The politics of contemporary agrarian frontier-making:
insights from Matopiba region, Brazil

A Research Paper presented by:

Daniela Pessoa de Goes Calmon
(Brazil)
in partial fulfillment of the requirements for obtaining the degree of
Masters of Arts in Development Studies

Major:
Agrarian, Food and Environmental Studies
(AFES)

Members of the Examining Committee:
Prof. Dr. Saturnino M. Borras Jr.
Dr. Mindi Schneider

The Hague, The Netherlands
November, 2017
Disclaimer

This document represents part of the author’s study programme while at the Institute of Social Science. The views stated therein are those of the author and not necessarily those of the Institute.

Inquiries:

Postal address:
Institute of Social Studies
P. O. Box 29776
2502 LT The Hague
The Netherlands

Location:
Kortenaerkade 12
2518 AX The Hague
The Netherlands

Telephone: +31 70 426 0460
Fax: +31 70 426 0799
Contents

List of Figures.............................................................................................................................................. iv
List of Maps .................................................................................................................................................. iv
List of Appendices ....................................................................................................................................... iv
List of Acronyms ......................................................................................................................................... v
Abstract ..................................................................................................................................................... vi
Chapter 1. Introduction................................................................................................................................... 1
  1.1 Situating Matopiba: Fidgety capital, explosive collisions, and the announcement of the latest “last agricultural frontier” .............................................................................................................. 1
  1.2 Research question and subquestions ...................................................................................................... 5
  1.3 Analytical framework and research methodology .................................................................................... 6
  1.4 Chapter Overview ................................................................................................................................. 10
Chapter 2. Early incursions in Matopiba: overview of main policies and processes ............................... 11
Chapter 3. Socioenvironmental havoc, contestations and the challenges of scaling up reactions .......... 16
Chapter 4. Shifts across space ........................................................................................................................ 24
Chapter 5. Shifts across political-administrative regimes ............................................................................... 30
Chapter 6. Shifts across land tenure regimes .................................................................................................. 35
Chapter 7. Conclusion .................................................................................................................................... 38
References .................................................................................................................................................... 40
Appendix A .................................................................................................................................................... 49
Appendix B .................................................................................................................................................... 50
List of Figures

Graph 1: Planted area of soy in the four Matopiba states (1990-2016)
Graph 2: Production of soy in six municipalities of Matopiba (1990-2016)
Graph 3: Planted area of soy in six municipalities of Matopiba (1990-2016)

List of Maps

Map 1: Biomes of Brazil (IBGE)
Map 2: Delimitation of Matopiba (EMBRAPA)
Map 4: Land occupations in Brazil, 1988-2015 (DATALUTA)
Map 5: Soy production in Brazil in tons (1995 and 2015)

List of Appendices

Appendix A: List of informants
Appendix B: Tables of planted area of soy by state and municipality
# List of Acronyms

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BNDES</td>
<td>National Bank of Economic and Social Development</td>
</tr>
<tr>
<td>CPT</td>
<td>Comissão Pastoral da Terra (Pastoral Land Commission)</td>
</tr>
<tr>
<td>EMBRAPA</td>
<td>Brazilian Agricultural Research Corporation</td>
</tr>
<tr>
<td>FAPCEN</td>
<td>Foundation for Support of Research in the North Corridor of Exportation</td>
</tr>
<tr>
<td>FI-FGTS</td>
<td>Investment Fund of the Workers’ Indemnity Fund</td>
</tr>
<tr>
<td>GITE</td>
<td>Strategic Territorial Intelligence Group of EMBRAPA</td>
</tr>
<tr>
<td>IBGE</td>
<td>Brazilian Institute of Geography and Statistics</td>
</tr>
<tr>
<td>ILUC</td>
<td>Indirect Land Use Change</td>
</tr>
<tr>
<td>INCRA</td>
<td>National Institute of Colonization and Land Reform</td>
</tr>
<tr>
<td>JICA</td>
<td>Japan International Cooperation Agency</td>
</tr>
<tr>
<td>MST</td>
<td>Landless Rural Workers’ Movement</td>
</tr>
<tr>
<td>NGO</td>
<td>Non-governmental organization</td>
</tr>
<tr>
<td>PAC</td>
<td>Program of Acceleration of Growth</td>
</tr>
<tr>
<td>PRODECER</td>
<td>Japanese-Brazilian Program for the Development of Cerrados</td>
</tr>
<tr>
<td>PROSAVANA</td>
<td>Triangular Cooperation Program for the Agricultural Development of the Tropical Savana in Mozambique</td>
</tr>
<tr>
<td>PT</td>
<td>Workers’ Party</td>
</tr>
<tr>
<td>SMDH</td>
<td>Sociedade Maranhense de Direitos Humanos (Human Rights Society of Maranhão)</td>
</tr>
<tr>
<td>UFMA</td>
<td>Federal University of Maranhão</td>
</tr>
</tbody>
</table>
Abstract

This paper examines how agribusiness has adapted to political contestations in the formation of the soy frontier in Matopiba in Brazil, with emphasis on the mediating role of the state. Matopiba refers to an area of 73 million hectares – covering four states in Northeast Brazil – that was promoted as the “last agricultural frontier in the world” in 2015 by the Brazilian government. I analyze how the recent acceleration of agribusiness expansion in this region and its promotion by the state have occurred partly in response to contestations to the advancement of industrial agriculture in other regions in Brazil and outside Brazil. Spatial shifts have also occurred within Matopiba, as companies have moved around according to tensions and obstacles encountered. Moreover, agribusiness strategies in Matopiba have also changed across political regimes and across land tenure regimes. Under the Workers’ Party (PT) governments, more sophisticated forms of state promotion of agribusiness and of gathering consent for land-based capital accumulation emerged. The forms of appropriation of public lands by agribusiness have also become more sophisticated in recent years. These new forms of transfer of land control and of state legitimation of agribusiness expansion, combined with the otherization of peoples and nature of Matopiba, have posed challenges to the scaling up of contestations to the environmental damages and dispossession engendered by the expansion of soy in the region. These shifts also point to the importance of recentering politics in analyses of frontier-making and foregoing some of the assumptions made in recent years on directions of the land rush.

Relevance to Development Studies

The continued territorial expansion of industrial agriculture around the world has often led to the expulsion of peasants from the land and to the obliteration of biomes. Recent attempts to understand directions of land rushes have sometimes relied on assumptions of particular trajectories and strategies of agribusiness. In this paper, I attempt to show the influence of political contestations (or lack thereof) and of the mediation of the state in shaping particular directions of agribusiness capital. A better understanding of the adaptability of capital is relevant for rural collectivities to be able to contest the unbridled expansion of agribusiness and to choose their own paths of development. The processes of gradual expulsion of peoples and of environmental degradation occurring in Matopiba region in Brazil in these last decades were largely rendered invisible in national and international debates on land control and land use. I attempt to understand reasons for this obscurement, which I hope can contribute in preventing invisibilization of similar processes around the world.

Keywords

Matopiba; land control; shifts of capital; state-building processes.
Chapter 1. Introduction

1.1 Situating Matopiba: Fidgety capital, explosive collisions, and the announcement of the latest “last agricultural frontier”

In the early 1970s, the financial crisis and a series of trade disputes between countries helped push the production of typically temperate crops to new territories (Friedmann 1992:376–9). In particular, soya and maize, which had been previously almost monopolized by the United States and which were quickly becoming some of the most important and versatile commodities in the global food system, took over large swathes of Latin America. New international linkages were formed, as military dictatorship governments in Brazil and Argentina embraced nationalist projects of agricultural expansion and formed partnerships with interested buyers, such as Japan. New Green Revolution technologies also allowed the diffusion of crops to what before seemed like impossible ecological substrates (Oliveira 2016).

Around the 2007-8 financial crisis, signals emerged of a new global scramble for land and for new sites of production of commodity crops. The announcement of huge international land deals and agricultural cooperation projects propelled organizations and researchers to try to monitor and understand what was happening (GRAIN 2008; White et al. 2012). The initial perception of the African continent as a main target of many of these deals played into different narratives of the current directions of capitalism. First, the announced scramble for African land raised questions on the re-intensification of imperialism towards peripheral countries, with the appearance of potentially new imperialist players in the game, such as the BRICS – Brazil, Russia, India, China and South Africa (Bond 2008). Second, a story emerged on capitalist agriculture finally reaching the last continent, where, in general, mass dispossession and formation of immense land estates had not occurred as much as in other continents (Moyo 2011). Coalitions and international projects to advance industrial agriculture in Africa – such as the Alliance for a Green Revolution in Africa, pushed by the Gates Foundation – also framed it as the last continent to receive Green Revolution technologies.

In the following years, however, a much more nuanced picture emerged. Many of the announced deals in Africa did not come to fruition, often due to disparities between the expected conditions for projected deals and the actual local scenarios (Cotula 2013:46). It also became clearer that territorial expansion of industrial agriculture was occurring heavily in other parts of the world as well, including Southeast Asia (Borras, Franco 2011), Eastern Europe (Visser et al. 2012) and Latin America (Borras et al. 2012). Looking at these other cases, it was difficult to deny that many processes of transformation had in reality been triggered before the 2008 crisis (Borras et al. 2012) and that some of the alarming measurements of land deals following the crisis had lacked methodological rigor (Edelman 2013). Finally, while foreign land acquisitions were indeed an important phenomenon after the crisis, more researchers have also called attention to the importance of national land deals and to the active participation of domestic states in deals with foreign companies and governments (Wolford et al 2013).

In 2015, the Brazilian Government seemingly subverted some of the global narratives focused on Africa by claiming that Brazil had not only gone through previous waves of agricultural expansion, but that it still held the “the last agricultural frontier in expansion in the
world.” (Portal Planalto 2015a). The government was referring to a region in the Northeast of Brazil that had come to be known as Matopiba, corresponding to the Cerrado biome in four states (Maranhão, Tocantins, Piauí and Bahia). Until then, Matopiba, which totals 73 million hectares of land in the official government delimitation, had been largely outside of international and even national debates on land use and land control change, despite having already undergone massive transformations. In 2015, soy plantations had already covered three million hectares in the four states (PAM/IBGE 2017).

Certainly, it is important to understand the general push for converting more land around the globe to industrial agriculture and to other forms of resource extraction. In the last years, there have been different proposals on how to name and conceptualize these territorial changes, such as: “global land grabs” (White et al. 2012), “commodity frontiers” (Moore 2000) and “frontier spaces” (Rasmussen, Lund 2018). Various conjunctural explanations behind the most recent wave of expansion have also emerged, often agreeing on immediate triggers but with different points of emphasis. These explanations have frequently included the changing habits of consumption in East Asia – especially the meatification of diets –, the new forms of behavior of financial capital post-crisis and growing concentration of power within the agri-food sector (White et al. 2012:627-631). Theories also compete to address the broader questions on the role of appropriation of resources within capitalism.

While these are all vital questions, it is equally important to *de-naturalize* the concrete directions of expansion. Claims by the Brazilian government of Matopiba being the last frontier in the world had a clear intention of propaganda and legitimization. However, occasionally even critical narratives on the closure of frontiers and processes of transformation, such as some portrayals that emerged around the recent wave of land deals, can also inadvertently play into the naturalization and de-politicization of movements of capital.

---

1 Translated from Portuguese.
First, it is important to recognize that what have been called “frontiers” are not new frontiers for capital per se, but rather areas that frequently have had previous waves of commodification (Tsing 2003) and of dispossession (Edelman, León 2013). These places have often suffered multiple previous economic “booms” and “busts” and/or are now undergoing the appropriation and valuation of labor and resources in novel and more intensive forms. This applies to Matopiba as well, which has undergone cycles of livestock production and has had both waves of dispossession of indigenous and traditional peoples and of repossession of peasants through migration and through state settlements. While it is essential to recognize that the current spread of industrial agriculture provokes much faster and more intense transformation of landscapes (Oliveira, Hecht 2016), rescuing history also keeps us alert to the multiple potentialites of politics. This is a second key point: specific spaces, sectors and strategies become attractive or repulsive to capital, at the conjuncture of multiple processes, at multiple levels. These processes can involve both dynamic collusions between economic and political actors tied to agribusiness and explosive collisions with multiple forms of resistance.

For this reason, we should also ask: why certain places, during certain times? Why certain strategies and not others (for instance, why entry of foreign capital directly into land acquisition rather than capturing value in other nodes of the agricultural value chain)? In my research around the soy frontier in Matopiba, I have been forced to contend not only with the accelerating growth of agribusiness, but also with the accelerating dynamism and adaptations of agribusiness strategies across space and time, across political and legal regimes and in relation with multiple contestations.

Globalization and financialization have certainly changed the playing field concerning the dynamism of agribusiness. David Harvey (2003) called attention to the growing mobility of capital since the 1970s and to the possibility of spatio-temporal fixes of overaccumulated capital. Under the term “spatio-temporal fixes”, he was describing the dynamic capacity to re-route capital that could not be profitably used to: new markets and resource and labor possibilities (spatial fixes), to long-term projects (temporal fixes) or to a combination of the two (Harvey 2003:109). Yet it is not only overaccumulated capital that can be relocated: poorly invested capital can also be shifted globally. This is increasingly relevant because the locally territorialized forms of industrial agriculture are being connected to global capital in new ways. Authors on the expansion of the agricultural frontier in Matopiba have pointed to the importance of multi-scale linkages between “international financial capital, the national bourgeoisie, and the dominant classes in the region” (Spadotto et al. 2017).

The flexibility of forms of value capture, the high-speed mobility and the level of coordination of international capital – particularly of financial capital – are without precedent. This means that, once obstacles are encountered in one place, sector or strategy, leaps can be taken relatively easily to more profitable or less cumbersome possibilities in other parts of the globe. It is true, also, that these leaps are taken not only in relation to outside contentions, but also to disputes among fractions of capital. One cannot fetichize capital as some sort of single agent with a single rationale that reacts evenly and unifiedly to frictions. This caveat notwithstanding, the growing concentration of economic and political power by multinationals in agri-food sectors and the domination by a few financial actors exponentially increases the possibility for coordination and capacity for adaptation, as will be seen in the case of Matopiba.

The increasing multi-scale linkages and capacity for dynamic adaptation cuts both ways, however – although not with comparable capacities. Given the formation of international
organizations and networks around social and environmental issues, localized contestations against the unbridled expansion of capitalism can also quickly scale up. This means that places that are historically peripheral can suddenly become the targets of large international campaigns against a development project, for instance. A few organizations can directly pressure the most powerful economic actors in a commodity chain, such as traders and retailers, not to acquire products from a certain place.

The encounter of highly mobile, but also highly coordinated multi-scale capital with multi-scale contestations increases the possibility of spark-producing collisions and of unexpected, indirect effects. Recent literature has called attention to how certain crops with flexible and multiple uses play into complex value webs in the agri-food system, with the possibility of dynamic rearrangements (Borras et al. 2016). Soya, which will be the commodity of focus in this paper, has been one of the “flex crops” par excellence and even the anticipation of its possible multiple and flexible uses has changed the behavior of agribusiness actors (Oliveira, Schneider 2016). In this flexible and interconnected context of the agri-food system, authors have also pointed to the multiple interlinkages and spill-over effects of projects and policies around land and the environment and their contestations (Hunsberger et al. 2015). One recent striking example has been that the requirements for sustainable sourcing in biofuels in the European Union allowed palm oil tied to land grabbing and deforestation in Indonesia to simply fill another European market gap. Once European rapeseed previously used for food products was increasingly converted to biodiesel, palm oil from Indonesia filled the gap for oil in food use (Borras et al. 2016:108). Similarly, as will be detailed in this paper, the focus given to the deforestation in the Amazon provoked by soy plantations and the ability of these reactions to scale up to national and international levels left the Cerrado relatively open to territorial expansion of agribusiness. Moreover, focus on deforestation by soy has left relative space for Amazonian forests to be cleared for other sectors, such as livestock (Domingues, Bermann 2012). In other words, contestations, regulations and other limiting conditions in certain places, sectors and time periods are in practice linked to the absences of these limiting conditions in other places, sectors and time periods. Many of these spillover effects due to interconnectedness are being currently formulated as “indirect land use change” or ILUC (Oliveira, Hecht 2016:270; Borras et al. 2016:110).

However, ILUC is not built only around shocks between capital and social movements and civil society organizations. Recent literature on land deals has increasingly recognized that capital does not simply override or bypass states to ensure land-based accumulation, but instead commingles with state-building processes (Wolford et al. 2013; Oliveira 2013). States, as responsible for balancing imperatives of capitalist accumulation and social legitimation (O’Connor 1973), are often the managers of the adaptations to contestations that ensure both profitability and social peace. Bringing the role of the state and the interplay of multi-scale dynamics back into the analysis allows us to grasp both the political contingencies around ILUC and the political coordination around the adaptive responses, which can be obscured through passive terms such as “indirect impacts”. This is key to understand the formation of the Matopiba frontier in Brazil, especially as the Brazilian state has not only created favorable institutional environments for agribusiness, but has had a proactive role in the identification and building of new territories for industrial agriculture.

Recently, contestations around the expansion of soy in Matopiba and its damaging effects against peasants and the Cerrado biome have reached the international scale. In the
second semester of 2017 alone, there have been multiple publications on the region by Brazilian authors presented in international conferences or in English (Spadotto et al. 2017; Hershaw and Sauer 2017; Pitta and Vega 2017), two international fact-finding missions to the area (FIAN 2017; Uchoas 2017) and a mobilization of international environmental NGOs to get traders and retailers to commit to stop purchasing commodities from deforested areas of the Cerrado (Manifesto 2017). In part, this has been a reaction to the aforementioned announcement by the Brazilian Government in 2015. During the term of Kátia Abreu as Minister of Agriculture, based on studies by the State Agricultural Research Corporation (Embrapa) of 2014, the government officially embraced and promoted Matopiba as a new agricultural frontier, planning to create different policies around it. Evidence of renewed interest of international investment in the region has also increased in the last years, both through potential plans around cooperation with Japan (Komazawa, interview 18 September 2017) and through the involvement of foreign investment, including foreign pension funds involved in land speculation in South Piauí (Mendonça, Pitta 2015).

However, the massive socioecological transformations in the four states did not start recently, but have, rather, been going on for several decades. The state of Bahia, especially, is already of more consolidated hub of agribusiness, following expansion in the 1980s. Meanwhile, the expansion of soy into Maranhão, Piauí and Tocantins gained speed in the mid-1990s and the early 2000s (see Graph 1). Local social movements and local researchers, in particular, have already been following the socioenvironmental impacts of expansion of industrial agriculture closely for many years². As we shall see in more detail, the previous challenges to scaling up contestations to the national and international level, compared to other regions, have played a strong role in the processes in Matopiba and in the embracement of the frontier by the state in 2015. Moreover, within Matopiba as well, different limiting conditions and changing scenarios have also emerged over time, and shaped the composition of sectors, strategies and alliances of agribusiness capital. My research is formulated around the attempt to understand this dynamism, with attention to the adaptive capacity of agribusiness expansion across space and time, and to the role of the state in mediating these adaptations to political contestations.

1.2 Research question and subquestions

In this sense, my main research question is:

*With reference to the Matopiba frontier, how has agribusiness capital, with the mediation of the state, adapted to multi-scale contestations around socioenvironmental issues in shifts across geographic space, political-administrative regimes and land tenure regimes?*

My main sub-questions are:
1) Which contestations have emerged in response to the expansion of the soy frontier in Matopiba? How have these contestations scaled-up compared to other regions of potential expansion?
2) What has been the role of the state, especially of the Federal Government, in the promotion of the expansion of industrial agriculture in Matopiba?
3) How have forms of appropriation of land changed across different contexts of land tenure?

² Some examples of earlier research are: Conceição 1995; Carneiro 2008; Paula Andrade 2012; Alves 2009; Alves 2015.
laws and policies, especially in comparison of the military dictatorship (1964-1984) and the constitutional democratic period (1988-2015), and how has this related to forms of contestation?

4) How have forms of deploying coercion and gathering consent related to the expansion of agribusiness in Matopiba changed across political regimes, especially in comparison of the military regime and the Workers’ Party governments (2003-2015)? How have these forms related to contestations around Matopiba?

1.3 Analytical framework and research methodology

My research inserts itself in the long-standing Marxist discussion around the development of capitalism in the countryside and the fate of the peasantry, often shorthanded as the Agrarian Question (Akram-Lodhi, Kay 2009). As alluded in the introduction, I am wary, however, of teleological narratives, that take the multiple directions of capitalist agrarian development in particular histories and geographies as mere temporary “obstacles” to a pressupposed endpoint. I take as reference the imperative of accumulation and drives to commodification that Karl Marx first enunciated as characteristics of capitalist development (Bernstein 2010:25-27), which ultimately translates into “an impossibility of remaining before a frontier” (Clastres 2011:86). Nevertheless, I am also mindful of the heterogeneity of capitalist formations (Quijano 2005) and the role of particular relations in each territory in the formation of possible trajectories (Frederico 2008:28-29). As written by Alonso-Fradejas (2015:512), “trajectories of agrarian change are not a story foretold, but the product of multiple and dynamic politics”. Thus, following other recent literature in critical agrarian studies, I give more attention to the role of politics and particularly to state-society relations and state-making processes (Wolford et al. 2013, Hall et al. 2015, Alonso-Fradejas 2015, Oliveira 2013), understanding that the state plays a central role in balancing accumulation and legitimacy imperatives (O’Connor 1973) in the expansion of industrial agriculture.

Furthermore, as anticipated in the previous section, it is important to situate this particular process in the context of major changes in conditions of expansion of capital under financialization and globalization in the last decades (Harvey 2003). Particularly in the last years, economic power has become further concentrated within the agri-food sector (Friedmann 1992: Weis 2007) and financial capital has further linked with agricultural and land investments (Fairbairn 2014). What is shorthanded in this paper as agribusiness capital refers to multiple economic actors and relations, including: agricultural input companies, producers, traders, processors, retailers, institutional investors, as well as associated areas, including infrastructure and logistics, real estate and research and development. Although oligopoly in many of these global sectors have limited the area of maneuver for other actors, there is also much variability and dynamic changes in the context of shifting agri-food geopolitics – such as the growing linkages between East Asia and Latin America (Oliveira 2016) – and the formation of specific associations in each country. Although I will focus in this paper on the territorialization of soy producers in Matopiba, the process is understood in reference to other sectors and actors of agribusiness capital.

3 Translated from Portuguese.
To understand the particular historical conditions that allowed agribusiness to take over so many territories in Matopiba despite its destruction of previous lifeworlds, I draw from Tania Li’s “analytic of conjuncture” (Li 2014). Li emphasizes the importance of multiple elements, that “come to life as they collide and align in particular constellations. A conjuncture is dynamic but it is not random. There is path dependence” (Li 2014:16). Comparison across different conjunctures allows for the identification of relevant elements in each conjuncture. Due to limits in time and scope of this research, my analysis attempts to tease out some preliminary conjunctural elements and is not based on the same type of deep ethnographic work that Li conducted across several years for her book (Li 2014). Hence, I have chosen to engage primarily with capacities of contestations to scale up and with the positioning of higher spheres of Brazilian government and have addressed reactions on the ground and the roles played by local and regional governments in less detail.

Still, my methodology has attempted to understand the shifts of agribusiness in response to contestations through five main cross-historical and cross-geographical comparisons:

a) Comparison of subregionalizations within Matopiba. I have conducted fieldwork and research with focus on two states and particularly on two subregions of Matopiba: the North-East of Maranhão (also known as Chapadinha and Baixo Parnaíba) and the South-West of Piauí. I chose these two regions for two reasons. First, they are both more recent soy frontiers within Matopiba, in which soy production expanded mainly in the 2000s, as can be seen in Map 1 (below). Second, preliminary literature review also indicated relevant differences between them, such as differences in the profile of soy producers: while many larger companies have installed themselves in South Piauí, production of soy in East of Maranhão has been mostly dominated by “gaúchos”, larger farmers of origin in south Brazil (Paula Andrade 2012; Pitta, Mendonça 2015). The occurrence of different processes across a similar time period in each region thus provided fertile ground for comparison.
b) **Comparison of Matopiba in relation to other potential areas of expansion for soy.** The possibility of expansion in Matopiba/Cerrado is contrasted especially to the Amazon biome, where opposition to clearing areas for soy has scaled up earlier. I also take into consideration the relations between Matopiba and the Corridor of Nacala in northern Mozambique.

c) **Comparison of conditions for the expansion of agribusiness in Matopiba and the Brazilian agricultural frontier as a whole across political regimes,** especially contrasting the military dictatorship of the 1970s that launched the first big programs of expansion of industrial agriculture in the Cerrado and the policies under the Workers’ Party Government of 2003-2015.

d) **Comparison of forms of land control change in Matopiba across legal tenure regimes,** also taking as reference comparison between the wave of illegal appropriation of public lands in the 1970s and 1980s and the forms of appropriation in the 2000s.

e) **The formation of Matopiba across different commodities.** While I will largely focus on the expansion of soy, which has been the main expanding crop in Matopiba, I will attempt to take into consideration its historical relation in Matopiba to other key agricultural sectors, especially
livestock, eucalyptus and sugarcane.

In addition to the literature review pertinent to the analytical framework, I have conducted a review of references on the expansion of agriculture in these specific regions and in Brazil as a whole. I have also reviewed a series of news reports, government documents and information on companies related to the expansion of agribusiness in Maranhão and Piauí. In August and September of 2017, I conducted fieldwork in Maranhão (August 3-11 2017) and in Piauí (September 3-14 2017), with the use of semi-structured interviews and participatory observation.


In Maranhão, I interviewed key state officials, researchers and members of social movements in the state capital (São Luís) and visited two peasant communities (Araçás and Carrancas) in Buriti affected by soy expansion. I went to Piauí as part of the Fact-Finding Mission on Land Grabbing in Matopiba organized by FIAN, Rede Social de Justiça e Direitos Humanos and Comissão Pastoral da Terra (CPT). The mission visited five affected communities (Melancias, Baixão Fechado, Sete Lagoas, Brejo das Meninas and Santa Fé) by expansion of soy plantations in the municipalities of Santa Filomena and Gilbués and participated in public hearings in Bom Jesus and in Teresina (state capital). In addition to information provided by affected peasants, I also interviewed members of social movements and of rural labor unions involved in the mission. Finally, I interviewed officers of the Ministry of Agriculture, of Embrapa Cerrados and of JICA (Japan International Cooperation Agency) in Brasília in
August/September 2017 and I participated in a seminar of the Campaign in Defense of the Cerrado in Goiânia on 26-27 August 2017 to understand the articulation and discussions of social movements around the Cerrado. The list of interviewees, their roles and dates of interviews is presented as Appendix A.

1.4 Chapter Overview

The paper is structured into seven chapters, including this introduction and the conclusion. Chapter 2 provides an overview of the process of expansion of industrial agriculture in Matopiba (especially Maranhão and Piauí), especially through the lens of state policies that promoted this expansion. Chapter 3 provides an overview of socioenvironmental conflicts provoked by expansion of soy in the areas of focus (East Maranhão and South Piauí) and the forms of contestation of the development of agribusiness that have emerged in these regions. This chapter teases some elements that inhibited previous connections and scaling up of contestations to the national and international level, which are further analyzed in the subsequent three chapters. Chapters 4, 5 and 6 analyze key adaptations of agribusiness capital territorialization processes and state policy across space and time that simultaneously responded to and prevented or shaped contestations of the Matopiba frontier. Chapter 4 focuses on shifts across space of agribusiness actors and sectors to eschew mounting tensions and limits in a particular territory, looking at leaps from other potential areas of expansion (the Brazilian Amazon and the north of Mozambique) into Matopiba and leaps within Matopiba. Chapter 5 contrasts changes in the deployment of coercion and consent-building strategies by the state in the expansion of agribusiness across political regimes, with focus on the specific strategies of the Workers’ Party governments. Closely related, Chapter 6 also considers shifts of strategies for the appropriation of land in the transition to a regularized land market, in contrast to the frenzy of illegal appropriation in the 1970s and 1980s.

Finally, concluding remarks center on understanding the specific conjuncture that produced Matopiba as a conciliatory solution in light of the rupture of this conjuncture post-impeachment. The conclusion also takes into consideration the implications of the shifts seen in the formation of Matopiba to other studies on land use and land control change and to possibilities of contestations.

Citations that have been translated from Portuguese will be henceforth marked in the text with an asterisk.
Chapter 2. Early incursions in Matopiba: overview of main policies and processes

“Of the 204 million hectares of Brazilian cerrados, 11.858.866 ha are in Piauí and 9.800.000 in Maranhão, states that form the Mid-North or Occidental Northeast of Brazil (...) Both, with an area of cerrados potentially farmable, estimated by technicians and producers of the region in 6 million hectares, constitute an important agricultural frontier in development for the production of grains, especially soy, a crop that is already adapted and in phase of further expansion*”.

Embrapa Meio-Norte document from 1999 (Frota and Campelo 1999)

The declaration of the area of 337 municipalities, corresponding to the Cerrado biome in the four states of Maranhão, Tocantins, Piauí and Bahia, as a unified frontier, under the name of Matopiba, was a political decision. This decision was technically supported by the studies of Embrapa Strategic Territorial Intelligence Group in 2014 and was consolidated in a Decree by the Ministry of Agriculture in 2015. In fact, Matopiba is formed by diverse territories, with different histories, and even as an agribusiness frontier it has been conceptualized and amalgamated in different ways. The consideration of it as a continuous area of Cerrado is also a simplification, as it shares many transition zones to other biomes and a plurality of ecological subdivisions (Pitta, Vega 2017). Nevertheless, these states also share many features in common that are highly relevant to the frontier formation, including an abundance of unclaimed public lands and a cheaper land market (Pitta, Mendonça 2015), lower urbanization rates and higher poverty rates compared to the average of Brazil (IBGE 2010) and a peripheral position to the economic and political centers of the country.

A significant part of Brazil’s interior, especially in the Center-South, has undergone the conversion of land to industrial agriculture in previous decades, with soy having consolidated itself as Brazil’s main production and exportation crop (Oliveira 2016). While the central and southern states still dominate the production of soy, Matopiba has increased its share of Brazil soy production (in tons) from 5.6% in 2001/2 (CONAB 2003:22) to almost 11% in the 2016/17 season (CONAB 2017:116).

The economic development of Brazil under colonization and as an independent monarchy was largely built around the coastline, with the interior regions often serving as a hinterland to supply livestock and other materials to the plantations and urban formations on the coasts. Nonetheless, the interior landscapes and populational formations had been heavily transformed over the centuries by cattle-raising, by frontier disputes (Oliveira 2016:351) and by regionalized economic booms around extractive commodities. It was largely in the 20th century, however, that a national project of intentional occupation of these hinterlands was formed, with its strongest expression under the military dictatorship of 1964-1985. Guilherme Delgado (2010) explains that the military regime embraced a project of conservative agricultural modernization, in which land was further concentrated instead of redistributed and industrial agriculture,

---

4 Previous names given by researchers and companies have been Bmapito, Mapitoba, Mapito (excluding Bahia) and variations of proposals as North, Mid-North and Center-North Corridor.
5 Mato Grosso state alone concentrated 26.7% of the 114.075.300 tons of soy produced in total in Brazil and 27.5% of the 33.909.400 hectares occupied by soy in Brazil in the crop season of 2016/2017 (CONAB 2017:116).
largely geared towards exportation, was fostered through new schemes of credit and special programs. One of the main features of the government policy was the active encouragement of farmers from the South of Brazil (largely descendants of European migrants, nicknamed *gaúchos*) to take over lands in the center and north of Brazil, especially in the Cerrado biome, supplanting the traditional occupants of these regions (Alves 2005). In this sense, the state institute responsible for land distribution was created in 1970 with the name of National Institute of Colonization and Land Reform (INCRA). The new State Agricultural Research Corporation, Embrapa, created in 1973, also took up a central role in the diffusion of industrial agriculture. Soy gained an increasingly important role in Brazil’s agriculture after the selection of new seed varieties suitable for tropical climates, largely developed through the new divisions of Embrapa Soja and Embrapa Cerrados (Schlesinger 2006:17). The military dictatorship promoted large development programs that sponsored violent incursions of new farmers and ranchers into the Cerrado and the Amazon (Miranda 2011).

For the promotion of the agricultural frontier in the Cerrado, two key programs that started in the 1970s were Polocentro (Program of Development of the Center-West Region) and Prodecer (Program of Japanese-Brazilian Cooperation for the Agricultural Development of the Cerrado). (Inocêncio, Calaça 2010). In the context of a soy moratorium by the United States in 1973 – until then the biggest producer by far -, purchasing countries became more interested in developing the cultivation in South America, and Japan in particular pursued direct cooperation with Brazil, often through its cooperation agency, JICA (Schlesinger 2006). Prodecer was developed in three phases that spanned together more than twenty years: Prodecer I, commencing in 1980, in Minas Gerais; Prodecer II, from 1987 onward, in Goiás, Mato Grosso do Sul and Bahia; and Prodecer III, that ranged from 1995 to 2001 in Maranhão and Tocantins. Thus, the second and third phases of Prodecer reached three states of Matopiba and propelled the soy frontiers there in the 1980s and 1990s. In 1998, JICA also published a multi-volume Master Plan for the Integrated Development of Agriculture and Livestock of the State of Tocantins, based on a partnership between the state and the cooperation agency. This Master Plan was not used to base programs of JICA itself in the Northeast, but was delivered to the Tocantins government to support their agricultural policies (Komazawa, interview 18 September 2017).

Incursions of intensive agriculture into Matopiba were also connected, however, to the programs of the military dictatorship directed to the Amazon. These included Great Project Carajás, officially launched in 1980, which was based around the iron mining project led by Companhia Vale do Rio Doce – at the time a state mining company - in the state of Pará and around the construction of Railway Carajás that led to a port in São Luís (capital of Maranhão). The government offered several economic and fiscal incentives to associated enterprises in mineral processing, infrastructure, agriculture and other areas in Goiás, Pará and Maranhão through Decree 1813/1980. This helped propel a charcoal production boom and first plantations of eucalyptus in the East of Maranhão in the 1980s, which were tied to iron processing companies funded by Great Project Carajás (Paula Andrade 1995a). A large company called Grupo João Santos also arrived in Buriti to plant sugarcane in the same decade (Paula Andrade 1995b).

Through different policies, the Brazilian state helped encourage specifically the expansion of soybean into the states of Maranhão and Piauí. In 1991, Companhia Vale do Rio Doce proposed the North Corridor of Exportation Program, pointing to the advantages of using
the multimodal transportation infrastructure to export soy from Maranhão, Piauí and Tocantins (Frota and Campelo 1999:4; Carneiro 2008:86). While Bahia was the first Matopiba state in which soy plantations expanded and continues to have a larger production compared to the three other states, the south of Maranhão also had a quick expansion in the 1990s and has developed an important agribusiness hub around the city of Balsas (Souza Filho 1995, Carneiro 2008). The evolution of planted area in the four states can be compared in the graph below:

![Graph 1: Expansion of planted area of soy in the four Matopiba states (Source of data: PAM/IBGE; my organization in graph form). Two scales: four states (left); total in Brazil (right).](image)

In connection with the plans for a larger corridor of exportation and the settlement of families through Prodecer, the formation in 1992 of FAPCEN (Foundation for Support of Research in the North Corridor of Exportation), an association of producers of Maranhão, was also central to promote expansion of soy in the state. FAPCEN and Embrapa formed partnerships to develop new soy technologies for the state (Frota and Campelo 1999:3; Miranda 2011:132-3), while state banks, including Banco do Brasil and National Bank of Economic and Social Development (BNDES), financed further production (Souza Filho 1995:246; Miranda 2011:96).

In the late 1990s and early 2000s, southern farmers who had already installed themselves previously in the East of Maranhão started planting soy (Gaspar 2013). Embrapa had an active role in prospecting and promoting the expansion of soy in this region (Freitas, interview 8 August 2017), which is not contiguous to the other areas of soy production in Matopiba. However, the soy produced in the south of Maranhão still currently concentrates 60-80% of production of the state (Honaiser, interview 9 August 2017).

In the state of Piauí, production of soy also took off in the 2000s, leaping from 91,014
tons of soy in the state in 2002 to 308,225 tons in 2003 (PAM/IBGE 2017). Amidst this boom, larger companies such as SLC, Pinesso, Insolo, Radar and Dahma have acquired property there. An important impulsion to the expansion of soy in the state was the installation of facilities of the trading company Bunge, which established its first silo in the city of Uruçuí in 2003 (Alves 2012).

As can be seen in the examples of the previous establishment of eucalyptus and sugarcane in the East of Maranhão, the arrival of southern farmers and the appropriation of lands – usually the illegal appropriation of public unclaimed lands, called *grilagem* – often preceded the expansion of soy. In South Maranhão, gaúchos started arriving to plant rice in the 1970s, although there is also evidence that conversion to soy was already in their plans (Souza Filho 1995:245). In South Piauí, land was also appropriated initially in the 1970s onward as a reserve of value, in a context of government incentives to modernization of the northeast (Alves 2009). Indeed, much of the *grilagem* in Maranhão and Piauí occurred in the 1970s and 1980s before the soy boom, not only due to the encouragement of ‘colonization’ by the Federal Government, but also with the participation of state governments and local elites in a frenzy of land appropriation (Alves 2009; Miranda 2011:25; Shiraishi 1995). State governments have also often given fiscal incentives to the entry of agribusiness companies. Bunge received an exemption from paying taxes on circulation of merchandise to the state of Piauí for a period of twelve years in 2003. Furthermore, it is important to note that land itself has also gained value as a commodity in Matopiba and land speculation has increased in the last years, with the installation even of specialized land companies (Pitta, Vega 2017).

As Graph 1 shows, expansion of areas of soy in Matopiba gained impulse under the commodity boom of the 2000s, heavily floated by the expansion of China. Guilherme Delgado (2010) explains that, in the late 1990s, Brazilian government reembraced the strategy of basing growth on exportation of grains of agribusiness, reediting elements from the conservative modernization programs of the military dictatorship. This macroeconomic strategy continued to be adopted by the Workers’ Party governments from 2003 on, which also reincreased investments in infrastructure and continuously expanded the amount of credit available for agribusiness each year. The influence of the Brazilian agribusiness sector on the policy of the Federal Government became further entrenched through the control of the Ministry of Agriculture as well as its political representation in Congress (Sauer, Mészáros 2017:401-2).

As we will see in Chapter 4, in addition to the general promotion of policies favorable to agribusiness, the Workers’ Party government encouraged the Matopiba frontier actively, but often behind the shadows. A new proposal of regional policy only came to fruition in 2015, with the announcement of the intention to create a Plan of Agricultural Development, a Managing Committee and a Development Agency for Matopiba. This was largely led by Kátia Abreu as Minister of Agriculture, herself a large farmer from Tocantins.

In 2012, there had been hints of renewed interest in a regional policy in a proposal of law to create a Center-North Corridor in 2012 (PL 228/2012), encompassing Maranhão, Piauí and Tocantins in their totality and portions of Goiás, Pará and Mato Grosso (Lima et al. 2016:4). The Government of Maranhão and mining company Vale have supported an Agency of Sustainable Development of the Center-North Corridor (ADECON 2016). The proposal of Matopiba policies in the 2nd term of Dilma Rousseff occurred already in a period of instability that preceded the impeachment of Rousseff and many of my informants agreed that the announcement of Matopiba did not directly translate into concrete policies, but rather
publicized the frontier. According to the Secretary of Agriculture of Maranhão, who was a member of the Matopiba Committee, the committee did not have time to enact policies (Honaiser, interview 9 August 2017). The Plan of Agricultural Development that was being formulated within the Ministry of Agriculture was never reviewed or published (Mazzoleni, interview 15 August 2017). Still, the announcement by the government attracted the attention both of potential investors and of social movements and organizations critical to the unbridled expansion of agribusiness capital. In other words, more actors became aware of the process of territorial expansion of industrial agriculture in Northeast Brazil that had been going on for many years.
Chapter 3. Socioenvironmental havoc, contestations and the challenges of scaling up reactions

“When we became aware of Matopiba, it was not news for us in the region, because, in truth, the expansion of grains has been the intention for a long time, since the implantation of the first monocultures there. What we can observe is the escalation of this process... and this means a larger number of conflicts.”

Roseane Dias, Advisor of Sociedade Maranhense de Direitos Humanos, human rights organization in Maranhão (interview 8 August 2017)

The territorialization of industrial agriculture in Matopiba has largely occurred at the expense of other beings that previously occupied those lands. The uniform oilseed and grain monocultures have largely supplanted complex Cerrado ecosystems, that hold a high proportion of Brazil’s plant and animal biodiversity. The Cerrado trees have been nicknamed inverted forests, since many of them have profound roots that have a fundamental role in water cycling, feeding into the springs of many of Brazil’s key rivers (CPT 2017). Satellite images revealed that over 60% of agricultural expansion in Matopiba between 2000 and 2014 occurred over native vegetation, deforesting over 2 million hectares (Carneiro Filho and Costa 2016:9).
Before agribusiness expansion, however, these lands were not “pristine wilderness”, but, ecosystems largely co-managed and inhabited by traditional and peasant populations. All the communities I visited in Maranhão and Piauí had been established at least for several decades, with diverse histories of territorialization (such as migration from other regions or fixation of previous tenants and rural workers), usually without formalization of land titles. Both in the East of Maranhão and South of Piauí, the communities have traditionally relied on diverse sources of livelihoods, including: plantation of subsistence crops (rice, beans, cassava, pumpkin), raising animals, extracting fruit and other forest products, with very limited commercialization and occasional wage labor, including through seasonal migrant work in other states.

While there have been cases of direct expulsion and multiple reports of threats and violence committed against these communities in the past decades by new landowners and farmers – such as the violent conflict with Grupo João Santos in Buriti in the 1980s and 1990s (Paula Andrade 1995b) – many researchers and my own fieldwork have pointed to the predominance of a process of gradual strangulation of communities in Matopiba (Souza Filho 1995; Paula Andrade 2012; Pitta, Mendonça 2015; Pitta, Vega 2017). Due to the geographical formation of these areas, industrial agriculture has largely spread across the plateaus, which communities historically used for extraction of forest products, hunting and the free grazing of livestock. However, across the years, in addition to the difficulties caused by the loss of their commons, communities have struggled to remain on land due to growing ecological conflicts which seep into the lowlands. Some of the main ecological problems affecting livelihoods that were cited by communities in the interviews I conducted in the two states and in the public hearings in Piauí were: reduction of water availability, reduction or disappearance of native land animals and fish used as food sources, contamination of water and land by pesticides and loss of food crops due to new pests. The changes in water cycle across the years – visible in the dried-out lagoons around which the communities have historically formed (see picture below) – have affected the productive capacities of the Cerrado trees and of the subsistence crops. These effects, along with the lack of basic infrastructure in these regions (such as schools and electricity lines) and the lack of other opportunities for income generation, have pushed communities to sell their lands or to gradually move to municipal centers6. Although some young men are employed in the soy plantations – especially in strenuous seasonal work, such as removing the remaining roots of the deforested Cerrado trees – there are few opportunities for labor incorporation in the farms. The plantations are highly intensive and mechanized and that the larger farms often prefer to bring specialized workers from other states - it is thus an extreme case in which “their land is needed, but their labor is not” (Li 2011:286).

---

6 In many cases, peasants do not sell an actual formal title of land – which they do not – but are paid for their “possession” or to forego their expectation of land titling.
Peasants from Baixão Fechado (Santa Filomena, Piauí) show that riverbank used to reach the top of the roots in their childhoods. Photo: Catarina Antikainen.

Although these communities are gradually being pushed off their land, recent literature in critical agrarian studies warns us not to expect uniform patterns of political reactions of those potentially dispossessed by land deals (Hall et al 2015). Especially given the asymmetries of power with the new actors of agribusiness capital in the region, peasants might engage in different strategies of both contestation and adaptation to the new condition. Saulo Costa has pointed to the importance of everyday forms of resistance in the current attempts of peasants to maintain their traditional lifestyles, despite pressure for incorporation or expulsion in East Maranhão (Costa 2016). Strategies of resistance from below are also contextual: during the charcoal boom of the 1990s in that region, peasants sought employment or subcontracting opportunities with the main company (Marflora) in order to access extra income. However, with the worsening of contract conditions with the company and expectations of return of rainfalls a few years later, they reverted to their own farming (Paula Andrade 1995a).

In many of the speeches I heard given by affected peasants in public meetings in Piauí, they had to balance their frustration over the negative socioenvironmental effects they were suffering with difficulties in pointing fingers to the companies and gaúcho (southern) farmers, who are often their neighbors. Denouncements might not only lead to violent retaliations, but also to the loss of “good neighbor” relations that might have been formed over the years. Some large farmers fulfil roles of patronage, by doing occasional favors for the smaller peasants (such as giving small loans, rides or making donations for community festivities), often replacing the absence of the state that does not ensure basic rights. Larger companies operating in the area often promise and/or enact small improvements such as building schools or starting income generation projects with the communities through socioenvironmental departments, such as Suzano has been doing in the east of Maranhão. In Santa Filomena, soy company SLC has started supplying water to the community of Sete Lagoas that saw its water sources disappear over the years precisely due to industrial agriculture.

Still, in my fieldwork in Maranhão and Piauí, even peasants who had not had much previous contact with organized movements of resistance, in general formulated a strong acknowledgement of loss of their commons over the years and feelings of disenfranchisement
and abandonment by the state. Effective reactions to such a forceful and state-supported advancement of industrial agriculture largely depend on the possibility of regional interlinkages and the capacity to scale up and connect with organizations at a national and/or international level. In the past two years, after the announcement of the Matopiba frontier by the Federal Government, more movements and organizations have turned attention to the region. Nonetheless, given the scale of changes occurring previously to the federal policy, the extensive illegal appropriation of public lands and the fact that Brazil has some of the largest and most influential rural social movements in the world, it is also relevant to question why more contestations around the processes in Matopiba did not scale up previously.

There are many factors that influence the difficulty in scaling up contestations. Some factors are not specific to Matopiba, but have to do with loss of capacities of contestation in Brazil as a whole, some of which will be addressed in chapter 5. The factors pertaining specifically to Matopiba, in turn, can be better understood in relation to other places and time periods, which will be covered in more detail and through other lenses in the next three chapters. Moreover, as will be described in the final part of this chapter, there have also been important variations in capacities for resistance across Matopiba. Still, some preliminary generalizations about the previous obscurity of the violent processes in the region can be made.

First, networks of contestation are held back by geographical isolation of the processes in Matopiba. Each of the four states surpasses 250,000km² of extension: the state of Maranhão, alone, is the size of eight Netherlands. The affected areas are often hundreds of kilometers from the state capital, where many civil society organizations and state institutions are based.

Furthermore, there is a strong symbolic process of invisibilization and otherization of the biome of the Cerrado and of the traditional peoples living there. Isolete Wichinieski, one of the coordinators of the Campaign in Defense of the Cerrado, explains that there is a need to rescue the image of the Cerrado as a complex biome composed of multiple ecosystems and inhabited by traditional populations, as the identification of the Cerrado as the grainery of Brazil has largely been naturalized in the collective imagination (interview, 4 September 2017). Activists of Comissão Pastoral da Terra in Piauí that I interviewed also expressed that they need to make an effort to convince the general population, and even state officials, that there are communities living in the Cerrado region of Piauí and that they are not simply backward peoples. Naomi Klein (2016) explains that the rendering of certain places sacrificeable to the worst environmental effects of capitalist growth relies on the otherization of the people living there.

Finally, the history of the formation and territorialization of rural social movements in Brazil is pertinent to the capacity of multi-scale resistance in Matopiba. Brazil’s largest and most influential movement, the Landless Rural Workers’ Movement (MST), started in the South of Brazil and has expanded its territorial base upward (Fernandes 2010:164-169), and still has a weaker presence in the regions of Matopiba. MST was largely built around the demand for land reform and redistribution and one of its main political instruments has been the occupation of large land estates that do not fulfill their social function. A map compiling the occupations of land by rural social movements in Brazil from 1988 to 2015 (below) shows that the areas of Matopiba have largely been outside of this particular political process of land struggles.
This is due, also, to the particular rural formation of Matopiba, in which many rural communities have settled on the unclaimed public lands for decades, but have not received the formalization of their titles. Many of the struggles are, thus, not focused on repossession and redistribution – as in regions of Brazil in which more waves of dispossession and the consolidation of a private land market have already occurred – but to avoid dispossession and achieve recognition of their traditional forms of life. In recent years, more rural social movements in Brazil have formed around multiple collective identities based on their particular livelihood strategies and cultural, economic and ecological relations with nature. These multiple ethnic collectivities are often grouped under the umbrella-term “traditional populations” (Almeida 2008:25). However, the struggle for policies and legal forms for collective territories outside the model of land reform settlements is still under construction, as territorial rights are not as clearly defined in legislation for traditional populations that are not indigenous or quilombola (black rural communities). In addition to some movements based around ethnic identities in Matopiba – such as movements of quilombolas and quebradeiras de coco babaçu (women who extract a type of coconut) in East Maranhão – the northeast of Brazil has also had a stronger expression of church-based movements (Poletto 2010). Comissão Pastoral da Terra
(CPT)\(^7\) is one of the most expressive organizations that provides support to rural communities in the Matopiba states. Other rural social movements, human rights organizations, labor unions, academics and a few state officers also engage in constellations of contestations.

This type of synergy has occurred in East Maranhão in the past decades. Already in reference to the conflicts around the expansion of production of charcoal, eucalyptus plantations and expansion of sugarcane around the Great Carajás Project in Maranhão, several unions, church-based entities, researchers and other civil society organizations in the early 1990s formed networks of resistance and facilitated visits of state officials to the areas to verify the existence of violations (Paula Andrade 1995a). In the 2000s, with the expansion of conflicts around soy, once again a network of resistance was formed, which led to the constitution of a Forum in Defense of Life in the Baixo Parnaíba and propelled a mission in loco by the Plataforma Dhesca (Brazilian Platform of Economic, Social, Cultural and Environmental Human Rights) in 2005. One key actor in these processes of resistance has been the Sociedade Maranhense de Direitos Humanos (SMDH), a human rights organization that has given socio-legal support to communities in East Maranhão since the 1980s. In addition, researchers of the Federal University of Maranhão (UFMA) have truly played the role of scholar-activists in the last decades, conducting research with several affected communities. In 2012, the Group of Rural and Urban Studies of UFMA produced an extensive report on socioenvironmental conflicts in East Maranhão due to the expansion of eucalyptus and soy (Paula Andrade 2012).

The monitoring of violations by activists and researchers has often connected with legal contestations to ensure territorial rights of the communities and to halt violations by agribusiness actors, including lawsuits filed by prosecutors of the Public Ministry, the state institution in Brazil responsible for the protection of diffuse and collective rights. During his time as state prosecutor of Buriti (2005-2007), Emmanuel Soares filed several lawsuits to halt and condemn soy farmers for illegal deforestation, often including state environmental agencies as co-defendants for their expedition of irregular permits (interview, 9 August 2017). A judicial decision of 2016, in response to a lawsuit by the Federal Public Ministry, prohibited pulp and paper company Suzano from deforesting new areas in the Cerrado of Maranhão (MPF 2016). In the waves of resistance in the 1990s and 2000s, the networks have been able to scale up and engage with state representatives in Brasília and push for changes in the state government policy.

The possibilities for this type of network formation have been very different in South Piauí. The region of agribusiness expansion in Piauí is much further from the state capital, compared to East Maranhão, making the connection with organizations much more difficult. Moreover, the communities typically live in highly isolated places, between hills, and are more scattered compared to the East of Maranhão\(^8\). However, church agents have sometimes given support to the communities. For instance, an Irish priest called Father João has in the last decades given material support for the permanence of peasants and has helped people who were expelled from their lands to find new areas. Also, a few labor unions and pastoral agents of CPT have also engaged with these communities. In 2009, another church-based organization called Cáritas, along with other movements, organized a Caravan of the Cerrados of Piauí to denounce

\(^7\) Although it is based in the pastoral movement of the Catholic Church, CPT has an ecumenic orientation (Poletto 2010:148).

\(^8\) In 2010, Buriti/Maranhão had a population density of 18.33 inhabitants per square kilometer, while Santa Filomena/Piauí had only 1.15 inhabitant per square kilometer (IBGE 2010).
the expansion of agribusiness and the support given by the state government.

As we shall see in more detail in Chapter 6, pressure has also increased in Piauí to address the widespread *grilagem* of public lands in the state. In the 1990s, the state congress held a Comission of Parliamentary Inquiry into the illegal appropriation of public lands. In 2012, prosecutors of the Public Ministry of Piauí formed a special group to combat *grilagem* and a specialized Agrarian Court was formed to judge cases of land conflicts. The Agrarian Court has identified and blocked dozens of irregular estates in cases of *grilagem* of tens or even hundreds of thousands of hectares. Still, rural social movements with which I engaged in Piauí expressed the difficulty in engaging the state government and in escalating reactions to the social and environmental forms of violence of agribusiness.

Finally, the formation of alliances between contesting groups and the possibilities of escalation to other levels should not be seen as a straightforward process, as contestations to unbridled expansion of agribusiness also operate according to different political positions and framings of causes of and solutions to social and environmental issues. In particular, although socio-environmental processes are intrinsically linked in Matopiba, some streams of environmentalism are based on notions of preserving uninhabited areas of “wilderness” or bet on technological advancement as means for ecological efficiency (Martínez-Alier 2002), which can translate into the exclusion of traditional communities and support for further intensification of agribusiness. The Manifesto of the Cerrado signed by international environmental organizations such as WWF and Greenpeace in 2017, for example, privileges curtailing deforestation and favors intensifying livestock production and converting degraded grazing areas for soy expansion (Manifesto 2017). On the other hand, contestations around exploitation and dispossession might undervalue ecological dimensions and many rural social movements in Brazil are still in the process of incorporating ecological discussions (Almeida 2008:25). The Campaign in Defense of the Cerrado, launched in 2016 with the support of dozens of Brazilian social movements and organizations, has been an attempt to build a socio-environmental progressive platform for the Brazilian Cerrado (Wichinieski, interview 4 September 2017).

Finally, although this paper focuses on political contestations, it should be noted that nature itself does not simply act as a passive substrate to the advancement of industrial agriculture. Moore (2000) has traced back to the early colonization of the Americas how ecological exhaustion provoked by capitalist agriculture was an important factor propelling expansion to new areas. More critical authors have reinterpreted the current highly technological and input-dependent modern agriculture as a race against biophysical limits and as an attempt to shift the ecological contradictions it creates (Weis 2010, Taylor 2015). The indiscriminate use by agribusiness of rural spaces as sources for accumulation and sinks for its contradictions— for example, through practices that spur depletion of soils or pesticide contamination— creates new problems for capital itself (Schneider 2016). In the territorialization of soy in Matopiba, the growing water stress due to the expansion of monocultures has also affected agribusiness. In 2014–2016, droughts led to severe crop losses in South Piauí and South Maranhão (see Graph 2 below), propelling concerns on the longevity of the Matopiba frontier (Barros 2016). According to the Chief of Research of the Embrapa office in Maranhão, Embrapa and private companies in Maranhão have been investing in further biotechnology and climactic monitoring technology to address this issue (Freitas, interview 8 August 2017).
The question of whether growing ecological contradictions and political contestations will push agribusiness to shift to new territories remains open. Looking back to the formation of Matopiba, capital, with the mediation of the state, has been able to adapt to contestations not only by shifting across space, but also by changing strategies and configurations within each territory. The relevance of adaptations of agribusiness and state strategies across space, across political regimes and across land tenure regimes to the formation of the Matopiba frontier will be the subject of the following three chapters.
Chapter 4. Shifts across space

The technical documents produced by Embrapa Strategic Territorial Intelligence Group (GITE) in 2014 justified their choice of delimitation of Matopiba primarily on the criteria of selection of the Cerrado area of the four states (Miranda et al. 2014:9). At first glance, the expansion into Matopiba might seem like a logical direction, continuing policies that prioritized territorialization of soy into the Cerrado of Brazil and reaching the final portion of this biome to the northeast. However, the selection of the Cerrado itself can only be understood in opposition to the possibility of expansion into the Amazon. Looking at the map below of production of soy in Brazil (by tons per municipality) in 1995 and 2015, one can see that, in addition to the intensification of production in each area, soy has territorialized not only towards Matopiba, but also upward in the central state of Mato Grosso. Moreover, soy producers in Brazil have also expanded to other countries, especially to Bolivia and Paraguay (Borras et al. 2012), which border some of Brazil’s states with most intense grain/oilseed production (Mato Grosso, Mato Grosso do Sul and Paraná).

The expansion of soy in the north of Mato Grosso, however, has provoked multiple contestations, since it is covered by the Amazon biome, which has been the object of strong national and international concerns over deforestation since the 1990s. During the second term of Luís Inácio Lula da Silva as President, this became a strong point of contention, including...
between him and his Minister of Environment at the time, Marina Silva. The Workers’ Party (PT) government expressed interest in many development projects in the Amazon which were opposed by Marina Silva, such as development of sugarcane for biofuel and the construction of hydroelectric plants. The Minister had conflicts with her own political party and also received pressure from the Governor of Mato Grosso at the time, Blairo Maggi, to reduce inspection and containment of deforestation in the Amazon (Ambiente Brasil 2008, Paraguassú 2007).

In 2004, the released data on deforestation rates in the Amazon showed alarming loss of vegetation that year, the 2nd highest deforestation rate in records. This attracted the attention of international environmental organizations, such as Greenpeace, which released reports showing the connection between the cultivation of soy and the loss of the Amazon forest (Greenpeace 2014). After new conflicts involving a strategic plan for Amazon development in 2008, Marina Silva left the Ministry. PT governments continued to invest in development projects in the Amazon, most notably in the development of hydroelectric power.

However, the pressure from civil society organizations also led to some political agreements around slowing down deforestation of the Amazon. One of the most influential agreements was the Soy Moratorium of the Amazon of 2006, through which traders and retailers committed not to buy soy from deforested areas (Greenpeace 2014). In 2008, the Federal Government officially joined the moratorium agreement. The new Forest Code of 2012 ultimately reduced environmental protection in Brazil – including by giving amnesty to certain environmental violations committed before 2008 – but kept the prediction of the previous Code of stricter restrictions on the Amazon biome, such as an obligatory legal environmental reserve covering 80% of each private land estate.

In the context of stricter regulations and more contestations around the expansion of soy in the Amazon, Matopiba consolidated itself as a more viable option, especially considering the invisibilization of the Cerrado as a biome that was mentioned in the previous chapter. In addition to less strict environmental regulations, there have also been fewer policies to measure deforestation and other forms of environmental degradation in that biome (Manifesto 2017).

Other researchers have pointed to the connection between the shift of soy expansion to Matopiba and the contestations around expansion in the Amazon (Oliveira and Hecht 2016:270; Hershaw and Sauer 2017). As written by Oliveira and Hecht (2017:270):“one person’s forest transition is another’s deforestation, and there is evidence that the tight environmental regulations, cadastral requirements, better monitoring and enforcement in the Amazonian fringe have triggered ‘leakage’ into other woodland systems elsewhere in Brazil, Bolivia, Paraguay and Argentina (...).” Many of the environmental organizations that were involved in pushing for the soy moratorium are now recognizing this leakage effect and are pushing for a similar moratorium in the Cerrado (Manifesto 2017; Harvey 2017).

As noted in the introduction, encounters between forms of contestation and large actors of the agri-food system on a global scale create a dynamic playing field, with flexible possibilities for adaptations. In the case of the Amazon moratorium, environmental organizations were able to obtain the commitment directly from the Brazilian Association of the Industry of Vegetable Oils and the National Association of Exporters of Cereals that controlled 92% of soy in Brazil (Greenpeace 2014). In the face of restrictive commitments, however, traders and producers will typically still seek to source or produce elsewhere, where they might be fomenting the same type of socioenvironmental violation, but outside the public eye. These “leakages” – or spatial shifts – are often facilitated by the state, which can assist in locating and creating favorable conditions in
other areas and legitimizing new sites of production.

The Embrapa 2014 Matopiba studies can be interpreted as an attempt to further define and legitimize an area of territorial expansion of industrial agriculture, creating a “viable” frontier. In the Embrapa Proposal of Territorial Delimitation of Matopiba, there is a clear intent to distinguish Matopiba from the processes of deforestation in the Amazon. The document states: “Changes in the use and occupation of land in Matopiba possess characteristics differentiated from what was, for example, the process of expansion of agriculture in the south arc of the Amazon, in the 1970s and 1980s, characterized by deforestation. (...) In the case of Matopiba, with a few exceptions, there were not significative deforestations, but changes in the use and tenure of lands. Extensive and traditional native pastures, in areas of fields and cerrados, are substituted by annual cultures intensified with new technologies of production, including irrigation*” (GITE 2014:2). As stated in the beginning of Chapter 3, in reality, the expansion of intensive agriculture in Matopiba has mostly relied on the deforestation of native vegetation. The statement of Embrapa’s document relies on the assumption that “fields and cerrados” do not constitute vegetation susceptible to deforestation. In my fieldwork in the south of Piauí, I was able to see immense extensions of recently deforested and burnt land in the preparation for a new crop season.

![Recently deforested land in the highlands of Santa Filomena (personal archive, September 2017)](image)

States can also facilitate spatial shifts of agribusiness capital cross-borders. In the 2000s, Brazil was also involved in multiple agricultural cooperation programs with African countries, such as Cotton 4+Togo in West Africa and ProSavana in Mozambique. ProSavana, the Triangular Cooperation Program for the Agricultural Development of the Tropical Savana in Mozambique, was launched in 2009, in an attempt to replicate Prodecer. Evidence emerged that Brazilian soy producers were interested in starting operations in Mozambique under the umbrella of ProSavana (Nogueira, Ollinaho 2013:8). However, multiple contestations to ProSavana emerged, linking social movements and researchers from Brazil, Japan and Mozambique, which led to the Campaign “No to ProSavana” and pushed the actors involved in the cooperation to have to adapt their plans (Calmon 2014). Difficulties encountered in Mozambique might have been a possible additional factor encouraging more investment and attention around Matopiba in recent years, since many of the actors that were involved in Prodecer and ProSavana and who are increasingly interested in Matopiba coincide. These actors include not
only the governments of Brazil and Japan, but also private companies of each country, such as Vale and Mitsui.

In 2014, 2016 and 2017, the Ministry of Agriculture of Brazil held events with the Japanese government called Dialogues Brazil-Japan on Agriculture and Food, in which possibilities of investment and cooperation have been discussed. In the last edition, held on July 7th 2017, the states of Maranhão, Tocantins and Bahia, as well as the Ministry of Transportation of Brazil, gave presentations on investment opportunities in logistics, infrastructure and transportation. Mitsui, a Japanese trader, emphasized the importance of Matopiba for Brazil-Japan future relations at the event. The strategic alliance between Vale and Mitsui has been present both in plans for Mozambique and those for Matopiba, as the current operator of Carajás Railway and other key infrastructure and logistics operations in Matopiba is VLI, a holding formed by Vale, Mitsui and a state-controlled investment fund (FI-FGTS). Moreover, a project officer of the Japan International Cooperation Agency (JICA) also indicated in interview that they are waiting for a definition from the Japanese Government on how they can cooperate on Matopiba (Komazawa, interview, 18 September 2017).

The perception of Matopiba as an alternative to contested deals in Africa seems to have seeped into the discourse of the key actors promoting the Brazilian frontier. When interviewed, the Secretary of Agriculture of Maranhão Márcio Honaiser, who participated in the Matopiba Committee, claimed that “one of the few regions [in the world] still with potential for expansion is Matopiba. There are savannas, there are other regions in Africa, but with many conflicts, with a lot of difficulties (...) They would have characteristics of potential in terms of soil and climate and even of extension, but with more difficulties to produce in the short term**” (Honaiser, interview 9 August 2017). It remains to be seen whether Japanese and Brazilian investments in Matopiba run parallel to those in Mozambique or if they have received an extra boost as a spatial shift to avoid a region in which contestations escalated and where institutional support for agribusiness is not as consolidated.

Another relevant clarification is that spatial shifts by agribusiness capital in response to contestations do not necessarily mean industrial agriculture operations leaving or avoiding an area completely, but can be restricted to the shifts in space by certain sectors or by certain actors. The moratorium of soy in the Amazon not only left a relative space open for the territorialization of soy in other biomes, but also diverted attention from other agricultural sectors. As stated in the introduction, deforestation in the last years in the Amazon has largely been led by livestock. Hence, sectors must be understood in conjunction to properly apprehend agribusiness capital adaptations. This is especially important considering the expansion of soy typically pushes livestock to new areas, while degraded pastures are often later converted to soy plantations, in a vicious, ever-expanding cycle (Domingues, Bermann 2012; Chemnitz, Becheva 2014:36).

In addition, spatial leaps of agribusiness investment have not only occurred into Matopiba, but also within Matopiba, in relation with the conjuncture of contestations described in Chapter 3. As the graph below shows, in Santa Filomena, Gilbués and Bom Jesus, in the south of Piauí, where there have been fewer possibilities for organized and scaled-up reactions, the area of planted soy has expanded quickly, much above the general rate in Brazil. In the municipalities in the East of Maranhão, soy had advanced at a more moderate pace. One cannot

---

9 This information is based on the unpublished powerpoint presentations of the 3rd Dialogue Brazil-Japan, to which I obtained access at the Ministry of Agriculture on 15 August 2017.
simply make a straightforward comparison between the contestations or lack thereof and speed of territorial expansion of soy in East Maranhão and South Piauí, because there are multiple other differences between these regions to consider. The most important caveat is that the municipalities in South Piauí are typically much larger: Santa Filomena and Bom Jesus each surpass 5000 km² in extension, while Brejo and Buriti are each smaller than 1500 km² (IBGE 2017). Also, the soy in some municipalities in East Maranhão (such as Mata Roma) shares space with eucalyptus plantations, which are estimated to cover around 30-40 thousand hectares in the region (Souza, Overbeek 2013).

Graph 3. (Source of data: PAM/IBGE 2017; my organization in graph)

All these particularities notwithstanding, there is also evidence that there were disadjustments between agribusiness expectations for soy advancement in East Maranhão and the actual trajectory. In this sense, legal and political contestations might have played a role in propelling spatial shifts outwards, at least by certain agribusiness actors. In 2003, Embrapa estimated that around 500-600 thousand hectares in East Maranhão could be used for intensive farming (Monteles 2003). In 2015, soy occupied a little over 70 thousand hectares in the region (PAM/IBGE 2017). According to the Secretary of Agriculture of Maranhão, the region still has potential for soy expansion, but it will be a slow growth compared to other possible new areas in Maranhão, due to the prevalence of small plots of land (Honaiser, interview 9 August 2017). However, as described in previous chapters, East Maranhão has also been a site of grilagem and companies have tried to irregularly appropriate large plots of land. A 2013 news article 2003 cited SLC Agrícola Ltda, one of the largest commodity producing companies in Brazil, as having acquired 213 thousand hectares in Buriti and starting soy operations in the area called Fazenda Palmeira (Monteles 2003). In 2012, SLC sold Fazenda Palmeira, which was then reported to be 14,625 hectares in extension (Oliven 2012) and, according to its website, the company no longer has farms in East Maranhão. This exit seems to be correlated to the growing reactions to grilagem and environmental violations in the region. SLC was one of the companies
in Buriti to suffer a lawsuit for environmental damage by the Public Ministry in 2007. With the exit of larger companies, the main apparent actors involved in soy production in East Maranhão continue to be gaúchos (Gaspar 2013). This contrasts with the South of Piauí, which has the presence of larger companies, such as Pinesso, Radar, Insolo, Damha and SLC.

The association of national producing companies with international financial capital – as has been the case of SLC, which was listed in the stockmarket in 2007 – can also implicate in further liability for socioenvironmental violations. Some organizations provide consultancy specialized in socioenvironmental risks to potential investors in companies. Chain Reaction Research coalition, for example published this year a research report for investors on the risks of investing in SLC due to its association with deforestation in Matopiba (Rijk et al. 2017).

On the other hand, it is important to note that spatial shifts by certain agribusiness actors to leave areas in which contestations and tensions have mounted might also rely on leaving frontmen in place or in practice waiting for the “dirty work” to be executed by actors that are less liable or traceable. This has often happened in the process of grilagem in Matopiba, in which grileiros first “clear the area” and commit the intimidation and forms of violence required to remove people and later sell the regularized land to companies (Pitta, Mendonça 2015). The permanence of certain actors and sectors in an agribusiness frontier while tensions are focused on other actors/sectors resembles a trick of sleight of hand. This might mean that some shifts across space might be more apparent than real or can be otherwise interpreted as a shift across time (a postponement), as companies can return or appear more visibly in the region of contestation after the situation has been subdued. This is fundamental to understand the shifts that have also occurred across political regimes and across land tenure regimes in the formation of Matopiba, which will be addressed in the final two chapters.
Chapter 5. Shifts across political-administrative regimes

As has been described so far, the advancement of industrial agriculture in Matopiba has heavily relied on the support of the state. While there are strong continuities between the policies of the 1970s and 1980s and those of the 2000s, the forms through which the Brazilian state has balanced the imperatives of accumulation and of legitimation and how it has balanced deployment of coercion and gathering of consent has also greatly varied across political regimes. These variations have both changed the possibilities for contestations and how agribusiness capital’s strategies adapt to emerging reactions.

The first large development programs facilitating the entry of agribusiness capital into Matopiba, such as Prodecer and Great Project Carajás, were launched under the Brazilian military regime (1964-1985), during which contestations were violently repressed and policies of colonization of land often relied on massacres in the countryside. The history of violence against peasants and indigenous peoples during the dictatorship is still being recovered and has been one of the areas of research of the National Commission of Truth created in 2011 to investigate human rights violations from 1946 to 1988. The committee found that at least 8350 indigenous people were killed in this period, with complicity of the state (Klein 2014). In the 1980s, with democratization, there is a rush of formation of social movements and left-wing organizations, including MST and the Workers’ Party (PT). In this context, land reform returns as one of the central proposals of the Brazilian Left (Fernandes 2010:164). The capacity of influence of Brazil’s rural social movements grew in the 1990s, although this was also the period of some of the most violent massacres of peasants the democratic period, largely occurring in the Amazon (Massacre of Corumbiara in 1995 in Rondônia and Massacre of Carajás in 1996 in Pará).

Many authors have written about the frustrations of expectations of rural social movements for land reform and a progressive agricultural and land policy during the Workers’ Party governments, under the Presidential terms of Luís Inácio Lula da Silva (2003-2010) and Dilma Rousseff (2011-2016). While there were some new progressive policies, such as those supporting small-scale farming, the much-awaited redistributive large-scale land reform did not occur and the alliances of representatives of PT with sectors of agribusiness intensified across the years (Fernandes 2010:190-193; Sauer, Mészáros 2017). My focus in this chapter is on how, in the building of Matopiba soy frontier, PT governments represented a sophistication both in forms of state participation in agribusiness expansion and in the balance of coercion/consent, as opposed to the blunt violence under the military regime. The shifts in state policy, as the dynamic result of previous escalation of contestations in Brazil, have contributed to avoid the escalation of contestations in Matopiba and have shaped the strategies of agribusiness.

After the election of Lula in 2002, sociologist Francisco de Oliveira (2003) signaled that the new PT government had to be understood in the light of a new formation of dominant classes in Brazil: the traditional representatives of labor (associated with PT) and traditional representatives of finance had come together to co-manage capital through the use of public funds. In his analysis, the clearest expression of this was that former PT union leaders had become managers of the pension funds of state companies (and former state companies) – of which Previ (pension fund of employees of Banco do Brasil) was the most powerful. These actors also became participants in the administration of the funds of BNDES – the National Bank of
Economic and Social Development -, used to launch capital accumulation in Brazil. Virgínia Fontes (2010:336-7) also points to the election of Lula as the consolidation of a process of conversion of pension funds into controllers of companies and propellors of the process of capital concentration in the country. The fusion between workers’ representatives and capitalist sectors, and between progressive social policies and promotion of capital concentration by a proactive state, under the PT governments, has been interpreted in different forms. Armando Boito Jr. (2012) called this mix the neodevelopmentalist program, which is the “developmentalism of the era of neoliberal capitalism” (Boito Jr. 2012:5).

Taking national development as a motto, the PT government created policies that boosted and protected national companies, especially in construction, agribusiness and mining (Boito Jr. 2012) and offered special lines of credit through BNDES. The Program of Acceleration of Growth (PAC), launched in 2007 to promote large infrastructure, urban, logistics and energetic works, was also a key neodevelopmentalist policy. Government also invested directly into national companies through state company pension funds, BNDESPar (the investment branch of BNDES) and other investment funds (such as FI-FGTS, an investment fund created in 2007 to use workers’ state-held funds for investment in infrastructure). Oliveira (2013:278-9) pointed to the importance of understanding the fusion of state-making processes and land-based capital accumulation, particularly in the Brazilian case. The neodevelopmental project can be seen as a strong case of state-managed capitalism, which “is more capable of adapting to and accommodating social and environmental stress” (Oliveira 2013:279).

In the last years, more authors have been critical of the role of the PT governments in promoting the internationalization of Brazilian companies under nationalist bravados, leading to dispossession and exploitation in Latin American and African countries (Garcia 2012; Zibechi 2014). However, territorial expansion of national companies was not only encouraged by the Federal Government during the PT terms into other countries. The Brazilian state has also facilitated the creation of the Matopiba frontier through its close liaisons with and investments in national companies in that region.

Through PAC, the Federal Government helped finance key infrastructure demands of agribusiness in Matopiba, including the extension of the North-South Railway in Maranhão and the construction of the Terminal of Grains of Itaqui Port in São Luís. As explained in Chapter 2, Vale, previously a state company, was associated with projects of agricultural modernization in Matopiba in the 1980s through Great Project Carajás and in the 1990s through the North Corridor of Exportation Program. In 1997, Vale was privatized, but majority control was turned over to Valepar, which in turn was controlled largely by state company pension funds and BNDES (Coelho et al. 2017), which meant in practice a continuous large influence of the Federal Government over Vale. The government also injected money through FI-FGTS into the formation of VLI, the logistics company holding formed by Vale, Mitsui, FI-FGTS and Brookfield. VLI controls key infrastructure sites and operations in Matopiba, including the concession (from Vale) of Carajás Railway, operation of the North-South Railway and the Integrating Grain Terminal of Porto Nacional in Tocantins (VLI n.d.). Vale has continued to have an important role attracting new companies to the region. It, for example, made an agreement with pulp and paper company Suzano in 2009 selling 85 thousand hectares of land in

---

10 This conjuncture is currently under change. In February 2017, a new agreement of stockholders decided on a restructurings of the control of the company, reducing the influence of BNDES and of pension funds (Coelho et al. 2017).
Maranhão and giving special conditions for Suzano to use Vale’s railway system (Vale 2009).

It is difficult to know the full extent of involvement of the Federal Government in key operations in Matopiba during the PT governments, since it is likely that deals were also forged in the shadows. The recent corruption scandals in Brazil, such as Operation Lava-Jato and Operation Carne Fraca, have provided indications of the extent of promiscuous intermingling between politicians and national companies such as JBS and Odebrecht.

There was also not a clear indication of a regionalized development policy until the 2015 proposal of a Matopiba Plan of Development. The proposal of Matopiba regionalization in 2015 was, in fact, part of an idea of the Ministry of Agriculture to have a development plan for three regions, which would include also the Semi-Arid and the Amazon (Mazzoleni, interview 15 August 2017). As cited before, the regionalization provided a clearer point for contestation by social movements. However, the fact that Workers’ Party managers of workers’ funds co-managed this process under a banner of national development also meant that historical actors in the Brazilian Left that might have contested this process at a previous time period were, indeed, co-participants.

The framing of a national coalition of historical representatives of fractions of labor and capital under neo-developmentalist, obscuring conflicts of interests, connected also to another trend that obscured what was occurring in Matopiba: many contestations of the land rush after the 2007-8 crisis in Brazil were concerned primarily with risk of foreignization of land.

A series of scandals emerged in 2008 around intended land deals in Brazil by foreign companies and around the divulgation in the media by the National Land Reform Institute (INCRA) that possibly million of hectares of land in Brazil were owned by foreigners. MST at the time also expressed concerns over growing foreignization. These reactions culminated in a regulation of 2010 limiting foreign ownership of land in Brazil (Oliveira 2010). The limits on foreign acquisition have helped consolidate a specific geopolitical arrangement within agribusiness capital in Brazil: while production has largely been undertaken by national farmers and companies, foreign capital has entered into other sectors, such as processing, trading and the inputs. In the last years, sectors that were traditionally dominated by the Brazilian state, have seen the growing penetration of foreign companies. The seed market, previously largely controlled by Embrapa, is now mostly controlled by multinationals (Freitas, interview 8 August 2017). Moreover, financing of agribusiness, which has been dominated by state banks, has also seen an increase in participation by foreign banks. While Banco do Brasil, Banco da Amazônia and Banco do Nordeste still dominate the financing of lagriculture in Maranhão, Dutch bank Rabobank has increased its participation, reaching 6.26% of the 2.37 billion reais of credit in 2015 in that state (Banco do Brasil 2015). Thus, there was a tenuous arrangement under the Workers’ Party government in which national producers were relatively protected in production and foreign capital had opportunities for profit in other areas. This has also been the line encouraged by the Foreign Investment division of the Ministry of Agriculture, which clarifies to potential foreign investors the limits on foreign acquisition of land and presents other opportunities for investment in the agricultural sector (Requião, interview 27 September 2017).

Although national producers have often been the actors directly involved in conflicts in Matopiba, it is foreignization of land that tends to receive more political attention. Ariovaldo Umbelino de Oliveira, a Brazilian geographer, went as far as to say the fear of foreignization of land after 2008 was actually a farce of the Lula government to distract people from the counter-agrarian reform, in particular the legalization of grilagem in the Amazon (Oliveira 2010). While
many researchers have pointed to the importance of not narrowing the discussion of land grabbing in Brazil to foreignization (Sauer and Borras 2016; Pauli and Pereira 2016), it is still an angle that tends to attract more attention. In the last years, there has been growing evidence of forms through which international capital can bypass the limits on foreign acquisition of land (Fairbairn 2015), including the fact that a few larger national companies, such as SLC, have become listed in the stockmarket. The discovery of investments by foreign pension funds, such as TIAA-CREF, in land in Matopiba (Pitta and Mendonça 2015) has been one of the triggers of new contestations to agribusiness and speculation expansion in Matopiba, such as the International Fact-Finding Mission of September 2017. This is an understandable path, since the discovery of involvement of these funds allows for linkages with organizations from other countries, including from the host countries of the investors. Nevertheless, it is also concerning that Matopiba was not initially emphasized in the global debate on the land rush wave of 2007-8, although hundreds of thousands of hectares were converted to soy each year.

I have thus far pointed to two elements of the political regime under PT that helped eschew previous escalation of contestations in Matopiba: the co-management of the frontier building by the Workers’ Party and the attention given to foreignization of land in Brazil since 2008. There is a final relevant factor I would like to point out tied to the national (neo-)developmentalist project of the 2000s: the income redistribution policies under PT, in particular the distribution of Bolsa Família (a monthly state allowance to poor families). As stated previously, the four Matopiba states are among the poorest states in Brazil. Social welfare programs, alongside economic growth, under the PT governments helped alleviate extreme poverty and significantly reduce hunger in Brazil (FAO et al. 2015:31). In Maranhão, the level of extreme poverty reduced from 53.1% in 1995 to 27.2% in 2008; while Piauí had a reduction from 46.8% of people in extreme poverty in 1995 to 26.1% in 2008 (IPEA 2010:7). Many of the peasants affected by soy that I interviewed in Santa Filomena, Gilbués and Buriti mentioned the importance of Bolsa Família and the access to rural retirement pensions in their livelihoods. In a sense, the existence of social welfare policies in Brazil prevented an even more drastic situation of relegating the gradually dispossessed peasants in Matopiba as “surplus populations”. Tania Li (2010) uses this term to discuss people who are gradually let die, since they are expelled or lose conditions of reproduction on their lands, but are not incorporated into other areas of the economy, since their “labour is surplus in relation to its utility to capital” (Li 2010:68). Certainly minimum welfare policies in the region of Matopiba do not negate the gradual strangulation of peasants described in Chapter 2 and do not mean that their healths and lives are not at risk – in some communities I visited in the south of Piauí, children showed clear signs of subnutrition. Moreover, people are slowly “let die” in other ways, such as pesticide contamination. Nonetheless, in a way, government transfer programs cushioned the gradual loss of control over resources and might have prevented reactions from below or a worse social catastrophe. A growing economy and relative low unemployment rates in those years also provided some exit strategies, as youth of the communities I visited have sometimes moved to cities in search of jobs. Moreover, these policies probably also played a role in gathering consent for the neodevelopmental project of PT, as Piauí and Maranhão have been among the states with highest percentage of votes for Lula and Rousseff.

While this section has been focused on the role of the Federal Government, in the last years, Piauí and Maranhão have had recent state governments in hands of PT (in Piauí, Wellington Dias is on his third term: 2003-2010, 2015-present) or allies (in Maranhão, Flávio...
Dino of PCdoB has been Governor since 2015). Thus, elements of the dual strategy of coupling socially progressive policies with the encouragement of the advancement of agribusiness also occurred at the state level. In Maranhão, for instance, a State Committee against Violence in the Countryside and in Cities was recently formed with the participation of government and civil society to prevent conflicts (Paiva, interview 4 August 2017). At the same time, the government has – sometimes literally, as in the case of arrival of Group Scheffer in the west of Maranhão – welcomed the continual entry of soy producers into new regions (FAEMA 2017).

Interestingly, the Federal Government justified the proposal of Matopiba as a socially progressive policy, with the idea of promoting the “middle class in the countryside” (Portal Planalto 2015b) instead of as further strengthening of large agribusiness producers. The Embrapa studies from 2014 were actually developed through a partnership with the Ministry of Agrarian Development, which has been more geared towards policies for smaller farmers. When interviewed, the officer of the Ministry of Agriculture who wrote a draft of the Agricultural Development Plan of Matopiba emphasized the difference between the proposal of Matopiba and the policies of 1960s-1980s. According to him, the Matopiba Plan was intended as a policy of inclusion of small farmers, instead of the exclusion that occurred in previous agricultural modernization (Mazzoleni, interview 15 August 2017).

As explained in Chapter 2, the expansion of industrial agriculture in Matopiba has definitely been exclusionary, but has excluded people and other living beings with more subtle forms of violence, in lieu of the blunt violence of the military regime. Matopiba was an artfully constructed conciliation proposal, in which the Cerrado was selected in place of the Amazon, national companies were protected without excluding foreign capital and the expulsion of peoples occurred mostly gradually, rather than through direct eviction. Many of these shifts were, in fact, preventive of scaled-up contestations. Agribusiness capital ultimately benefited from this conjuncture, but also continued to lobby for the further removal of environmental protection and territorial rights of traditional populations. This became clearer when the neodevelopmental regime was destituted in April 2016 and Michel Temer took over. He starting enacting the desired policies of agribusiness, proposing a series of socioenvironmentally regressive laws (Guetta 2017) amidst the political and economic instability in Brazil.

Legal possibilities of land acquisition and tenure have also been a central changing factor in the Matopiba frontier. Although these changes have been intimately connected to the mutating political regimes, I have chosen to address them in a separate chapter to highlight the specific importance of adaptations across time of agribusiness capital and the state in forms of appropriation of land.
Chapter 6. Shifts across land tenure regimes

“Practically all of the highlands were distributed to foreign or Brazilian capital or speculation in this way. According to the law, you cannot directly receive, for example, 1000 or 3000 hectares from the state (...) so they had to find people to do a sort of false distribution of lands and later sell the land. (...) A single man later would buy 30 titles of land and register them.”

Rural unionist on forms of grilagem in Piauí (B. interview 6 September 2017)

As stated in previous chapters, the expansion of soy in Matopiba has frequently relied on the grilagem (illegal appropriation) of untitled public lands (called terras devolutas). A strong frenzy of grilagem started in the 1970s and 1980s in Maranhão and Piauí, often with the acquiescence or co-participation of local elites and the state governments, especially through their land institutes (Alves 2009; Miranda 2011; Shiraishi 1995). Among the judicial decisions of the Agrarian Court of Piauí that blocked irregular land estates, it is possible to find cases in which individual agents or companies acquired plots of land and later registered the plot with a size 10 or even 100 times larger than the original acquisition. In one case in the extreme south of Piauí, a plot of 437 hectares was “rectified” through a judicial petition in the 1990s to be registered as a plot of over 49 thousand hectares. In many cases, judges or public notary offices facilitated the alteration of the dimensions of the plot in the land registry or aided in the creation of false chains of ownership to hide the public origin (Shiraishi 1995).

Under redemocratization, pressure increased to restrain widespread grilagem, especially under the new Constitution of 1988, which set the obligation of social function of land and established more mechanisms of oversight, including through the Public Ministry (state prosecution). The Land Law of Maranhão of 1991, for example, established the preference of acquisition of public land for those traditionally occupying an area of up to 200ha and created stricter conditions for the titling of land over those dimensions. Mounting conflicts also led to the creation of a court specialized in agrarian conflicts in Piauí in 2011 and a specialized agrarian prosecution in Maranhão in 2013.

Specific policies for land regularization of areas with untitled public lands and multiple claims have also been encouraged nationally and internationally. In 2009, the Federal Government launched the Terra Legal program with the declared intention of regularizing “titles of 300,000 homesteaders in as yet unassigned public land in the Amazon region (both urban and rural) over the course of three years” (Oliveira 2013:269). The program, which did not reach its goals in the planned time, also facilitated the regularization of land of larger estates and created an overall more favorable environment to the expansion of agribusiness in the fringes of the Amazon and the Cerrado (Oliveira 2013:271-72). The World Bank has also encouraged the strengthening of property rights and the consolidation of land markets in order to efficiently allocate land (World Bank 2007:9). Since 2016, the World Bank has directly engaged in a partnership with the state of Piauí and INCRA for land regularization in 39 municipalities (INCRA 2016). The new Land Law of Piauí of 2015, supplanting the 1980 law, was also proposed as a form to promote land regularization.

In this new context, there have also been shifts in strategies of appropriation of land by agribusiness, which has turned to more sophisticated forms of grilagem. A rural unionist in Piauí told me about a case in the municipality of Baixa Grande do Ribeiro in Piauí, where a leader of a local rural workers’ union on several occasions requested multiple land titles at the
state land institute claiming to be representing peasants from communities and later sold the titles to entrepreneurs (B., interview 6 September 2017). In my fieldwork in Piauí, I also heard reports of lawyers that pretended to represent communities in order to encourage land titling and later transfer the titles obtained through their powers of attorney. In other cases, some members of communities themselves have agreed to petition the state for land titling only to sell their plots. Roseane Dias, an advisor of Sociedade Maranhense de Direitos Humanos that follows conflicts in East Maranhão, also reports that “we see a new form of appropriation of public lands where there are traditional communities. Instead of a, let’s say, pure form of grilagem, which is the production of the document in the public notary office (...) we notice a refinement in the forms of wrongful appropriation of territories*” (Dias, interview 8 August 2017). She gave an example of a community in which, after years of pursuing land regularization with the state land institute, land titles were finally expedited for a few people from the region – who were not, however, recognized as members of the community – who had already agreed to sell the land to a soy farmer. Thus, instead of straightforward forgery of documents to appropriate immense estates of land, actors have used peasants in need of their own land titulation as conduits to gather multiple regularized private titles.

Moreover, in recent years, environmental requirements for landowners have also been subverted and used by agribusiness to appropriate land. This matches a larger current trend that has been identified as green grabbing, that is, “the appropriation of land and resources for environmental ends” as a further form of taking control of resources away from the poor (Fairheard et al. 2012:238). Brazilian Forest Code obliges that each property in the Cerrado biome set aside 35% as a “legal reserve” for environmental protection. In a community or Araçás in Buriti, Maranhão and in the community of Sete Lagoas, Piauí that I visited there were cases of peasants suffering intimidation and legal action by soy farmers claiming that the peasants’ land constituted their legal reserve. In these regions, soy farmers have typically deforested the entire plains they originally appropriated and in last years have moved to claim the area preserved by the traditional populations as their legal reserve. Another subversion of environmental law for the purpose of grilagem has occurred through CAR, the Rural Environmental Cadastre created in 2012. CAR obliges all rural estates to register on an electronic database for the purpose of monitoring environmental obligations. The seminar of the Campaign in Defense of the Cerrado with traditional communities that I attended in August 2017 discussed multiple new conflicts due to the use of CAR by agribusiness actors as a form of declaring peasant lands at their own in the cadastre. Although CAR is an instrument of environmental monitoring and not of land tenure, in practice it has been warped as “proof” of land possession.

Finally, in shifts of forms of appropriation of land, we see the dynamic described at the end of Chapter 4 in relation to the common use of frontmen or temporary placeholders to do the “dirty work” before more consolidated agribusiness companies appear. While the use of lands previously acquired through outright grilagem leaves the risk that at some point the state will reclaim the illegally appropriated lands, awaiting further land regularization means that: a) the state might also title land to larger farmers, giving amnesty to previous grilagem, as has partially occurred in the Terra Legal program in the Amazon; b) peasants can receive their land titles, but eventually be pressured to pass them on. Given the context of environmental pressure, lack of basic public policies and lack of alternative sources of income, land titling of traditional communities might over time lead to the transfer of more land to the hands of agribusiness. During my fieldwork in Piauí, members of rural social movements shared similar concerns
around the Land Law of Piauí of 2015, which has been titling land to larger farmers and also fragmenting communal territories through the emission of individual land titles. According to Saulo Costa, an agent of CPT and researcher on agrarian conflicts in Matopiba, this process is also happening in Maranhão. In his opinion, recent titling of land in the state has served the role of a market land reform that reduces conflict with communities, but fragments communal lands and creates a reserve of private lands for future investments (Costa, interview 11 August 2017).

Strategies of agribusiness to appropriate land have varied from the period of unbridled grilagem to the current transition regime which is not yet a fully formed private land market. The ability to continue appropriating land even by using land titling of peasants as a conduit or by applying laws of environmental restriction as a form of expanding land control confirm the flexibility of agribusiness capital, which has typically relied on the active or passive complicity of the state.
Chapter 7. Conclusion

In my paper, I have attempted to understand how agribusiness has reacted to multi-scale contestations by shifting across geographic space, across political-administrative regimes and across land tenure regimes, with reference to the process of making the Matopiba soy frontier. In terms of shifts across space, I have found that the expansion of agribusiness in Matopiba has partly been a shift away from the Amazon, in response to strong contestations over deforestation. Moreover, there is also evidence that Matopiba has received more interest and investments in the last years as an alternative to Mozambique, after cross-continental opposition from social movements emerged to an attempt of frontier-making in the north of the country. Within Matopiba as well, there have been spatial shifts, as has been the case of the exit of SLC from East Maranhão.

In reference to shifts across political regimes, I have found that the Workers’ Party (PT) governments have deployed coercion and gathered consent for the expansion of land-based capital accumulation in more sophisticated forms. Historical representatives of labor movements have co-managed the expansion of Brazilian capital and pushed for the territorialization of national companies in Matopiba. While contestations to current deals in Brazil have often focused on foreignization, the Matopiba frontier has been built largely through an association of national producers and foreign capital in other areas of agribusiness. Moreover, progressive social welfare policies have also cushioned the process of loss of resources by communities in Matopiba. Finally, forms of appropriation of public lands have also become more sophisticated in the last years. Instead of the large-scale grilagem of the military regime, agribusiness has resorted to subverting land titling laws and environmental laws to appropriate more land.

Once again, we are at a crossroads. Matopiba was presented as a conciliatory option for agribusiness expansion under a particular political conjuncture. However, the balance of social and political forces of the Workers’ Party government that helped produce Matopiba has now been torn apart with the ousting of President Dilma Rousseff. Michel Temer’s government has signaled willingness to further open the Amazon to extractive projects and to remove territorial rights and environmental protection (Guetta 2017). The new political moment will probably propel new shifts of agribusiness.

The study of the multiple shifts in Matopiba is important theoretically because it pushes us to question assumptions that were made in the discussion of the land rush after the 2007-8 crisis, over certain directions of expansion, such as Africa as the last continent or weaker states as obvious directions for capital expansion. In the last years, multiple new shifts have already occurred in response to multi-scale contestations and it is important to recenter the contingencies of politics in our analyses. Methodologically, the dynamics presented in this paper show that it is fundamental to further engage in cross-historical, cross-geographical and cross-sectoral studies to visualize the shifts. Politically, this case also reveals the risks of processes of contestation that focus on certain phenomena (such as foreignization of land), places or sectors inadvertently playing into indirect land use change. As can be seen throughout the building of processes in Matopiba, what has been called indirect land use change is not only an occasional phenomenon, but has rather been the modus operandi of flexible and mobile capital in response to contestations. By calling these indirect effects shifts across space and regimes, I
have attempted to highlight the relevance of politics and of interconnections to the making of the Matopiba frontier.
References


<http://www.fian.org/library/publication/caravana_matopiba_urges_brazilian_authorities_to_take_action_warns_foreign_investors/>


### Appendix A

List of informants (some names have been omitted to avoid exposure of interviewees)

<table>
<thead>
<tr>
<th>Interviewee</th>
<th>Function</th>
<th>Date of interview</th>
</tr>
</thead>
<tbody>
<tr>
<td>Márcio Honaiser</td>
<td>Secretary of Agriculture of Maranhão</td>
<td>August 9th 2017</td>
</tr>
<tr>
<td>Carlos Freitas</td>
<td>Chief of Research of Embrapa Cocais</td>
<td>August 8th 2017</td>
</tr>
<tr>
<td>Juliana Linhares</td>
<td>Lead Prosecutor of Maranhão Land Institute (ITERMA)</td>
<td>August 7th 2017</td>
</tr>
<tr>
<td>Haroldo Paiva</td>
<td>Prosecutor for Agrarian Conflicts in Maranhão</td>
<td>August 4th 2017</td>
</tr>
<tr>
<td>Emmanuel Soares</td>
<td>Former Prosecutor of Buriti, East Maranhão</td>
<td>August 9th 2017</td>
</tr>
<tr>
<td>Saulo Costa</td>
<td>Agent of CPT and researcher</td>
<td>August 11th 2017</td>
</tr>
<tr>
<td>Roseane Dias</td>
<td>Advisor for Sociedade Maranhense de Direitos Humanos</td>
<td>August 8th 2017</td>
</tr>
<tr>
<td>Mayron Régis</td>
<td>Journalist of Fórum Carajás</td>
<td>August 7th 2017</td>
</tr>
<tr>
<td>Rafael Gaspar</td>
<td>Researcher and member of Group of Rural and Urban Studies of UFMA</td>
<td>August 7th 2017</td>
</tr>
<tr>
<td>P.</td>
<td>Peasant affected by expansion of soy in Buriti, Maranhão</td>
<td>August 10th 2017</td>
</tr>
<tr>
<td>S.</td>
<td>Peasant affected by expansion of soy in Buriti, Maranhão</td>
<td>August 10th 2017</td>
</tr>
<tr>
<td>Isolete Wichinieski</td>
<td>Coordinator of Campaign in the Defense of the Cerrado / CPT-Goiás</td>
<td>September 4th 2017</td>
</tr>
<tr>
<td>H.</td>
<td>Agent of CPT-Piauí</td>
<td>September 14th 2017</td>
</tr>
<tr>
<td>R.</td>
<td>Agent of CPT-Piauí</td>
<td>Multiple days</td>
</tr>
<tr>
<td>A.</td>
<td>Role in a rural labor union in Piauí, former machine operator for soy companies.</td>
<td>September 10th 2017</td>
</tr>
<tr>
<td>B.</td>
<td>Role in a rural labor union in Piauí</td>
<td>September 6th 2017</td>
</tr>
<tr>
<td>Rosilene Lozzi Bandera</td>
<td>Coordinator within the Secretariat of International Relations – Ministry of Agriculture.</td>
<td>August 15th 2017</td>
</tr>
<tr>
<td>Carlos Alberto Nunes Batista</td>
<td>Coordinator of Infrastructure and Logistics - Ministry of Agriculture</td>
<td>August 15th 2017</td>
</tr>
<tr>
<td>Rafael Guimarães Requião</td>
<td>Coordinator of Foreign Investments - Ministry of Agriculture</td>
<td>September 27th 2017</td>
</tr>
<tr>
<td>Kazuaki Komazawa</td>
<td>Project Coordinator – JICA Office in Brazil</td>
<td>September 18th 2017</td>
</tr>
<tr>
<td>Rui Veloso</td>
<td>Researcher of Embrapa Cerrados</td>
<td>August 30th 2017</td>
</tr>
</tbody>
</table>
### Appendix B

Partial data used for Graphs A and B (Source: PAM/IBGE)

**Area planted in hectares with soy per states of Matopiba**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Brasil</td>
<td>11,584,734</td>
<td>11,702,919</td>
<td>13,693,677</td>
<td>23,426,756</td>
<td>23,339,094</td>
<td>32,206,387</td>
</tr>
<tr>
<td>Maranhão</td>
<td>15,305</td>
<td>87,690</td>
<td>178,716</td>
<td>372,074</td>
<td>495,756</td>
<td>761,225</td>
</tr>
<tr>
<td>Tocantins</td>
<td>30,120</td>
<td>20,237</td>
<td>57,919</td>
<td>355,300</td>
<td>352,875</td>
<td>830,031</td>
</tr>
<tr>
<td>Piauí</td>
<td>1,560</td>
<td>12,784</td>
<td>40,004</td>
<td>198,547</td>
<td>343,092</td>
<td>668,618</td>
</tr>
<tr>
<td>Bahia</td>
<td>360,015</td>
<td>470,575</td>
<td>628,356</td>
<td>870,000</td>
<td>1,017,250</td>
<td>1,440,135</td>
</tr>
</tbody>
</table>

**Area planted in hectares with soy per selected regions and municipalities of Matopiba**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Brasil</td>
<td>11,584,734</td>
<td>11,702,919</td>
<td>13,693,677</td>
<td>23,426,756</td>
<td>23,339,094</td>
<td>32,206,387</td>
</tr>
<tr>
<td>Maranhão</td>
<td>15,305</td>
<td>87,690</td>
<td>178,716</td>
<td>372,074</td>
<td>495,756</td>
<td>761,225</td>
</tr>
<tr>
<td>Chapadinha</td>
<td>60</td>
<td>411</td>
<td>14,577</td>
<td>42,830</td>
<td>64,965</td>
<td></td>
</tr>
<tr>
<td>Brejo (MA)</td>
<td>100</td>
<td>5,200</td>
<td>12,700</td>
<td>26,775</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Buriti (MA)</td>
<td>6</td>
<td>4,050</td>
<td>11,900</td>
<td>13,500</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mata Roma (MA)</td>
<td>1.700</td>
<td>3.700</td>
<td>8,100</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Piauí</td>
<td>1,560</td>
<td>12,784</td>
<td>40,004</td>
<td>198,547</td>
<td>343,092</td>
<td>668,618</td>
</tr>
<tr>
<td>Alto Parn. Piauiense</td>
<td>1,560</td>
<td>12,062</td>
<td>32,004</td>
<td>132,524</td>
<td>228,891</td>
<td>429,696</td>
</tr>
<tr>
<td>Santa Filomena (PI)</td>
<td>1,500</td>
<td>275</td>
<td>2,800</td>
<td>11,010</td>
<td>25,405</td>
<td>59,595</td>
</tr>
<tr>
<td>Alto Méd. Gurguéia</td>
<td>212</td>
<td>4,980</td>
<td>50,883</td>
<td>93,767</td>
<td>192,184</td>
<td></td>
</tr>
<tr>
<td>Bom Jesus (PI)</td>
<td>1.440</td>
<td>24,429</td>
<td>34,635</td>
<td>55,780</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gilbués (PI)</td>
<td>12</td>
<td>800</td>
<td>6,326</td>
<td>13,175</td>
<td>42,424</td>
<td></td>
</tr>
</tbody>
</table>