For example, powdered milk became popular through school lunches and by the same means, 'crazy things' (*coisas malucas*) like powdered soup packets, have become a pandemic," explains agronomist Natal Magnanti (quoted in Júnia, 2010, pp. 25). In the school lunches, the students are able to eat healthy and tasty food for less than R\$0.30 per student, demonstrating that healthy food can be affordable. In addition, the program exposes children to a variety of local foods that they may not encounter at home.

The inclusion of real fresh food in school lunches is bucking global trends that have accompanied the neoliberal food regime. One of the local public state schools on the Gleba XV settlement received much of its food for its school lunch program from Gleba XV itself. Previously, all of the school lunches were the responsibility of the municipality but at the time of research, CONAB was also contributing fresh food to the schools. With the new law mandating that 30% of school lunches come from smallholder farmers with preference given to agrarian reform settlers, the PAA is among the first connections between the municipalities (who have relative autonomy in their decision-making for school lunch planning otherwise) and the settlers. As an agronomist, who is also a settler, from Gleba XV explained:

The *merenda escolar* portion of the PAA is a significant example of the program's community-strengthening capacity. As the farmers themselves are responsible for the delivery of all the ordered goods, the school grows ties with their suppliers and the larger community as a whole. Today there is not as much but formerly there was a lot of it – this view, this misconception that city folk had of farmers. Many times, they would always speak poorly of [the settlers] like 'that nut from Gleba' or 'that bum from Gleba'. Today hardly anybody is thinking like that, because you see a lot more participation of the settlement within the city.

(Interview 47, 30 October 2010)

With the existing stigma against agrarian reform, Gleba XV settlers want to show the greater community (whether in rural or urban areas) that they can be a productive part of society and many believed that the best place to do this is through the PAA and soon through the PNAE. Every Tuesday, the association made deliveries to the several rural and urban schools in the municipality. In an interview, the principal of one state public school located in the settlement itself was quite satisfied with the variety of healthy food that the children were now eating. Before the PAA, children may have been given a bun (*pão francês*) and soy-based margarine or rice and beans. While the children were still occasionally fed bread and margarine for lunch, the selection of healthier options was greater. With the program, the children ate a variety of greens, vegetables,

and fruits, much of which comes directly from the settlement. The principal believed that because of the program and the improvement in the quality of food, attendance was up and the students were studying better (Interview 36, 29 October 2010). The principal, not a resident of the settlement itself but of a nearby town, was impressed by how the settlement had come to support her school and enjoyed getting to know the Gleba XV settlement community better through the program. The school lunch public procurement program has created closer and more positive relations between settlements and their surrounding communities and settlers interviewed in Gleba XV were especially proud of their contributions to this program.

Challenges to Production in the PAA

Settlers explained that there were many financial challenges to participating in the PAA in the region. Although some of the challenges were related to the added costs to entering and participating in the program, such as packaging and transportation, the settlers interviewed were most concerned about payment irregularities associated with the program. In addition, the settlers also expressed concern about the limited impact of the program on their income. This section will address these challenges and explore other related issues.

Settlers interviewed also said that they have had some difficulties working with CONAB. In particular, the settlers were sometimes unhappy with delayed payments by CONAB or the contracting government. In order to receive the payments, the association must submit invoices and proper paperwork weekly or monthly for the regular disbursement of funds. Although the settlers claimed to have submitted all the paperwork and had already begun their deliveries through the various associations, unions, and co-operatives, it was common that the government or CONAB was several months behind on its payments or did not pay them in regular intervals. Settlers interviewed were not certain whether

delays were due to improper paperwork or whether the government was simply behind on payments. After incurring debts producing for the PAA, other studies have shown that settlers may sometimes default on the loans they took out while waiting for payment (Chmielewska & Souza, 2010, p. 14). A settler interviewed from Gleba XV explained that the delays in payments meant that she could not reinvest in production. She explained that as of October, she had only received PAA payments until May (Interview 43, 30 October 2010). Other settlers from the same settlement claimed no problems with payment receipt. Regardless of the payment irregularities at the time of field research (August to November 2010), the settlers continued making their deliveries as stipulated in their contracts in anticipation of the payment but also because they were very supportive of this program's goals.

Settlers also commented that the yearly commercialization ceilings per participant were another challenge to production. Although the amount a family receives has increased to R\$4,500 a year (\$2,700 CDN), it is still under the monthly minimum wage of R\$510 (\$300 CDN) at R\$375 a month (\$220 CDN). Settlers interviewed for this thesis liked the opportunities the PAA presented, but they felt that the program should have a higher annual limit. In the interviews, many settlers participating in the PAA commented that the program was not their central source of income. "It's not a lot, but it helps," explained a settler from Gleba XV (Interview 45, 30 October 2010). The current limits of the program attract settlers looking for a supplementary income, and often force the settlers to complement their income in other markets. All but one of the settlers interviewed sold milk through associations to local dairies for an aggregated monthly income of generally less than R\$300 (\$180 CDN) per month (at 0.65 *centavos* (40 cents CDN) a litre and 15 litres per day) (Interview 3, 11 September 2010).

The majority of the settlers interviewed continued to participate in the neoliberal food regime, often growing non-PAA eligible products like coffee or manioc (eligible but often no longer in the quantities that the settlers may be growing) for their main income in the conventional market. These settlers also

commented that previously they had trouble selling these crops and did not like the uncertainty of remaining in these markets. Many of the other settlers interviewed needed to work off the settlement for their main source of income, effectively becoming semi-proletariats (see Otero, 1999). Many children of the settlers interviewed worked at the nearby ethanol refineries instead of on the farm to bring in extra income for their families. Other children of settlers were attending college in order to work as agricultural technicians. Settlers interviewed expressed that they liked the structure of the PAA program but recognized that it was currently not enough to pay all monthly expenses.

The increased ceiling in the PAA and the addition of PNAE suggests that soon settlers could earn R\$1,125 (\$690 CDN) a month (twice the monthly minimum wage). Although settlers interviewed expected the program to continue following the election of President “Lula” da Silva’s successor, President Dilma Rousseff, the potential dependency on the program by the settlers is another concern. With payment irregularities, as seen in the Gleba XV settlement, participating farmers could go into debt and be unable to invest in their fund for reproduction. The settlers could effectively become wage-labourers to the state, working to pay off debts incurred in the production process. In order to prevent such social transformations, settlers’ associations, CONAB, and the government must fine-tune the payment disbursement structure.

Chapter Conclusion

This chapter examined how the Food Acquisition Program (PAA), a program aiming to reduce food vulnerability, functions and specifically explored the settlers’ perspectives of its implementation. The monthly payment structure of the program proved to be both an incentive and a difficulty for the settlers. Settlers liked receiving planned monthly payments but were disappointed that occasionally these payments were delayed. Settlers also reported that the prices they received in the PAA were fair but the program often dramatically altered

what they were producing. This chapter also suggested that by participating in both the PAA and the PNAE, settlers can make a decent income on their own farms without seeking work outside the settlement but contends payment execution issues must be fixed in order to prevent income security problems funding reproduction or damaging the settlers' credit.

Chapter 4

But Is It Food Sovereignty?

Although designed as a program to reduce food vulnerability, there is evidence that the PAA's design also has promoted a food sovereignty framework in the Pontal do Paranapanema. As the government increasingly uses the term in their discourse related to the PAA, it is therefore important to explore to what extent the program adheres to food sovereignty's framework (Ximenes & Scorza, 2010; Ximenes, 2011). In their document, 'The Right to Produce and Access to Land', La Vía Campesina outlines several conditions for the achievement of a food sovereignty framework (1996). While many of these pillars relate to international trade policy, several of them relate specifically to production practices, the people's right to food, and the rights of producers. In this chapter, I will examine how and to what extent the PAA addresses the people's right to food, the extent to which it encourages social, economic, and political participation in communities, to what extent it prioritizes and encourages local production of traditional and nutritional foods, and how it facilitates the protection of natural resources. Although these key aspects are very similar to the specific goals of the PAA (see Chapter 3), I will utilize the perspectives shared by the participating settlers in interviews in order to deepen my analysis.

Recognize the People's Right to Food

La Vía Campesina, the global social movement that popularized the concept of food sovereignty, contends that everyone should be able to access a sufficient quantity and quality of food to survive with dignity.

Food is a basic human right. Everyone must have access to safe, nutritious and cultural appropriate food in sufficient quantity and quality to sustain a healthy life with full human dignity. Each nation

should declare that access to food is a constitutional right and guarantee the development of the primary sector to ensure the concrete realization of this fundamental right.

(La Vía Campesina in Wittman et al. 2010, p. 197).

It argues that a nation only attains food security and food sovereignty when it considers access to food as a basic right of citizenship and guarantees the realization of the right (1996). According to this framework, Brazil must therefore guarantee to its people the right to food within its constitution. In order to understand what it means for food to be a basic human right, I turn to the UN's 2002 Special Rapporteur for the Right to Food's definition:

The human right inherent in all people to have regular, permanent and unrestricted access, either directly or by means of financial purchases, to quantitatively and qualitatively adequate and sufficient food corresponding to the cultural traditions of the people to which the consumer belongs, and which ensures a physical and mental, individual and collective, fulfilling and dignified life free of fear

(cited in Franceshini, Burity, & Cruz,. 2010, p. 9-10).

In 2010, the Brazilian Chamber of Deputies amended the national constitution to guarantee the right to food (Franceshini et al, 2010). This amendment also guaranteed other social-economic rights such as education, health, work, and housing. The Brazilian government intends to guarantee the right to food through continued and strengthened support for programs like Fome Zero and the PAA. Additionally, the government is concentrating on promoting this right amongst children, particularly focusing on ensuring that children have access to nutritious school lunches by strengthening the School Lunch Program (PNAE) and the PAA (Francheshini et al, 2010).

Some barriers to realizing this right for ordinary Brazilians exist. First, Brazilians must be made aware that they have the right to food and freedom from hunger (Franceshini et al. 2010, p. 67-69). The Special Rapporteur to the UN,

Olivier de Schutter notes that in order to protect any human rights, Brazil needs an independent institute to monitor the state's progress. He observes that while Brazil has The Council for the Defence of the Rights of the Person, it is not an independent institution and it no longer has monitoring activities (2009, p. 8). Additionally, Franceshini et al. (2010) note the importance of clearly defining the obligations of public institutions and civil servants in ensuring this right and holding these institutions accountable if violations of this right occur. Franceshini et al. also outline throughout their report how mechanisms to hold the government accountable to this right can be implemented with the particular example of the PAA's sister program, the PNAE. To ensure the right to food, particularly healthy and quality food, for children participating in the program, pro-active monitoring by the parents, students, and school nutrition councils is a necessary measure (p. 106 – 111). As programs like the PNAE and the PAA are connected to all levels of government, several ministries (although primarily the Ministry of Social Development), and their respective agencies (e.g. INCRA or ITESP), mechanisms guaranteeing their mandates are necessary for successful implementation.

The legislation of the Fome Zero, the PAA's parent program, recognizes that hunger is unacceptable and that in order to stop hunger, to prevent it, and to strengthen the nation's food security through structural changes, a pro-active, multi-layered approach is needed (Fome Zero, 2006). The PAA plays an active role in providing food to those in food vulnerable situations through a variety of institutions while at the same time creating commercialization opportunities for smallholder farmers. This approach gives civil society, particularly marginalized peoples like agrarian reform participants, a larger role in their community's food security. Since its introduction, there has been a nine percent reduction in food vulnerable Brazilians from 72 million in 2006 (Chmielewska & Souza 2010, p. 4) to 65.6 million in 2010 (IBGE, 2010). These decreases are even more significant if one considers that the population of Brazil grew from 188 million in 2006 to 201 million in 2010 and the number of food vulnerable did not grow with it (CIA World

Factbook, 2010). In part through a program like the PAA segment of Fome Zero, the Brazilian government is attempting to realize the right to food that it has legally guaranteed its people. The Brazilian government does meet La Vía Campesina's basic requirements for this pillar of food sovereignty but in order to continue fulfilling this criteria, Brazil must continue to take a pro-active role in promoting programs to address its food vulnerabilities.

Encourages Social, Economic, and Political Participation in Communities

In a food sovereignty regime, smallholders must be allowed to play a pro-active role in the planning process and in the co-ordination of regionalized food systems. Additionally in this regime, smallholder producers are valued by their larger communities and governments to the same extent as large producers. La Vía Campesina contends that governments must encourage food for local consumption by supporting decentralized rural credit systems. "Production capacity rather than land should be used as security to guarantee credit," explains La Vía Campesina. "To encourage young people to remain in rural communities as productive citizens, the work of producing food and caring for the land has to be sufficiently valued both economically and socially" (cited in Wittman et al. 2010, p. 198). In order to facilitate the settlers' social, economic, and political participation in their larger communities, the settlers' contributions as productive citizens must be valued and recognized by the government. I contend that the first step in promoting the PAA as a means to support the settlers' community participation is for the government to invest in adequate rural credit programs.

The settlers interviewed felt that their limited access to state credit banks was a major barrier to improving production for the PAA. While credit programs like PRONAF exist especially for smallholders like the settlers, settlers believe it often receives less funding and priority from the government. "The big producers

have more priority, the government does not look out for those who are a little bit weaker – we work because we have to work,” explained a settler from Gleba XV. “We work half in the red – we do not have conditions like they do, we just have to keep producing” (Interview 39, October 30 2010). Many of the settlers interviewed felt that other key segments of society such as banks respected the rights of the *fazendeiros* and agribusiness over their own rights as smallholder producers. A settler from the Bom Pastor settlement explained:

No, we don't have the same rights because [the *fazendeiros*] have access to money – it's that much easier for them than for us smallholders. I mean, if we go to the bank, it is delays, delays, delays. When the big producers go in they can say “Come here boy [*rapaz*], get me a coffee!

(Interview 12, 12 September 2010).

Settlers attribute this differential treatment to the importance placed by the government on export earnings from agribusiness and *fazendeiros*, groups that also constitute influential and powerful segments of Brazilian society.

In 2008/2009, agribusiness and large landholders received roughly 65 billion *reais* (\$38 billion CDN) in funding and credit. In contrast, smallholder agriculture under 200 hectares (*agricultura familiar*) received just 13 billion *reais* (\$7.6 billion CDN) in agricultural credit and other support (Andrade, 2008, p. 23-25). Large farms (of more than a thousand hectares) occupy 43% of the total cultivated area but account for just 0.9% of total farms (47,000 farms). Given that there are 59.5 million arable hectares in Brazil (Trading Economics, 2011), large-scale producers receive R\$2540 (\$1500 CDN) per hectare while smallholders receive only R\$730 (\$446 CDN) per hectare, a significant difference that reflects a major economic disadvantage to smallholders like the settlers.

Table 7 Largeholder versus Smallholder Government Funding and Credit

	Percentage of Arable Land Occupied	Government Funding and Credit	Government Funding per Hectare
Largeholders (more than 1000 hectares)	43	R\$13 billion (\$7.6 billion CDN)	R\$2540 (\$1500 CDN)
Smallholders (less than 200 hectares)	30	R\$65 billion (\$38 billion CDN)	R\$730 (\$446 CDN)

(Russo, 2011; Andrade, 2008)

By comparison, in 2010 12.8 million family farms (with establishments under 200 hectares) had just 30% of the land but accounted for 77% of total employed persons in rural areas. Smallholder agriculture produces 70% of the food consumed in Brazil on only 30.3% of the arable land, providing \$54.4 billion USD in agricultural value (38% of total production). Moreover, smallholder agriculture under 200 hectares creates 15 jobs per 100 hectares while large-scale commodity farming only creates 1.7 jobs per 100 hectares (Russo, 2011), reflecting a very high technological intensity in their operations.

Considering this information, smallholder farmers already are contributing more on a per capita basis to their communities in terms of employment and in terms of supporting Brazil's commitment to the right to food and the reduction of food vulnerability. Altieri suggests that low smallholder productivity is only due to the lack of social support, not due to choice of technology (2010, p. 126). There is also data suggesting that smallholders can out-produce their larger counterparts by producing a larger variety and quantity of foods on an equivalent land area (the inverse-productivity argument, see Rosset, 1999). Still, smallholders receive substantially less public investment, recognition, and earnings. The PAA provides the settlement farmers with an opportunity to show their own communities what they can produce. As one settler from Margarida Alves explains:

It's like this: we have to produce for agrarian reform. We have to beat agribusiness sometimes, it's about showing it with production,

showing that smallholders can pull it off. It's important to beat agribusiness by showing the world that we are producing, just keep pounding and pounding. PAA is one hell of a tool to show that the Landless can produce food and for the kids with *merenda escolar*. It's going to be very interesting to use it to promote agrarian reform. All the things that we think to do – it's markets. Some cities already have developed markets, cool ones where the majority of the products are the products of agrarian reform. I think that the idea is this: Show the products of agrarian reform to society.

(Interview 31, 10 October 2010)

By facilitating improved credit access to smallholder settlers, the Brazilian government would be recognizing the farmers' key role in the country's food sovereignty and facilitating conditions for increased production.

Once the government facilitates improved credit access to the PAA farmers, the farmers can participate in their local communities' food systems through production and project completion. In the PAA, farmers, associations, CONAB, and the participating level of government (e.g. the municipal or state government in the school lunch program) must work together to plan a year's contract (and consequently a year's worth of food). Pretty's typologies of participation (1995) provide an interesting intersection with the PAA. While many settlers participating in the PAA may be participating solely for material incentives, the government and CONAB may promote what Pretty calls *Functional Participation*. He explains "People [in this case, the settlers] may participate by forming groups to meet predetermined objectives [...] Such involvement may be interactive and involve shared decision-making, but tends to arise only after major decisions have already been made by external agents" (1995, p. 1252). If we are to examine the PAA in a food sovereignty framework, we can also invoke what Pretty calls *Interactive Participation* where participation is seen not only as a means to meet the goals of a project but also as a right. Once the settlers obtain some control over resource management, they obtain the right to have a stake in decision-making and the maintenance of structures and practice particularly within their local food systems (1995, p. 1252).

While some rural credit programs like PRONAF are already available to the settlers, it is largely due to social movements pressuring the government towards such steps. This lack of credit available to them, in part, mobilizes the settlers to participate politically. The MST and other local agrarian reform movements in Brazil have had to pressure the Brazilian government to release more credit to smallholders and to recognize the role of smallholder farmers and agrarian reform in reducing food vulnerability and promoting food sovereignty. As a subordinate group, smallholder farmers are more able to influence the state in their favour if they are able to solidify themselves as a political force at a local level (Otero, 2004). In the case of many agrarian reform settlers, they can best pressure the government to support further agrarian reform and more public spending in the rural communities through continued involvement in the Landless Movement (Vergara-Camus, 2009).

However, the settlers' social, economic, and political participation is not limited to just the Landless Movement and, in fact, many settlers limit or even halt their involvement with the MST post-settlement. Outside the movement, settlers can still manage to pressure the government to recognize their rights through associations and by demonstrating their social value with public procurement contracts like the PAA. Throughout Brazil, the settlement farmers are already playing a larger role in their greater communities and studies suggest the settlers are becoming major taxpayers, consumers, and employers there as well (Rosset, 1999, 2006b; Heredia et al. 2006). In the Pontal, the settlements are increasingly important to the vitality and the commercial development of nearby communities (Souza and Hespanhol, 2006). I argue that smallholder farmers on agrarian reform settlements can also manage to pressure the government and society to recognize their rights through programs like the PAA. By demonstrating that they are socially and economically key to Brazil's food sovereignty, the settlers can gain respect in the eyes of the government and their own communities.

To implement this pillar of food sovereignty in the PAA, there needs to be an effort by the government and its administering departments to value and

include the settlers in the planning and production process. Settlers participating in the PAA need to be recognized for their contributions to the fight against food vulnerability. In order for the PAA to meet the criteria of this pillar of food sovereignty, the government must open up adequate credit access for participating settlers, not just for large-scale producers. By enabling access to credit as it does for large producers, the government would show that it values the social and economic contributions of the settlers by helping reduce food vulnerability. On the other hand, the execution of the PAA necessitates increased participation and decision-making by the participating farmers themselves. While the conditions to participate may not always be ideal to them, the positive feedback of the program provided during the interviews revealed that the settlers valued the opportunities they attained through the PAA. The PAA provides the settlers with a small opening to take a pro-active role in their communities and particularly within their communities' food systems, despite the structural political and economic barriers they encounter as a subordinate group.

Re-organize Food Trade to Prioritize Local Food Systems

In La Vía Campesina's food sovereignty model, governments should encourage regulated local food systems with prices that reflect the real cost of producing food in order to ensure income for even the smallest producers. Additionally, La Vía Campesina believes that it "is unacceptable that the trade in foodstuffs continues to be based on the economic exploitation of the most vulnerable – the lowest earning producers – and the further degradation of the environment" (cited in Wittman et al. 2010, p. 198). For smallholder farmers in the Pontal, food sovereignty in local food systems would entail not having to sell their products at exploitative prices. This section will explore how the PAA may help settlers commercialize their products outside the program in local markets.

In contrast to the neoliberal model to food security that sources food through a market that, in turn, sources it from the cheapest available location, the

PAA in the Pontal prioritizes sourcing food for local consumption from local markets. Farmers obtain reliable prices in a diminished risk setting to produce food for regional consumption if they sell through the PAA. Regionally set prices also help the farmers sell their products for higher prices at farmers markets and to other distributors, as farmers reported that they use the PAA prices as a reference point in negotiations with middlemen (Chmielewska & Souza, 2010; Rocha, 2009). Additionally, the settlers must adapt to the PAA's packaging and delivery standards. This adaptation means that farmers have a better chance commercializing their goods on their own in farmers markets or obtain better prices through wholesalers, who might use the lack of packaging as an excuse to buy from the farmers at a lower price.

Through the PAA, settlers may be more aware of price guidelines and packaging standards but if they do not have more commercialization opportunities, local food systems beyond the program will not be strengthened. Although there are weekly farmers markets all throughout the Pontal, many settlers interviewed did not sell directly at the markets. The weekly two-day farmers' market in downtown Presidente Prudente is the largest weekly farmers' market in the Pontal, taking over the main road of Avenida Manuel Goulart. It attracts customers from all over the city and is particularly popular with downtown residents and students from the nearby university, who like that the prices are lower than at the local supermarkets. This market, however, is largely composed of wholesalers who purchase their goods at the CEAGESP warehouse and is often not composed of farmers themselves.

To encourage more settlers to sell directly at farmers markets in Presidente Prudente, the São Paulo state Land Institute (ITESP), municipal governments and various associations and co-operatives have set up annual agrarian reform farmers markets. A recent agrarian reform farmers market in downtown Presidente Prudente over the weekend of 11 December 2010 "exceeded the expectations" of its organizers, ITESP and the city of Presidente Prudente, with its popularity and overall quality. Customers liked the quality of

the goods available and liked the low prices (Governo de Presidente Prudente, 2010). This agrarian reform farmers' market in Prudente is an annual event and does not provide a major opportunity to continuously market settlers' goods but it remains important to the settlers who want to show Presidente Prudente – a city better known for housing the urban homes of *fazendeiros* than for supporting agrarian reform – that they can produce. Customers from Presidente Prudente were disappointed that this agrarian reform farmers market occurred for only one weekend a year. As settlers typically have limited access to local markets, events like these are important to show their larger communities that they can contribute.

Settlers interviewed during field research explained that since the PAA, they have been reconsidering their marketing options at local farmers' markets. The following case study will explore how settlers at the Gleba XV de Novembro settlement experienced a change in food marketing in their larger community before and after participating in the PAA.

Case Study: Gleba XV de Novembro

The settlement Gleba XV de Novembro is one of the oldest agrarian reform settlements in São Paulo state and was created by the government of São Paulo on the 15th of November 1985. It is located between the towns Euclides da Cunha Paulista and Rosana in the far southwest corner of the state. Although it was created before the MST came to São Paulo state in 1992, today many Gleba farmers are militants in the movement or support the MST (Interview 46, 30 October 2010). Gleba has 570 lots between 15 and 25 hectares each, making it one of the largest settlements in São Paulo. The settlement is divided into six zones and is large enough to support five schools in the municipality. The Gleba XV case is interesting largely because of the settlers' shift away from commodity crops towards production of food for the PAA, and as a result, at local farmers markets as well.

The Pontal do Paranapanema has long been a commodity-producing region but since 2003, the region has almost doubled sugarcane production from 71,095 hectares to 152,027 hectares (Fernandes et al., 2010, p. 799). This is due to increased demand for sugarcane agrofuels in both Brazil and abroad (Holt-Gimenez & Shattuck 2010, 2011). Gleba XV lies in the heart of sugarcane country and is close to many sugar mills and refineries (*usinas*). Refineries are increasingly looking to nearby settlements for new sources of sugarcane as the cane can only be processed into sugar or ethanol locally before breaking down. A recent study by Fernandes et al. (2010) revealed that the settlers from Gleba XV who rented their land through a government-sponsored program to local refineries for sugarcane production lost substantial amounts of money when the refineries spent their PRONAF credit, and then did not pay for the final harvests, deeming them 'below standard'. The participating farmers discovered that their land's productive capacity was damaged by the refinery's alleged heavy use of chemical inputs. Even though this was a government-sponsored program, the settlers had no financial protection when the business deal failed.

Although sugarcane for ethanol is the most recent commodity trend in the Pontal (see Chapter 2), Gleba XV settlers had difficult financial experiences growing other monocultures as well. "A while back we planted cotton and when we arrived in the city the middlemen could later sell the cotton for 20 *reais* (\$12.50 CDN) a bushel but buy it from us at only 10 or 12 *reais* (\$6.25 - \$7.50 CDN) a bushel, keeping the other half," explained a Gleba XV settler now participating in the PAA (Interview 48, 30 October 2010). The settler explained that this still occurs and many settlers simply stopped producing. "Cotton takes a lot of work – you have to apply pesticides and you need many people to harvest it," explained another Gleba XV settler. "You have to harvest it quickly or else when it starts to rain it goes bad and you lose everything." (Interview 37, 29 October 2010). This situation is unfortunately common – roughly a quarter of settlers in São Paulo state express difficulty or extreme difficulty commercializing

their products (INCRA, 2010). The settlers found themselves in a situation typical of the conventional chain of production.

In sharp contrast, by the end of 2010 there were five settlers' associations participating in the PAA, focusing on sustainable production oriented to local food consumption. Settlers in Gleba XV are particularly passionate participants in the PAA, including the school lunch program, as explored in Chapter 3. Those interviewed who were not a part of the program were eager to enter and/or were supportive of the program's goals. The structure of PAA payments in particular was popular amongst the settlers who liked the idea of payments year round as opposed to the precariousness of end of season payments. Farmers also liked the guaranteed prices. Additionally, farmers liked that they could see the results of their food production within their own community. That said, many farmers interviewed would produce vegetables for the PAA but continued producing coffee or manioc for conventional markets; the PAA still only acts as supplementary income for most of the settlers interviewed.

Some Gleba XV settlers and settlers associations sold any excess produce that they could not sell with the PAA at smaller farmers' markets throughout the Pontal. The settlers see these smaller farmers' markets as an opportunity to sell their surplus produce without having to deal with the wholesalers at the CEAGESP. "The supermarkets buy from CEAGESP but they buy at a price that is much too low so for us we just don't bother there," explained a settler from Gleba XV (Interview 43, 30 October 2010). Before the PAA and the PNAE, settlers would not typically grow greens for market. "Before the PAA, we had greens but you know what happened? It always went bad!" a Gleba XV settler now participating in the PAA explained. "And you had to sell it fast because if you did not, it would spoil." (Interview 38, 30 October 2010). Now that settlers had a secure market for greens and other vegetables with the PAA, they no longer worried about spoilage, instead seeing the surplus as an opportunity to supplement their incomes or a way to supplement their diets.

Settlers producing greens and other vegetables for the PAA also commented that they ate more from their expanded and diversified *hortas*, or kitchen gardens.

One settler explained that she sells the vegetables and greens that she does not sell through the PAA at small farmers' markets in nearby Rosana and Euclides da Cunha each week. Although she did not participate in the main farmers' market each weekend in Presidente Prudente, the settler would even go as far as Presidente Prudente's Ana Jacinta suburb – still a two-hour drive – finding that it would be worth the trip (*valeu a pena*) to sell at the suburb's small weekly market. Depending on the time of the year, she explained, she could sell her greens for more than the amount that she would receive with the PAA, complementing her income. At the time of the interview, local prices for lettuce were almost four times the amount that the PAA was paying (R\$0.56 or \$0.35 CDN) a head in the PAA versus R\$2 (\$1.25 CDN) a head at the farmers' market), likely due to a 3 month drought followed by heavy rainfall in the region, limiting the local supply. She admitted, however, if she went to the CEAGESP (the publicly run wholesaler) in Presidente Prudente, she would make less than the PAA price (Interview 38, 30 October 2010).

The localization of production, a distinct change from the neoliberal commodity supply chain, created a sense of community around Gleba XV and educated the settlers on marketing standards and fair prices for their local markets. Other studies from the south and northeast of Brazil indicated that produce prices raised slightly because of the PAA; however, with these increases quality and product safety also improved due to government inspections (Chmielewska & Souza, 2010; Delgado, Conceição & Oliveira, 2005; Rocha, 2009). Because the PAA offered minimal risks but decent returns, the settlers felt that they had a steady supplementary income. Unlike the Chmielewska and Souza study in Sergipe (2010), settlers interviewed in the Pontal claimed not to be entirely dependent on the PAA for their income, instead seeing it as a useful side-income. Instead, at the time of research, Pontal farmers depended on one or two main crops for their main income.

The participating farmers also liked that they could reach out to their community through the PAA's local programs and through the local markets where they sold their excess products, creating new personal and commercial relationships. With the PAA and local markets, the settlers felt that they had more control over their production and marketing opportunities than they had had with commodity production. Additionally, CONAB packaging and safety criteria for participation in the program makes the settlers' products more acceptable in different markets; however, the expansion into local marketplaces outside of the PAA was largely the interviewed settlers' initiative and was not assisted by the government.

Although the PAA does not directly regulate local markets as per the criteria of La Vía Campesina's food sovereignty framework, it does indirectly support reasonable prices for the settlers. Most significantly, with the PAA settlers interviewed became more conscious of fair prices for their products, basing them on the region's PAA prices, and had improved their commercialization standards in product quality and packaging.

Protect Natural Resources and Preserve Biological Diversity

A main component of La Vía Campesina's food sovereignty is the protection and preservation of natural resources and biological diversity. Both La Vía Campesina and its member movement in Brazil, the MST, promote a shift away from the industrialized agriculture of the postwar and neoliberal food regimes towards sustainable agriculture. Instead of a dependency on agro-chemicals, cash-crop monocultures, and industrialized production models, the food sovereignty approach advocates biological diversity in production and the protection of natural resources.

One of the mandates of the PAA is to promote agro-ecology and the program pays 30% more for certified-organic products (CONAB, 2006, p. 6). Agro-ecology is "the application of ecological concepts and principles to the

design and the management of sustainable agro-ecosystems” (Altieri, 2010, p. 121). Hespanhol (2008) notes that settlers are more willing to practice agro-ecology when there is a guaranteed market or commercialization opportunity for its products available. The saying “A farmer in the red will not think green” (*O agricultor no vermelho não pensa no verde*), is commonly heard throughout the Pontal. By encouraging food crop diversity and careful planning, the PAA encourages biodiversity and preservation.

Settlers participating in the program also felt morally obligated to use organic means to grow their crops because of the crops’ orientation for consumption in schools and other public facilities. Many settlers of Gleba XV producing for the PAA remarked that it was important that they grow the crops without the unnecessary use of pesticides and herbicides because they knew that the products would feed the community’s children at the local school. According to a settler at Gleba XV:

For the most part, [the PAA] is for the children. It’s not good for a child to eat a vegetable that had agro-toxics used on it. For example, if I ingested an agro-toxic, well I’m already old, but for a child, for a child can you imagine a child eating poison (*veneno*)? If a poison doesn’t hurt them now, it might hurt them later.

(Interview 38, 29 October 2010).

Another settler interviewed from Gleba XV (Interview 39, 30 October 2010) specifically did not use pesticides on her PAA production because she knew that the food was bound for a cancer clinic in Barretos, São Paulo and did not feel comfortable exposing cancer patients to what she called poison (*veneno*). Many other settlers interviewed did not feel comfortable using pesticides or other potentially toxic inputs. A few explained that pesticides were an inevitable part of production but they did not like to use them in abundance. Some settlers commented that they believed that their previous use of pesticides had made them ill. All the settlers interviewed also remarked that they preferred to grow the food themselves in kitchen gardens largely because they could then know that it was safe to eat and pesticide-free. Many also believed that this

guaranteed that the food was healthier (*mais saudável*) although not always as pretty (*bonita*). All settlers interviewed felt uncomfortable eating food from the supermarket if they could not be certain that pesticides had not been used.

The government is also promoting organic production and is specifically promoting agro-ecology. In 2010, the Brazilian government created the National Policy for Technical Assistance and Rural Extension or PNATER (*Política Nacional de Assistência Técnica e Extensão Rural*). The policy is oriented towards agro-ecological production, maintaining bio-diversity, helping farmers work in associations, and improving the smallholder farmer's livelihoods (MDA, 2010). Although settlers interviewed felt an obligation not to use pesticides particularly in the PAA, the vast majority of settlers in Brazil do not practice agro-ecology or organic agriculture in any form (INCRA, 2010). Those interviewed trying to practice agro-ecology found it difficult to access support. The problem with acquiring agro-ecological knowledge lies with the absence of sufficient technical assistance.

In São Paulo, the settlements attain technical assistance and rural extension through ITESP (*Fundação Instituto de Terras do Estado de São Paulo* or São Paulo State Land Institute) or INCRA (*Instituto Nacional de Colonização e Reforma Agrária* or National Institute of Colonization and Agrarian Reform). About 107 of the 111 settlements in the Pontal are covered by ITESP, and there are not enough technicians to work with all the settler families. "At times it's one person per 120 families, which is just an overload. It should be one *técnico* for 50 families – maximum," explains an INCRA technician who is himself a settler (Interview 47, 30 October 2010). In the settlements where I conducted my research, settlers reported that state technical assistance is often non-existent. "If the *técnico* comes, he passes by the house at a thousand kilometres an hour and you have to follow behind him with your *moto* [small motorcycle]," joked one settler (Interview 24, 13 September 2010).

When the *técnico* does manage to come, he or she has a dual role. The technician must help with agronomic questions like soil management and make

recommendations to the settlers. The agent must also to help the settlers navigate projects available in the region and help them with the accompanying bureaucracy. The use of the PAA as a tool to promote agro-ecology assumed that all settlers already had or would have frequent access to the technicians, which as fieldwork and other studies revealed, is unlikely (Chmielewska & Souza 2010; da Silva, Fernandes & Valenciano, 2006; Hespanhol, 2008).

Despite its necessity as an aspect of agrarian reform, a recent survey in the Pontal discovered that 83% of the 421 settlers surveyed did not receive any technical assistance when it came to production, processing, or commercialization (da Silva et al., 2006, p. 255). When asked about their knowledge of ITESP-developed programs on the settlements, only 24% of settlers replied that they had some knowledge. The situation is worse with municipally developed programs (ranging from agronomy workshops to health clinics) with 98% of settlers in the region having no knowledge of such programs in the Pontal municipality of Teodoro Sampaio (da Silva et al., 2006, p. 255-283). Without active outreach by an extension worker, many farmers living in isolated rural communities like the settlements may not be certain about how to enter the program or may not be aware of other programs or projects that may aid their production. Although the PAA may appear to promote agro-ecology on paper, without adequate technical assistance the program cannot promote a transition towards the food sovereignty framework. The following case study will attest to the difficulties of implementing agro-ecological practices without adequate assistance in the Margarida Alves settlement in the Pontal.

Case Study: Agro-forestry and PAA in Assentamento Margarida Alves

The Margarida Alves Settlement lies within the Mirante do Paranapanema municipality in the heart of the Pontal. Although the Margarida Alves settlement was only four years old in 2010, at the time of research, the settlers were already active participants in the PAA. The settlement is the home to ninety settler families. Currently there are two associations in the settlement, both participating

in the PAA. The food they produce is marketed to local schools and daycares in the nearby municipalities of Mirante do Paranapanema, Cuiabá Paulista, and Teodoro Sampaio.

What makes Margarida Alves unique is that it also functions as a legal nature reserve. As the settlement is on land that was once a nature reserve before *fazendeiros* cleared it, the settlers must leave a part of their lot forested or participate in a reforestation project, giving the farmers an opportunity to practice agro-forestry with state support. Agro-forestry, or a “type of land management in which woody perennial plants are grown on the same land management units as agricultural crops, in either a particular spatial arrangement or in a temporal sequence and with ecological and economic interactions between the different components” (Valladares-Padua et al., 2002, p. 74) has many potential benefits for the settlement farmers. These include an increase in soil fertility and organic matter, an improvement in microclimate, an enhancement of nutrient cycling, a reduction in detrimental wind effects, an improvement in weed and pest control, a decrease in fertilizer requirements and increased economic sustainability amongst others. Those practicing agro-forestry in the settlement found that it had many benefits including an increase in family food availability and increased crop diversity for entry into PAA. This idea has been embraced by some of the settlers, but not by all. A settler practicing agro-forestry explains:

People have a vision that having a legal reserve in our settlement, in our lots – we’re going to lose land. No – we have to show that we are actually gaining ground. It is in this reserve area here that we get food, a part we can give to the cattle for grazing. From it we get income from dairy, from practicing agro-forestry, and from all this, aggregated incomes. Like here, we’ve increased our income from pineapples, cattle, and greens. I mean, it’s not about a single crop generating income – we’ve got three crops that generate income. Before we had *maracujá* (passionfruit) and produced nothing more – but now we have more. The purpose of SAF [agro-forestry system] is to increase the income of families within the legal nature reserve. There has to be native and exotic trees – we have quotas. Now if you wanted a closed reserve with no farmers and just forest – you could do that. But we opted to practice agro-

forestry because we can work between the trees.

(Interview 31, 20 October 2010)

Those practicing agro-forestry see restoring forestland as a responsibility as well as an opportunity. Settlers practicing agro-forestry within the PAA grew several crops in-between a variety of trees but settlers explained agro-forestry was working particularly well with fruit production. Several settlers grew pineapples between fruit and other native trees. The products on and between the trees were destined for the PAA, for conventional markets, and for their own kitchens.

The agro-forestry project at the Margarida Alves settlement is led by the Ministry of Agrarian Development (MDA) with technical support given in part by INCRA. The MST's CO-CAMP (Agrarian Reform Settlers' Cooperative of the Pontal or *Cooperative dos Assentados da Reforma Agrária do Pontal*) based in nearby Teodoro Sampaio is also helping and the former technician for the settlement is affiliated with a local environmental NGO, IPÊ. This project aimed to use the settlements to connect the Pontal's remaining Atlantic Forest reserves, facilitating movement of flora and fauna between the reserves in order to recreate the Atlantic Forest's biodiversity. Approximately eight settlers from Margarida Alves were actively participating in the agro-forestry program at the time of research but as the whole settlement is also part of a nature reserve, the remaining farmers must also maintain roughly 20% of their lots forested or risk a fine.

Although there are many long-term benefits to practicing agro-forestry, the positive results are not initially apparent and require some experimentation. Many settlers are not familiar with agroforestry techniques and need to turn to *técnicos*, environmental stewardship NGOs like IPÊ, their neighbours, or relatives to learn how to practice agro-forestry. The former INCRA technician for Margarida Alves also worked for IPÊ and taught the settlers many agro-ecological skills while he was assisting them including the use of cow urine as a natural pesticide and the incorporation of certain flowers to deter harmful pests.

At the time of interviews there was no longer an extension technician working with the settlement or available on call. The agro-forestry program no longer had access to technical support from INCRA, the project's chief sponsor. One settler explains:

I saw [INCRA extension technicians] here and they brought some tree saplings, some bushes – it was the extension technicians who brought them at the beginning. But after that, the technicians changed, it's still changing and pronto. I don't see the technicians around here anymore.

(Interview 33, 18 October 2010).

Without the assistance, some farmers have dropped out of the project and are not concentrating on expanding reforestation or sustainable production. The settlers had become disenchanted with the government's promises and, as a result, some interviewees had reverted to non-organic agriculture, using pesticides and monocultures. In order for PAA to achieve its goal to promote agro-ecological production and to fit within the food sovereignty framework, the Brazilian government needs to provide more consistent technical assistance and rural extension. Additionally, if the government wants to protect its investments with the PAA, it should take a pro-active approach by increasing and improving technical assistance and extension.

Chapter Conclusion

This chapter concludes that the goals of the PAA appear to fit within a food sovereignty framework but in practice, more investment needs to be made in the program itself and in government support programs in order to transition towards a food sovereignty regime. While the state has set up the guidelines for the program, it does not provide enough support to sufficiently activate its own food sovereignty goals or to activate the food sovereignty framework based on La Vía Campesina's pillars.

The chapter highlighted several key hurdles to achieving these goals. In the instance of the agro-forestry project in Assentamento Margarida Alves, the lack of technical assistance put the project on hold despite the project's positive social, economic, and ecological potential. Additionally, as the PAA only acts as a supplementary income for the settlers of the Pontal, farmers must still find their main income in cash crops or work off the farm. Although the PAA does help the settlers improve their commercialization standards, it does not necessarily open up new markets for the settlers. Instead, the farmers can seek out new opportunities on their own, using the skills they acquired participating in the program. In addition, the chapter concludes that the difficulty attaining credit limits the settlers' participation in the PAA. As long as the government inhibits access to rural credit, it limits the expansion of a program that addresses a quarter of Brazil's food vulnerability (Chmielewska & Souza 2010, p. 4).

While the PAA was developed as part of Fome Zero to strengthen food security and smallholder agriculture, these changes depend on the continuous and aggregated support of all parties involved. In order to go beyond food security and attain food *sovereignty*, it is necessary to address the current lack of monetary and structural support that will translate its principles into practice.

Chapter 5

Conclusion

This thesis began by identifying how the current neoliberal food regime does not necessarily address the structural causes of food vulnerability and often creates new obstacles to resolving the problem. In particular, this thesis explored how the neoliberal-food regime's approach to production, like its predecessor, the postwar regime, is ecologically unsustainable in Brazil. It also investigated how the regime's globalized supply chain does not guarantee access to less expensive food, as evidenced by the consistent world food crises since 2006 (Holt-Giménez & Shattuck, 2011; Otero & Pechlaner, 2009; Rosset, 2008; McMichael, 2009b). This inability to sustainably address food vulnerability, perhaps the most vital component of any country, economy, or household, suggests that a new approach to food security or even a new food regime must be established.

A food sovereignty regime, in contrast, would prioritize addressing the structural causes of food vulnerability like poverty, unemployment, and access to healthy foods while promoting a food system that values sustainability, social justice, and the right to food (La Vía Campesina, 1996, 2007; Fairbairn, 2010; McMichael, 2009a). Through this thesis, I examined the challenges of such a task by examining the Food Acquisition Program (the PAA) in the context of the Pontal do Paranapanema. As many of the key goals of the PAA align with the pillars of food sovereignty, the program presented an ideal opportunity to investigate this potential transition. In particular, this thesis investigated how the Food Acquisition Program (PAA) attempts to fill the need for food sovereignty in the Pontal do Paranapanema and specifically explored the challenges the Brazilian government faces in implementing pillars of food sovereignty such as agro-ecology, localizing food supply chains, and promoting social and economic

participation in the Pontal's communities. It also explored how the program's participants and potential participants, particularly settlers of agrarian reform settlements, perceived the program upon entrance and in practice.

Table 8 Comparison of the Goals of a Neoliberal Food Regime, Potential Food Sovereignty Regime, and the PAA

Neoliberal Food Regime	Potential Food Sovereignty Regime	The PAA
Free trade and WTO management	Nationally or locally developed food security policy	Promote food security in communities and compile national stocks of food.
Globalized supply chains that encourage substitutability and potentially low prices	Food as a basic human right	Promote food security by giving food vulnerable access to food, as per their basic human rights guaranteed in the Brazilian Constitution
Neo-regulation of suitable market conditions for import/export	Reorganize food production to prioritize local production and fair prices	Guarantee an income and sustain fair prices for family farmers and restructure local and regional food supply chains.
Large-scale monoculture productions (comparative advantages)	Agrarian reform and smallholder production	Encourage agrarian reform settler associations and co-operatives and improve the quality of settler farmers' products.
Biotechnology and Green Revolution inputs	Sustainable production and biodiversity	Encourage agro-ecological methods and biodiversity in production

This thesis specifically explored the challenges of implementing food sovereignty through the PAA with two case studies based upon interviews and data collected in two of the four agrarian reform settlements I visited in the Pontal. The first case study I presented showed how settlers benefitted from the sense of community gained through the PAA's concentration on producing for social programs within and around the community. This recreation of local food

systems has had many benefits for communities in the Pontal including strengthened food security, strengthened community ties, and strengthened regional cultural bonds. Although these aspects were a major attraction for the Gleba XV settlers, the economic security provided by participation in the PAA, which allowed for planned deliveries and ensured monthly payments, was also a demonstrated benefit.

Gleba XV farmers also demonstrated that the program improved their marketing opportunities in other markets. Interviewed farmers were more motivated to participate in local food markets if these could provide more favourable financial conditions than large-scale commodity producers could. As the Gleba XV case suggests, the neoliberal regime attracted the farmers to produce commodities because of potential windfall payments. The risk involved in the neoliberal-food regime proved to be too great, however, and many farmers participating in it found that they experienced negative economic consequences. The combination of a guaranteed regular income and reduced risk proved to be a positive attribute of the PAA. This case suggests that participation in local food systems is contingent on favourable conditions of return and not simply on the returns themselves.

The second case study showed the complementary nature between the PAA's goal of food production and agro-ecological production methods, another key component of food sovereignty. In the case of Assentamento Margarida Alves, settlers practicing agro-forestry found that the PAA requirements for increased diversity worked well within their ecological framework. Originally a federal project to encourage reforestation on a settlement that also functions as a legal reserve, the project in Margarida Alves promoted sustainable food production in between tree cultures with the help of an INCRA technician. This case study demonstrated the ability of a locally focused food regime to promote sustainable livelihoods in a region that had been ecologically devastated by exploitative monocultures for export.

Unfortunately, fieldwork demonstrated that the expansion of agro-forestry in the settlement was inhibited by an insufficiency of technical assistance available to the farmers. At the time of study, there was no INCRA technician working with any of the settlers at Margarida Alves. As a result, the project was on hiatus and the farmers felt that they had been abandoned by the state. Farmers still practicing agro-forestry, however, were able to diversify production towards the new requirements of the PAA. Although one of the goals of the PAA is to encourage agro-ecological methods and bio-diversity in production, this cannot be done without a substantial commitment by state agencies to increase funding for training and support.

The PAA has the potential to support the implementation of a food sovereignty framework but the lack of support by governments, agencies, and even the participants themselves prevents the realization of its full potential. Because the PAA is a decentralized public program, it needs the full commitment of all the levels of government, all the participating agencies, and the participants to run effectively. While the Brazilian government is leaning in the direction of food sovereignty by prioritizing local production and markets, seeing food as an inherent right of its citizens, and valuing agro-ecological production in the PAA, it must also extend its commitment in practice with increased assistance to participants and communities. In the Pontal, settlers have grown to expect little or no state support, particularly in technical assistance, and rely on one another through associations or camaraderie by default. This situation is not isolated to the Pontal and is common in Brazil as a whole (Wolford, 2010).

This thesis explored how a program originating in a food security framework can branch out to have many different positive effects for smallholder farmers and their larger communities and actually promote a transition to food sovereignty. While the Brazilian government still values the contributions of the large landholders and agribusiness, the PAA demonstrates that smallholder farmers like the agrarian reform settlers of the Pontal play a vital role in reducing the country's food vulnerability. With the aid of semi-structured interviews and

government data, this thesis explored how the participating and non-participating settlers encountered the PAA and how the program invoked aspects of food sovereignty. Although I cannot definitively answer whether Brazil or the Pontal is on course towards a food sovereignty regime or whether the government is specifically trying to achieve food sovereignty, I contend that the Brazil's Food Acquisition Program (the PAA) in the Pontal do Paranapanema demonstrates many of food sovereignty's core principles in practice.

Recommendations for Future Research

This exploratory study of the PAA revealed several paths for further research. In particular, in-depth quantitative surveys exploring the socio-economic impacts on the participating smallholder farmers would be a complement to this exploratory qualitative study. A comprehensive survey on how the program affects the participating farmers, particularly on the settlements, would show how the PAA alters the socio-economic status of the participating producers. Additionally, such a study could potentially contribute to the growing literature on re-peasantization (van der Ploeg, 2010; Holt-Giménez, 2006).

The current lack of academic studies of the program necessitates additional quantitative studies and surveys. In particular, I contend that it would be worthwhile to pursue surveys into the production practices of farmers participating in the PAA. As the promotion of agro-ecological practices is one of the main goals of the program (CONAB 2006, p. 6) and farmers can receive 30% more in price if producing organically, an in-depth survey exploring production models used by the participating farmers would explore whether the program is meeting this goal and why. This type of survey should look to see if the program's mandate influences changes in production practices.

I contend that it would be worthwhile to pursue surveys on technical assistance as it relates to the PAA in the settlements in the Pontal. While da Silva et al. (2006) did a comprehensive study of the Pontal in 2006, the

introduction of the PAA in the region necessitates a new look at the region. The government's introduction of new technical assistance and rural extension policies (PRONATER) in 2010 also necessitates new studies on technical assistance in the settlements in general.

The introduction of the school lunch program (PNAE) or *merenda escolar* would provide another interesting exploratory project. Although the law mandating 30% of all school-lunch purchases come from smallholders with priority put on agrarian reform settlements, the program is still new and developing. I believe it would be useful to do a comparative study between the PNAE and the PAA. As the PNAE currently pays twice the amount per year as the PAA, it would be interesting to examine how the introduction of the PNAE has impacted the PAA supply. Additionally, I believe it is worthwhile to explore how the PNAE's supply demands impact participating farmers' production.

Works Cited

- Altieri, M. (2002). Agroecology: the science of natural resource management for poor farmers in marginal environments. *Agriculture, Ecosystems and Environments*. 1-24.
- Altieri, M. (2010). Scaling Up Agroecological Approaches for Food Sovereignty in Latin America. In H. Wittman, A.A. Desmarais and N. Wiebe (Eds.) *Food Sovereignty: Reconnecting Food, Nature and Community* (pp. 106-119). Winnipeg: Fernwood Publishing.
- Andrade, L. (2008). Um Plano Agrícola Que Não Convence. In *Dinheiro Rural*. Ano 5 Edição 046 August. 23-25.
- Araghi, F. (1995). Global Depeasantization: 1945-1990. *Sociological Quarterly* 36(2). 337-368.
- Bello, W. (2009). *The Food Wars*. London: Verso.
- Bello W. And M. Baviera (2010). Capitalist Agriculture, the Food Price Crisis & Peasant Agriculture. In H. Wittman, A.A. Desmarais and N. Wiebe (Eds.) *Food Sovereignty: Reconnecting Food, Nature and Community* (pp. 62-75). Winnipeg: Fernwood Publishing.
- Bové, J. and F. Dufour (2000). *The World is not for Sale: Farmers against Junk Food*. London: Verso.
- Branford, S. and J. Rocha (2002). *Cutting the Wire: The story of the landless movement in Brazil*. London: Latin American Bureau
- Busch, L. (2010). Can Fairy Tales Come True? The Surprising Story of Neoliberalism and World Agriculture. *Sociologia Ruralis*. Vol. 50, 4. 331-351.
- Caldeira, R. (2008). 'My Land, your social transformation': Conflicts within the landless people movement (MST), Rio de Janeiro, Brazil. *Journal of Rural Studies*. 24 (2008). 150-160.
- Campbell, H. (2009). Breaking new ground in food regime theory: corporate environmentalism, ecological feedbacks and the 'food from somewhere' regime? *Agricultural Human Values*. 26. 309.
- Cassal, G. (2008, May 4). O Brasil e a crise mundial de alimentos. *Folha de São Paulo*.

- Chmielewska, D. and D. Souza (2010). *Market Alternatives for Smallholder Farms in Food Security Initiatives: Lessons from the Brazilian Food Acquisition Programme*. Working Paper number 64. .
- Collier, P. (2008). The Politics of Hunger: How Illusion and Greed Fan the Food Crisis. *Foreign Affairs* 87, 6.
- CONAB (2010). Companhia Nacional de Abastecimento. Retrieved from <http://www.conab.gov.br>
- CONAB (2006). *Oficina de Documentação Participativa do Programa de Aquisição de Alimentos da Agricultura Familiar – PAA Região Sudeste. Iperó, 21-23 June 2006.*
- Coordenação Nacional do MST (2009). O papel estratégico da agroecologia para o MST. *Revista Sem Terra Edição Especial Agroecologia*. 2009/2010. 10-14.
- Da Silva, A., B.M. Fernandes, & R.C. Valenciano (2006). *Desenvolvimento Territorial e políticas públicas no Pontal do Paranapanema*. São Paulo: UNESP.
- DATALUTA (2010a). *Banco de Dados da Luta pela Terra: Relatório Brasil 2009*. Available from: <http://www.fct.unesp.br/nera>
- DATALUTA (2010b). *Banco de Dados da Luta pela Terra: Relatório Pontal do Paranapanema 2009*. Available from: <http://www.fct.unesp.br/nera>
- Davis, M. (2001). *Late Victorian Holocausts: El Niño famines and the making of the third world*. London, New York: Verso.
- De Castro, J.. (1952). *The Geography of Hunger*. Boston: Little Brown and Company.
- De O Povo (2011, March 31). “Agronegócio e agricultura familiar são incompatíveis” Retrieved from: <http://www.mst.org.br/node/11471>
- Delgado, G.C., J.C. Conceição & J.J. Oliveira (2005). *Avaliação do Programa de Aquisição de Alimentos da Agricultura Familiar (PAA)*. Brasília IPEA Texto para Discussão No. 1145.
- De Schutter, O. (2010). Human Rights Council Report on the right to food: Agroecology. 20 December 2010. Retrieved from: http://www.srfood.org/images/stories/pdf/officialreports/20110308_a-hrc-16-49_agroecology_en.pdf
- De Schutter, O. (2009). Mission to Brazil. Retrieved from: http://www.srfood.org/images/stories/pdf/officialreports/20100305_a-hrc-13-33-add6_country-mission-brazil_en.pdf

- Desmarais, A. (2007). *La Vía Campesina: Globalization and the Power of Peasants*. Winnipeg: Fernwood Publishing
- Desmarais, A. (2002). The Vía Campesina: Consolidating an International Peasant and Farm Movement. *Journal of Peasant Studies* 29(2):91-124.
- Fairbairn, M. (2010). Framing Resistance: International Food Regimes & the Roots of Food Sovereignty. In H. Wittman, A.A. Desmarais and N. Wiebe (Eds.) *Food Sovereignty: Reconnecting Food, Nature and Community* (pp. 15-32). Winnipeg: Fernwood Publishing.
- FAOSTAT (2011). FAOSTAT. Retrieved from <http://faostat.fao.org/>
- Feira da Itesp*. (2010). . Retrieved from http://www.youtube.com/watch?v=Url9LjfeRdY&feature=youtube_gdata_player
- Fernandes, B. M., Welch, C. A., & Gonçalves, E. C. (2010). Agrofuel policies in Brazil: paradigmatic and territorial disputes. *Journal of Peasant Studies*, 37(4), 793. doi:10.1080/03066150.2010.512459
- Fernandes, B.M. (2000). *A Formação do MST*. Petrópolis: Vozes
- Fome Zero (2006). *O que é Fome Zero?* Retrieved from <http://www.fomezero.gov.br/o-que-e>
- Fome Zero (2011). *Alimentos do PNAE 2011 começam ser entregues nesta segunda-feira*. 25 February 2011. Retrieved from: <http://www.fomezero.gov.br/noticias/alimentos-do-pnae-2011-comecam-ser-entregues-nesta-segunda-feira>
- Franceschini, T., V. Burity and L. Cruz (2010). *Exigibilidade: Mechanisms to claim the human right to adequate food in Brazil*. Rome: FAO
- Friedmann, H. (1993). After Midas' feast: Alternative food regimes for the future. In Patricia Allen (Ed.) *Food for the future: conditions and contradictions of sustainability*. (pp. 213-233) New York: Wiley.
- Friedmann, H. (1995). "Food Politics: New Dangers, New Possibilities". In *Food and Agrarian Orders in the World-Economy*. Edited by Philip McMichael. Westport, Connecticut: Greenwood Publishing. 15-34.
- Friedmann, H. (2005). From Colonialism to Green Capitalism: Social Movements and Emergence of Food Regimes. In F. Buttel and P. McMichael (Eds.) *Research in Rural Sociology and Development: New Directions in the Sociology of Global Development*. 11, 227-264.
- Friedmann, H. and P. McMichael (1989). Agriculture and The State System - The Rise And Decline Of National Agricultures, 1870 To The Present. *Sociologia Ruralis* 29(2):93-117.

- Governo de Presidente Prudente (2010). *Município estimula comercialização dos trabalhos produzidos nos assentamentos da região*. 11 December 2010. Retrieved from: <http://www.presidenteprudente.sp.gov.br/site/noticias.xhtml;jsessionid=CF C9490862517A60102558DEE02F49F1?cod=10030>
- GRAIN (2009). *Corporate Candyland*. Retrieved from: <http://www.grain.org/seedling/?id=589>
- Gudynas, E. (2010). The New Bonfire of Vanities: Soybean cultivation and globalization in South America. *Development*. 2008 51(4). 512-518
- Heredia, B., L. Medeiros, M. Palmeira, R. Cintrão, S. Leite (2006). Regional Impacts of Land Reform in Brazil. In P. Rosset, R. Patel, and M. Courville (Eds.) *Promised Land: Competing Visions of Agrarian Reform*. (pp. 277-300) Oakland, California: Food First Books.
- Hespanhol, R. (2008). Agroecologia: Limites e Perspectivas. In Adilson Francelino Alves (Eds.) *Desenvolvimento territorial e agroecologia*. (pp. 117-136) São Paulo: Expressão Popular.
- Hoffman, R. & M.G. Ney (2010). Evolução Recente da Estrutura Fundiária e Propriedade Rural no Brasil. In J Gasques (Ed.) *A Agricultura Brasileira: desempenho, desafios e perspectivas*. (pp 45-65). IPEA
- Holt-Giménez, E. (2006). *Campesino a Campesino: Voices from Latin America's Farmer to Farmer Movement for Sustainable Agriculture*. Oakland, CA: Food First Books.
- Holt-Giménez, E & Shattuck, A. (2010). Agrofuels & Food Sovereignty: Another Agrarian Transition. In H. Wittman, A.A. Desmarais and N. Wiebe (Eds.) *Food Sovereignty: Reconnecting Food, Nature and Community* (pp. 76-90). Winnipeg: Fernwood Publishing.
- Holt Giménez, E., & Shattuck, A. (2011). Food crises, food regimes and food movements: rumblings of reform or tides of transformation? *Journal of Peasant Studies*, 38(1), 109. doi:10.1080/03066150.2010.538578
- Howard, A. (1947). *Soil and Health*. New York: The Devin-Adair Company.
- IBGE (2006). *Instituto Brasileiro de Geografia e Estatísticas: Censo Agropecuário 2006*. Retrieved from: <http://ibge.gov.br/home/>
- IBGE (2010). *Instituto Brasileiro de Geografia e Estatísticas*. <http://ibge.gov.br/home/>
- IFAD (2010). Rural Poverty: Strategic partnerships breathe life and hope into an impoverished community in Brazil. Accessed 18 January 2010. <http://operations.ifad.org/web/guest/country/voice/tags/brazil/camara>

- Institui a Política Nacional de Assistência Técnica e Extensão Rural para a Agricultura Familiar e Reforma Agrária - PNATER e o Programa Nacional de Assistência Técnica e Extensão Rural na Agricultura Familiar e na Reforma Agrária - PRONATER, altera a Lei no 8.666, de 21 de junho de 1993, e dá outras providências.v. (de de). .
- INCRA (1980). 'Instrução Especial/INCRA/Nº. 20, de 28 de Maio de 1980'. *Diário Oficial*.
- INCRA (2010). *Pesquisa de Avaliação da Qualidade dos Assentamentos de Reforma Agrária*. Retrieved from: <http://pqra.incra.gov.br/>
- Instituto Humanitas Unisinos (2011). *Alimentos mais caros, e nas mãos de poucos. Dez empresas dominam mercado global e dificultam reação à alta de preços*. Retrieved from: http://www.ihu.unisinos.br/index.php?option=com_noticias&Itemid=18&task=detalhe&id=40835
- ITESP (2010a, May 13). *Itesp participa de grupo da lei da Merenda Escolar*. Retrieved from: http://www.itesp.sp.gov.br/br/info/noticias/ntc_850.aspx
- ITESP (2010b, February 21). *Merenda Escolar: sucesso em 2010 e grandes planos para 2011*. Retrieved from: http://www.itesp.sp.gov.br/br/info/noticias/ntc_946.aspx
- Jornal do Brasil (2010, December 16). *Brasileiro come menos arroz com feijão e mais cerveja*. Retrieved from: http://www.correiadoestado.com.br/noticias/brasileiro-come-menos-arroz-com-feijao-e-bebe-mais-cerveja_90834/
- Júnia, R. (2010, December 4). *Novas perspectivas com a agroecologia na merenda escolar*. Retrieved from: <http://www.mst.org.br/Novas-perspectivas-com-a-agroecologia-na-merenda-escolar>
- Kloppenborg, J. (2010). *Seed Sovereignty: The Promise of Open Source Biology*. In H. Wittman, A.A. Desmarais, and N. Wiebe (Eds.) *Food Sovereignty: Reconnecting Food, Nature and Community* (pp. 152-167) Winnipeg: Fernwood Publishing.
- La Vía Campesina (1996). *The right to produce and access to land*. Voice of the Turtle. Retrieved from: <http://www.voiceoftheturtle.org/library/1996%20Declaration%20of%20Food%20-Sovereignty.pdf>.
- La Vía Campesina (2007). *Nyeléni Declaration. Sélingué Mali: Forum for Food Sovereignty*. Retrieved from: <http://www.foodandwaterwatch.org/world/global-trade/NyeleniDeclarationen.pdf/view>

- Leite, J. (1998). *A Ocupação do Pontal do Paranapanema*. São Paulo: Editora Hucitec/Fundação Unesp,
- Madeley, J. (2002). *Food for all: the need for a new agriculture*. New York: Zed Books.
- Martínez-Torres, M. E., & Rosset, P. M. (2010). La Vía Campesina: the birth and evolution of a transnational social movement. *Journal of Peasant Studies*, 37(1), 149. doi:10.1080/03066150903498804
- Martins, J. (2002). Representing the peasantry? Struggles for/about land in Brazil. *Journal of Peasant Studies*, 29 (3-4), April 2002. 300-335.
- Martins, A. (2009). Agroecologia: model que une alimentos saudáveis e luta por Reforma Agrária. *Revista Sem Terra Edição Especial Agroecologia*. 36-37.
- McMichael, P. (2008). The Peasant as 'Canary'? Not too early warnings of global catastrophe. *Development*. 51(4). 504-511
- McMichael, P. (2009a). A food regime genealogy. *Journal of Peasant Studies*, 36(1), 139. doi:10.1080/03066150902820354
- McMichael, P. (2009b). The World Food Crisis in Historical Perspective. *Monthly Review: An Independent Socialist Magazine*. Jul/Aug 2009. Vol. 61 Issue 3. 32-47
- McMichael, P. (2010). Food Sovereignty in Movement: Addressing the Triple Crisis. In H. Wittman, A.A. Desmarais and N. Wiebe (Eds.) *Food Sovereignty: Reconnecting Food, Nature and Community* (pp. 168-183). Winnipeg: Fernwood Publishing.
- MDA (2010). Nova Lei de ATER. Retrieved from: <http://www.mda.gov.br/portal/institucional/novaleideater>
- MDS (2010). *Segurança Alimentar e Nutricional*. Retrieved from: <http://www.mds.gov.br/gestaodainformacao/mdsemnumeros>
- MDS em Números (2010). MDS em Números. Retrieved from: <http://www.mds.gov.br/gestaodainformacao/mdsemnumeros>
- Mintz, S. (1995). Food and Its Relationship to Concepts of Power. In P. McMichael (Ed) *Food and Agrarian Orders in the World Economy*. Westport, Connecticut: Greenwood Press.

- Novo, A., Jansen, K., Slingerland, M., & Giller, K. (2010). Biofuel, dairy production and beef in Brazil: competing claims on land use in São Paulo state. *Journal of Peasant Studies*, 37(4), 769. doi:10.1080/03066150.2010.512458
- Otero, G. (1999). *Farewell to the Peasantry?: Political Class Formation in Mexico*. Boulder, Colorado: Westview Press.
- Otero, G. (2004). Global Economy, Local Politics: Indigenous Struggles, Civil Society and Democracy. *Canadian Journal of Political Science*. 37-2 June 2004. 325-346.
- Otero, G. (2008). Neoliberal Globalism and the Biotechnology Revolution: Economic and Historical Context. In G. Otero (Ed.) *Food for the Few: Neoliberal Globalism and Biotechnology in Latin America*. (pp. 1-30). Austin: University of Texas Press.
- Otero, G. and G. Pechlaner (2008). Latin American Agriculture, Food, and Biotechnology: Temperate Dietary Pattern Adoption and Unsustainability. In G. Otero (Ed.) *Food for the Few: Neoliberal Globalism and Biotechnology in Latin America*. (pp. 31-60). Austin: University of Texas Press.
- Patel, R. (2010). *The Value of Nothing: how to reshape market society and redefine democracy*. London: Portobello.
- Patel, R. (2007). Transgressing Rights: La Vía Campesina's Call for Food Sovereignty *Feminist Economics* 13,1.
- Pechlaner, G. and G. Otero (2008). The Third Food Regime: Neoliberal Globalism and Agricultural Biotechnology in North America. *Sociologia Ruralis*, Vol. 48, No. 4, October 2008. 351
- Pechlaner, G. and G. Otero (2010). "The Neoliberal Food Regime: Neoregulation and the New Division of Labor in North America" *Rural Sociology*. 75(2), 2010. 179-208.
- Perz, S.G. (2000). The Rural Exodus in the Context of Economic Crisis, Globalization and Reform in Brazil. *International Migration Review*. Vol. 34, No. 3. 842-991.
- Planalto (2009). Lei N. 11.947, de 16 Junho de 2009. Retrieved online http://www.planalto.gov.br/ccivil_03/_ato2007-2010/2009/Lei/L11947.htm
- Pritchard, B. (2009). The long hangover from the second food regime: a world-historical interpretation of the collapse of the WTO Doha Round. *Agriculture and Human Values* 26(4):297-307.

- Ramos, V. (2010, October 15). *Seca prejudica assentados no interior de São Paulo*. Retrieved from: <http://www.mst.org.br/Seca-prejudica-assentados-no-interior-de-São-Paulo>
- Roberts, P. (2008). *The End of Food*. Boston: Houghton Mifflin.
- Rocha, C. (2009). Developments in National Policies for Food and Nutrition Security in Brazil. *Development Policy Review*. 2009, 27(1), 51-66.
- Rosset, P. (1999). *Small is Bountiful*. Retrieved from: <http://www.mindfully.org/Farm/Small-Farm-Benefits-Rosset.htm>
- Rosset, P. (2006a). *Food is Different: Why We Must Get the WTO Out of Agriculture*. Blackpoint Nova Scotia: Fernwood Publishing
- Rosset, P. (2006b). Agrarian Reform as Part of Food Sovereignty. In P. Rosset, R. Patel, and M. Courville (Eds.) *Promised Land: Competing Visions of Agrarian Reform*. (pp 301-322). New York.: Institute for Food and Developmental Policy
- Rosset, P. (2008). Food Sovereignty and the Contemporary Food Crisis. *Development*. 2008, 51(4), 460-463.
- Rosset, P. M., Machín Sosa, B., Roque Jaime, A. M., & Ávila Lozano, D. R. (2011). The Campesino-to-Campesino agroecology movement of ANAP - in Cuba: social process methodology in the construction of sustainable peasant agriculture and food sovereignty. *Journal of Peasant Studies*, 38(1), 161. doi:10.1080/03066150.2010.538584
- Russo, O. (2011, February 18). *Agroecologia ou agronegócio?* Retrieved from: <http://www.correiocidadania.com.br/content/view/5508/9/>
- Schneider, S., & Niederle, P. A. (2010). Resistance strategies and diversification of rural livelihoods: the construction of autonomy among Brazilian family farmers. *Journal of Peasant Studies*, 37(2), 379. doi:10.1080/03066151003595168
- Schottz, V. (2009). *Compra da Agricultura Familiar Para a Alimentação Escolar – Uma Oportunidade Para o Campo Agroecológico*. Retrieved from: <http://cirandas.net/rede-semeando/grupos-de-pesquisa/compras-publicas-e-privadas/compra-agricultura-familiar-alimentacao-escolar.pdf>
- Scorza, A. (2009). *Programa de Aquisição de Alimentos (PAA) ganha parceria de mais um ministério. Alimentação escolar será reforçada*. Retrieved from: <http://www.mds.gov.br/saladeimprensa/noticias/noticias/noticias/programa-de-aquisicao-de-alimentos-paa-ganha-parceria-de-mais-um-ministerio-alimentacao-escolar-sera-reforcada/?searchterm=PNAE>

- Shiva, V. (1991). *The Violence of the Green Revolution: Third World Agriculture, Ecology, and Politics*. London and New Jersey: Zed Books.
- Smith, P. (2005). *Democracy in Latin America*. New York: Oxford University Press.
- Souza, S.P. and R. Hespanhol (2006). *Assentamentos rurais e a relação campo-cidade: o caso dos municípios de Rosana, Euclides da Cunha Paulista e Teodoro Sampaio (SP)*. UNESP. Retrieved from: <http://www4.fct.unesp.br/nivaldo/Pos-Graduacao/FCT-MESTRADO-DOCTORADO/TRABALHO-PONTAL-Sergio.pdf>
- Steinhart, P. (1981, October 25). The Second Green Revolution. *New York Times*. Retrieved from: <http://www.nytimes.com/1981/10/25/magazine/the-second-green-revolution.html>
- Takagi, M., M. Eduardo del Grossi and J.G. da Silva (2006). *The Zero Hunger Programme two years later*. Meeting of the Latin American Studies Association, San Juan, Puerto Rico. 15-18 March 2006.
- Territórios da Cidadania (2010, December 31). *Plano de Execução 2010 Bolsa Família*. Retrieved from: <http://www.territoriosdacidadania.org.br>
- Territórios da Cidadania (2011). *Territórios da Cidadania*. Retrieved from: <http://www.territoriosdacidadania.org.br>
- Timmer, C.P. (2008). The Impact of Supermakrets on Farmers, Consumers, and Food Security in Developing Countries. In *Nutrition and Health: Nutrition and Health in Developing Countries (Second Edition)*. Edited by R.D. Semba & M.W. Bloem. Humana Press: Totowa, NJ. 739-751.
- Trading Economics (2011). *Arable Land (Hectares) in Brazil*. Retrieved from: <http://www.tradingeconomics.com/brazil/arable-land-hectares-wb-data.html>
- UNDATA (2010). Population below national poverty line, rural, percentage. Accessed 19 January 2011. Last updated 15 September 2010. <http://data.un.org/Data.aspx?q=Brazil+Poverty&d=MDG&f=seriesRowID:583;countryID:76>
- UNICEF (2010). *Brazil Statistics*. Retrieved from: http://www.unicef.org/infobycountry/brazil_statistics.html
- US State Department (2010, March 8). *Background Note: Brazil*. Retrieved from: <http://www.state.gov/r/pa/ei/bgn/35640.htm>

- Valladares-Padua, C., S.M. Padua, & L. Cullen Jr. (2002). Within and surrounding the Morrod do Diabo State Park: biological value, conflicts, mitigation and sustainable development alternatives. *Environmental Science & Policy*, 5(1), 69-78.
- Van der Ploeg, J. (2010). The peasantries of the twenty-first century: the commoditisation debate revisited. *Journal of Peasant Studies*, 37(1), 1. doi:10.1080/03066150903498721
- Veltmeyer, H. (2009). The World Bank on "agriculture for development": a failure of imagination or the power of ideology? *Journal of Peasant Studies*, 36(2), 393.
- Vergara-Camus, L. (2009). The Politics of the MST: Autonomous Rural Communities, the State, and Electoral Politics. *Latin American Perspectives*. 2009; 36:178-191.
- Welch, C.A. (2006). Globalization and the Transformation of Work in Rural Brazil: Agribusiness, Rural Labor Unions and Peasant Mobilization. *International Labor and Working Class History*. No. 70, Fall 2006, 35-60.
- Wilkinson, H. & S. Herrera (2010). Biofuels in Brazil: debates and impacts. *Journal of Peasant Studies*. 37:4, 749-768.
- Wittman, H. (2009a). Reframing agrarian citizenship: Land, life and power in Brazil. *Journal of Rural Studies*. 25. 120.
- Wittman, H. (2009b). Reworking the metabolic rift: La Vía Campesina, agrarian citizenship, and food sovereignty. *Journal of Peasant Studies*, 36(4), 805. doi:10.1080/03066150903353991
- Wittman, H. (2010). Reconnecting Agriculture & the Environment: Food Sovereignty and the Agrarian Basis of Ecological Citizenship. In H. Wittman, A.A. Desmarais and N. Wiebe (Eds.) *Food Sovereignty: Reconnecting Food, Nature and Community* (pp. 91-104). Winnipeg: Fernwood Publishing.
- Wolford, W. (2010). Participatory democracy by default: land reform, social movements and the state in Brazil. *Journal of Peasant Studies*, 37(1), 91. doi:10.1080/03066150903498770
- World Bank (1993). *Overcoming Global Hunger*. Washington, DC.
- Wright, A & W. Wolford (2003). *To inherit the earth: the landless movement and the struggle for a new Brazil*. Oakland, CA: Food First Books.
- Ximenes, D. (2011, March 22). *PAA é modelo para países da América Latina*. 22 March 2011. Retrieved from: <http://www.fomezero.gov.br/noticias/paa-e-modelo-para-paises-da-america-latina>

Ximenes, D. & A. Scorza (2010, November 25). *Para Lula, PAA fortalece agricultura familiar e cumpre papel na soberania alimentar*. Retrieved from: <http://www.fomezero.gov.br/noticias/para-lula-paa-fortalece-agricultura-familiar-e-cumpre-papel-na-soberania-alimentar/?searchterm=soberania%20alimentar>

Appendix 1: List of Participants

Interview Number	Date	Location	Type of Respondent (Type/Sex)	PAA Participant	Main Crops
1	20 August 2010	Assentamento Rodeio	Settler, Male	Yes	Aquaculture, Cassava, Greens, Tomatoes
2	23 August 2010	Dairy Processor, Teodoro Sampaio	Co-ordinator/ Stakeholder, Female	N/A	N/A
3	11 September 2010	Assentamento Antonio Conselheiro	Settler/MST Militant, Male	Yes	Milk, Greens, Tomatoes, Pigs
4	11 September 2010	Assentamento Antonio Conselheiro	Settler, Male	Yes	Coffee, Greens, Tomatoes, Milk
5	11 September 2010	Assentamento Antonio Conselheiro	Settler, Female	No.	Pineapple, Milk
6	11 September 2010	Assentamento Antonio Conselheiro	Settler, Male	No.	Milk, Papayas
7	11 September 2010	Assentamento Antonio Conselheiro	Settler, Male.	Yes.	Fruits, Greens, Tomatoes, Coffee, Milk
8	11 September 2010	Assentamento Antonio Conselheiro	Settler, Male	Yes	Cassava, Greens, Tomatoes, Milk
9	11 September 2010	Assentamento Antonio Conselheiro	Settler, Male	No	Coffee, Manioc, Milk
10	11 September 2010	Assentamento Antonio Conselheiro	Settler, Male	Yes	Greens, Tomatoes, Cassava, Milk
11	12 September 2010	Assentamento Antonio Conselheiro	Settler, Female	Yes	Coffee, Milk, Greens, Fruits
12	12 September 2010	Assentamento Antonio Conselheiro	Settler, Female	Yes	Milk, Cassava
13	12 September 2010	Assentamento Bom Pastor	Settler, Female	Yes	Milk, Greens, Tomatoes, Colorifico
14	12 September 2010	Assentamento Bom Pastor	Settler, Male	Yes	Greens, Tomatoes, Milk
15	12 September 2010	Assentamento Bom Pastor	Settler, Male	No	Aquaculture, Milk
16	12 September 2010	Assentamento Bom Pastor	Settler, Male	Yes	Greens, Milk, Papaya, Cassava
17	12 September 2010	Assentamento Bom Pastor	Settler, Female	Yes	Greens, Tomatoes, Milk, Fruit
18	12 September	Assentamento Bom	Settler, Male	Yes	Greens, Tomatoes,

	2010	Pastor				Milk, Fruit, Eucalyptus
19	12 September 2010	Assentamento Bom Pastor	Settler, Female	Yes		Greens, Milk, Tomatoes, Cassava, Eucalyptus
20	12 September 2010	Assentamento Bom Pastor	Settler, Male	Yes		Greens, Milk, Tomatoes, Cassava
21		Assentamento Bom Pastor	Settler, Female	Yes		Greens, Milk, Tomatoes, Fruit
22	14 September 2010	MST Agro-ecology Course, Presidente Prudente	Settler, Male	Yes		Greens, Tomatoes, Milk
23	14 September 2010	MST Agro-ecology Course, Presidente Prudente	Settler, Female	No		Milk, Greens, Tomatoes
24	14 September 2010	MST Agro-ecology Course, Presidente Prudente	Settler, Male	Yes		Milk, Pineapple, Greens, Tomatoes, Fruits
25	14 September 2010	MST Agro-ecology Course, Presidente Prudente	Settler, Female	Yes		Peanuts, Green Beans, Pumpkin, Greens, Tomatoes
26	14 September 2010	MST Agro-ecology Course, Presidente Prudente	Settler,, Female	No		Coffee, Milk
27	14 September 2010	MST Agro-ecology Course, Presidente Prudente	Settler, Male	Yes		Greens, Tomatoes, Milk, Fruits
28	19 September 2010	Assentamento Margarida Alves	Settler, Male	Yes		Fruits, Greens, Tomatoes, Milk
29	19 September 2010	Assentamento Margarida Alves	Settler, Male	No		Cassava, Milk
30	19 September 2010	Assentamento Margarida Alves	Settler, Male	Yes		Greens, Tomatoes, Fruit, Milk
31	15 October 2010	Assentamento Margarida Alves	Settler, Male	Yes		Greens, Tomatoes, Milk, Pineapple, Fruits
32	15 October 2010	Assentamento Margarida Alves	Settler, Female	Yes		Greens, Tomatoes, Cassava, Milk, Fruit
33	15 October 2010	Assentamento Margarida Alves	Settler, Female	Yes		Greens, Tomatoes, Cassava, Milk, Fruit
34	15 October 2010	Assentamento Margarida Alves	Settler, Male	Yes		Greens, Tomatoes, Fruit, Goat's Milk
35	15 October 2010	Assentamento Margarida Alves	Settler, Male	Yes		Greens, Tomatoes, Fruit, Cassava
36	29 October 2010	Assentamento Gleba XV de Novembro	Principal of a Public School, Female	N/A		N/A
37	29 October 2010	Assentamento Gleba XV de Novembro	Settler, Female	Yes		Greens, Cassava, Pumpkin, Fruit, Milk
38	29 October 2010	Assentamento Gleba XV de Novembro	Settler, Female	Yes		Fruit, Pumpkin, Greens, Tomatoes, Milk
39	30 October 2010	Assentamento Gleba XV de Novembro	Settler, Female	Yes		Watermelon, Cassava, Horticulture, Pumpkin, Milk
40	30 October 2010	Assentamento Gleba XV de Novembro	Settler, Male	Yes		Fruit (Mangos), Cassava, Greens, Tomatoes, Milk
41	30 October	Assentamento	Settler, Male	Yes		Milk, Fruit, Greens,

	2010	Gleba XV de Novembro				Chickens
42	30 October 2010	Assentamento Gleba XV de Novembro	Settler, Male	Yes		Cassava, Milk, Greens, Tomatoes
43	30 October 2010	Assentamento Gleba XV de Novembro	Settler, Female	Yes		Greens, Tomatoes, Milk, Fruits, Cassava
44	30 October 2010	Assentamento Gleba XV de Novembro	Settler, Female	Yes		Greens, Tomatoes, Milk
45	30 October 2010	Assentamento Gleba XV de Novembro	Settler, Female	No		Greens, Tomatoes, Milk
46	30 October 2010	Assentamento Gleba XV de Novembro	Settler/MST Militant, Male	Yes		Greens, Tomatoes, Milk, Fruits, Pigs
47	30 October 2010	Assentamento Gleba XV de Novembro	Settler/Extension Technician, Male	No		Greens, Tomatoes, Fruits, Milk
48	30 October 2010	Assentamento Gleba XV de Novembro	Settler, Male	Yes		Fruits, Greens, Tomatoes, Coffee, Milk
49	30 October 2010	Assentamento Gleba XV de Novembro	Settler, Female	Yes		Fruits, Greens, Milk, Squash
50	1 November 2010	Presidente Prudente	Settler, Male	Yes		Greens, Tomatoes, Milk, Cassava
51	1 November 2010	Presidente Prudente	MST Militant, Male	N/A		N/A.
52	7 November 2010	Presidente Prudente	Researcher (Gleba XV de Novembro and Agro-fuels)	N/A		N/A

Appendix 2: Interview Schedule

Name? *Nome?*

Age? *Idade?*

How many people live here? *Quantas pessoas moram aqui?*

How many years have you lived here? *Quantos anos você vive aqui?*

Do the people who live here work elsewhere as well? *As pessoas que moram aqui trabalham em outros lugares também?*

If so, where? *Se sim, onde?*

What do you grow on your farm? *O que você cultiva aqui? (sitio, lote)*

What factored into your decision to grow what you grow? *O que ou quem influenciou na sua decisão de cultivar estas culturas?*

How are you growing it? *Como está cultivando isso? Tem um trato de produção nas suas culturas? (Orgânico, com fertilizantes, agro-toxicos)*

Do you have the support of the agronomists to grow these crops this way? *Tem apoio dos agrônomos para cultivar seus produtos?*

Is the environment important to you when you are working on your lot?

Você pensa no meio ambiente quando você esta cultivando em seu lote?

Where do you sell what you grow? *O que você produz para vender e onde você vende estes produtos?*

Do you think it would be better if you produced or sold something different? *Acha que seria melhor se você cultivasse ou vendesse algo diferente?*

Are you participating in the PAA? *Você esta incluído no PAA?*

- a. **If yes, do you take pride in producing food for the community/program?** *Se sim: Vocês têm orgulho em produzir alimentos para a comunidade / programa?*
- b. **Do you know where the products go in the program?** *Você sabe para onde seus produtos vão com o programa?*
- c. **What do you think the government could do to improve the program?** *O que você acha o governo pode fazer para melhorar o programa?*

Could the government provide more support? *Você acha que o governo pode dar mais apoio nas formas do crédito ou técnica?*

Do you have a kitchen garden and why? *Você tem uma horta? Por que?*

Can you specify what you produce for family consumption? *Pode especificar o que vocês produzem para o consumo familiar?*

Is it important that you produce what your family wants or needs to eat?

É importante para você produzir o que sua família quer ou precisa comer?

Have you heard of Food Sovereignty and is it important to you? *Você já ouviu falar de “Soberania Alimentar”? Se sim, você consideraria importante para você?*

What do you think about food security? *O que acha de segurança alimentar?*