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## Encroachment and entrenchment of agro-neoliberalism in the Centre-West of Brazil

*Abstract: From being a net food importer in recent decades, Brazil is now considered a successful case of agricultural production and export. However, this image of triumph and efficiency helps to conceal growing socio-ecological impacts and mounting uneasiness. The complex and contradictory landscape of contemporary Brazilian agribusiness represent a relevant example of the advance of agro-neoliberalism, which is both an economic and technological process of agriculture modernization and intensification, in accordance to liberalizing pressures, and also a politico-ecological phenomenon centred on market-based solutions to old and new production, innovation and justification questions. Based on qualitative research and three fieldwork campaigns, the article discusses recent politico-economic adjustments particularly in the State of Mato Grosso, in the Centre-West region, which is fast becoming the main area of agribusiness activity in the country. Empirical results demonstrate that agro-neoliberalism has been promoted through inventive public-private associations not for the purpose of domestic food security, but primarily for capital accumulation and to support sectoral interests and macro-economic strategies.*

**Keywords:** agribusiness, agriculture, Brazil, Mato Grosso, agro-neoliberalism, soybean, ecological modernization

### 1. Neoliberalizing tendencies in Brazil

Commercial agriculture in Brazil is increasingly seen by the national population and by the international business community as a case of great success. Until the 1980s, the country was a net food importer, but due to a combination of policy instruments, favourable commodity prices, improved production techniques and expansion to new farming areas, agriculture has become one of the strategic export sectors and is now considered an island of prosperity amidst immense inefficiency and comparative lack of economic achievement. Brazil has consolidated its position as a global leader, and even as a ‘model’ of commercial, integrated crop management (Collier, 2008). The impressive gains in agriculture production and productivity are also magnified by serious mistakes in other sectoral policies (notably, the progressive deindustrialization and re-primarization of the national economy). Nonetheless, the image of success and efficiency helps to conceal growing socio-ecological impacts and uneasiness in old and new production areas. The complex, and often contradictory, results of contemporary Brazilian agriculture represents a relevant example of the intricate relationship between market-based regulatory tendencies – commonly and generically described as the economic, political and social process of ‘neoliberalism’ – and the modernization and intensification of agri-food systems. The Brazilian countryside certainly offered fertile ground for the introduction and

consolidation of rural economic activities associated with liberalizing state reforms, the influence of globalized markets and the decisive role of transnational corporations.

In that context, this article will contribute towards the interpretation of the unique features of the neoliberalization of agriculture in Brazil – defined below as the historically and geographically contingent process of ‘agro-neoliberalism’ – focusing on the idiosyncratic synergies between developmentalist and neoliberal agendas, particularly in new leading agribusiness areas, as in the case of the State of Mato Grosso. Different from what some analysts mistakenly concluded, neoliberalism did not end with the 2008 financial crisis, but remains constitutively uneven, institutionally hybrid and chronically unstable (Brenner et al., 2012). However, it is not possible to make sense of current neoliberalizing trends in Brazil without taking into account past legacies and the national political context. Its national agriculture has famously evolved, since colonial times, through the strategic association of export crops and staple food produced by subsistence farming (Moore, 2015), as a politico-economic compromise dominated by powerful rural elites in strong alliance with the apparatus of the colonial and, later, national state (Oliveira, 2007). In the first decades of the last century, modern production technologies were already being systematically transferred from the Global North (the main agriculture colleges and research centres were established in Brazil during this period), without altering the overall balance of agrarian power between large- and small-scale farmers.

Agricultural modernization and rural development received a new stimulus during the twenty-one year military dictatorship (1964-1985), with the incorporation of different forms of capital, new methods of production, developmentalist strategies and the formation of agro-industrial chains along the lines of the so-called ‘Green Revolution’ (Gonçalves Neto, 1997). Priority was given by the authoritarian governments of the time to national-developmental policies inspired by Keynesian ideas (Graziano da Silva, 1988); these policies involved fiscal incentives, subsidized credit, efficiency measures and the integration of farming and industry (Delgado, 2012). Intensive crop production was promoted by the federal government throughout the country as an ‘anti-agrarian’ reform that further concentrated land ownership (Oliveira and Stédile, 2005). It constituted a clear case of ‘accumulation by displacement’, predicated on the dispossession of small farmers and encroachment on natural vegetation (Araghi, 2009) that intentionally bypasses old demands for land and jobs (Lerche, 2013).

The transition to neoliberalizing trends in Brazil happened because of the insufficiencies of developmentalism and also in order to benefit from the new opportunities opened by market globalization. After achieving remarkable rates of production growth in the 1970s, the state-centralized mode of agricultural intensification started to show serious limitations, particularly as

Brazil was suffering from a public debt crisis, escalating rates of inflation and macroeconomic instability. The Brazilian agriculture sector endured a period of turbulence and uncertainty beginning in the mid-1980s, due to the reduction of support schemes (e.g. guaranteed prices), significantly higher interest rates and a paucity of bank loans. That prompted the transition to what is described by Campanhola and Graziano da Silva (2000) as a 'new rural model', characterized by higher levels of agro-industrial integration, more direct intervention from large corporations (including the funding of production) and multipurpose technologies. This new model was directly associated with neoliberal reforms to the state and economy during the 1990s. Events outside the agricultural sector directly affected its transition to agro-neoliberalism, in particular inflation reduction and macroeconomic stabilization policies – known as the Real Plan, launched in 1994 and maintained by President Cardoso (1995-2002) – which strengthened the national currency, the real (R\$), and facilitated agro-industrial imports, while at the same time creating circumstantial barriers to the export of Brazilian goods for most of the decade (Ioris and Ioris, 2013).

All that indicates that a serious trade imbalance, together with higher interest rates, led to a temporary reduction in agricultural profitability and a lowering of land prices in the early 1990s; nonetheless, it soon paved the way for the advancement of agro-neoliberalism as an alternative strategy for the revitalization of national agriculture. Through the affirmation of agro-neoliberalism, the Brazilian agriculture was significantly restructured and underwent a transition from policies designed for a closed economy to a more flexible and open economy (Helfand and Rezende, 2004). Production of crops for export was also encouraged by more favourable exchange rates following the 1999 devaluation of the Brazilian currency (Siqueira, 2004) and by extraordinarily favourable commodity prices in global markets during the early 2000s (Richards et al., 2012). In the end, agriculture became the most dynamic sector of the national economy, although benefited some farmers and areas more than others (Helfand and Rezende, 2004). The aggregate results have been impressive and Brazilian agribusiness (broadly defined) accounts now for approximately 25% of GDP, 35% of exports and 40% of national jobs in the country (MAPA, 2012). The main argument of this article, however, is that the claims of success by the government and the agro-industrial sector have actually served to reinforce the hegemony of agribusiness and minimize mounting tensions and contradictions. Before assessing the evolution of agro-neoliberalism in Mato Grosso, as an emblematic case study with wide-ranging ramifications, it is necessary to dedicate some conceptual attention to the advance of neoliberalism over agriculture.

## 2. Meaning and trends of agro-neoliberalism

Although references to the effects of neoliberalism on agriculture are often found in the literature, as in relation to the Brazilian case at hand, their interpretation are not trivial. A significant part of the problem is the very definition of neoliberalism. It is obviously beyond the scope of the present analysis to revisit this vast and controversial literature, but it suffices to emphasize that neoliberalism has been the prevailing regulatory response to the crisis of Keynesian capitalism since the 1970s and that it prioritizes market-based and market-oriented strategies over other possible alternatives. The practices and the discursive constructions around neoliberalism have represented a “historically specific, unevenly developed, hybrid, patterned tendency of market-disciplinary regulatory restructuring” (Brenner et al., 2010, p. 330). Neoliberalism includes a specific set of ideological tenets, schemes and policies primarily aimed to reshape socio-economy in order to regenerate and facilitate the circulation and accumulation of capital. With positive outcomes and political support, neoliberalizing policies expanded and increased in the 1990s, when it reached remote regions and insulated realms of political-economic life, including most public services, local business networks and environmental conservation (Ioris, 2013). Consequently, although some scholars say that neoliberalism is an unhelpful concept, as it seems to incorporate too many ideas and to limit the perception of internal complexities and spatial specificities, neoliberalism retains an analytical role if considered as a political-economic-cultural phenomenon and an explanatory framework to appreciate contemporary regulatory transformations (Peck, 2013). In the end, neoliberalism is both an ideology and a socially constructed process – rather than an isolated event or fully coherent plan – that has produced uneven outcomes and contradictory results around the planet.

Neoliberalism – seen as both the contemporary phase of capitalism (Moore, 2015) and as an inherently variegated ideology of critical importance across scales and regions (MacArtney, 2009) – comprises beliefs and practices centred on the idea that market efficiency is the best mechanism for regulating socio-economic relations and renovating politico-economic strategies (Schmalz and Ebenau, 2012). Despite the anti-state rhetoric, however, neoliberalizing adjustments have been conducted and promoted by the apparatus of the state. In practice, the state and the market realms, which formally operate under separate logics, have developed multiple synergies and interdependencies that are critical for implementation of neoliberalizing reforms (Harvey, 2005). In that perspective, the modernization and intensification of agriculture remain key components of modern-day capitalism (Busch and Bain, 2004) and, in particular, of the transition to novel modes of production under influence of neoliberalizing, post-Keynesian

trends (McMichael, 2009). Agri-food has become one of the most globalized sectors in the contemporary economy, as the production and consumption of its products are now truly global affairs (Bonanno and Constance, 2008). Institutional and regulatory reforms under the influence of neoliberalism have entailed complex processes ranging from adjustments of small-scale farming and local economies to the escalation of agro-industrial production, the monopolization of trade (upstream and downstream to the farm gate and the household), the widespread financialization of agriculture (characterized by the entry of new financial actors and novel instruments, such as future markets and agriculture derivatives; see more below) and the subjugation of public policies to strong market pressures (Clapp and Fuchs, 2009).

The neoliberalization of agriculture has become the embodiment of aggressive processes of commodity export, land concentration (or re-concentration) and marginalization (Murray, 2006), which are an integral part of a wider class-based project informed by the imperatives of flexible capital accumulation, globalized markets and innovative public-private interaction (Duménil and Lévy, 2004). The encroachment of neoliberalism upon agriculture is essentially a politicized, contingent and contested phenomenon that has deepened the contradictions of capitalism across time and space (Araghi, 2003). Neoliberal agricultural policies have produced uneven, generally negative results for the agricultural sectors of poor countries, exacerbating social differences and marginalizing many social groups (Oya, 2005). That is aggravated by the agenda of international development, led by multilateral agencies such as the World Bank, which has aimed to reconcile agricultural economic growth and the reduction of rural poverty with incentives and institutional adjustments aimed to increase land productivity and the promotion of free trade and boost land markets (Pereira, 2015). Neoliberalized agri-food systems are focused on short-term economic gains and the legitimization of political hegemonies at the expense of issues of nourishment and health (Goodman and Watts, 1997). In effect, the influence of neoliberalism on agriculture is a highly unique, place-specific phenomenon that combines free-market pressures and flexibilization approaches with renewed forms of protectionism, trade barriers and labour movement restrictions (Potter and Tilzey, 2005) that have not alleviated hunger and malnutrition problems, even in wealthy countries (Richards et al., 2016).

The interpenetrations between agriculture and neoliberalizing reforms, therefore, require specific theory and proper conceptualization. For instance, making use of the concept of food regime – which represent temporal and spatial fixes of capital accumulation trends within the long-term political economy of food – Pechlaner and Otero (2008) refer to the emerging ‘neoliberal food regime’ as the convergence of two powerful dynamics, namely, national

agriculture reorganized according to free trade and other supranational agreements and the adoption of agricultural biotechnologies. McMichael (2009) similarly describes the formation of the 'corporate food regime' that results from the influential role of corporations and institutional adjustments in the configuration of the apparatus and market-friendly state policies. In a study dedicated to the Brazilian experience, Motta (2016) further theorizes that the current food regime is fundamentally based on biotechnology, corporate control and neoliberal globalism. Moreover, the emphasis of the neoliberal or corporate food regime should not be on the technology itself, but on the fact that such technologies are being developed primarily by, and for the benefit of, transnational private seed and agro-chemical corporations. The crux here is this shift from public-led hybrid-seed technologies to private-led transgenic seed technologies (for example, Monsanto, Syngenta, Pioneer's GM soy seeds) that pervade the new food regime. The concept of food regime certainly helps to understand overarching and contradictory forces shaping the agri-food sector in different phases of the capitalist economy. However, it is highly questionable whether it could inform the interpretation of local interactions and national or sub-national trends. Goodman and Watts (1994) are critical of the ability of generalizations such as the concept of 'food regime' and recommend that agrarian questions receive an appropriate social theory, emphasizing, for example, the territoriality of the agro-food complex and the simultaneous territorialization and deterritorialization under globalizing and neoliberalizing influences.

The analysis of the impacts of neoliberalizing pressures on agri-food systems seems to demand a more sophisticated analytical framework able to connect practices and changes at the level of localities and farms with wider national and international forces. Considering that neoliberalism has ramifications at different scales (from the global to the local and personal scales) and brings together public and private sectors, its scrutiny also requires a tailored dialogue between structural and post-structural approaches, as well as politico-economic and ethnographic procedures (Peck, 2013). Instead of only taking into account overarching food regimes, it is necessary to investigate the set of practices and trends that reinforce each other, operating at different levels, which can be described as 'agro-neoliberalism'. Agro-neoliberalism is not only an economic and technological project (Busch, 2010), but it is a politico-ecological phenomenon centred on market-based solutions to old and new production and commercialization problems. Because of the particularities of agriculture and agricultural markets, agro-neoliberalism is particularly manifested in idiosyncratic connections between national protectionism and expanding globalized markets, which have also deepened and intensified multiple mechanisms of labour and nature exploitation employed in order to

maximize exchange values. Due to growing proletarianization, new technologies and rising productivity, neoliberalism coincided with the cheapest food in world history, measured in terms of more calories with less average labour-time in the commodity system (Moore, 2015). As a result, agro-neoliberal strategies have been utilized to appease socio-political resistance through a discourse about supposed gains in terms of environmental responsibility and food security (Dibden et al., 2009).

Given the internal complexity and multiple repercussions of agro-neoliberalism, it is important to account for the material and discursive disputes around the neoliberalization of agriculture and multiple forms of resistance. So far, it is common to find examples in the specialized literature that fail to encapsulate the more comprehensive, politicized and dynamic basis of agro-neoliberalism. For instance, in an otherwise interesting article Hollander (2004) focuses on 'agriculture trade liberalization', while in effect agro-neoliberalism goes much beyond commerce and includes politico-ideological dynamics and influences economic production and social reproduction 'all the way down'. The expansion of agro-neoliberalism, after the transition period in the early 1990s, was primarily based on calls for market competition and promises of higher productivity and economic efficiency needed to reduce the costs of agri-food goods, while it has also contributed to reinforcing the 'holiness' of private properties and to creating entirely new markets, including the commodification of ecosystems, water and biodiversity. Various types of power work together to ensure the advance of agro-neoliberalism, from instrumental and discursive rationality to structural manifestations of political control deciding what is produced and what sort of food is consumed (Newell, 2009).

Nonetheless, even with impressive levels of production and trade, agro-neoliberal advocates have not been able to conceal uncomfortable questions, for example, about impacts on family farming, the grabbing of land and other natural resources, growing risks and legitimacy gaps (Borras et al., 2012). As a result, social movements and critical groups have established international protest networks, such as La Vía Campesina, that attempt to draw attention to renewed mechanisms of exclusion and exploitation (Desmarais et al., 2014). At the same time, however, the hegemony and the appeal of agro-neoliberalism have often undermined grassroots reactions and opposing viewpoints; in practice, it is common that the opposition to agro-neoliberalism ends up replicating the very things they are purported to resist, as in the case of the tacit acceptance of commodification and private property rights. It means that the powerful influence of agro-neoliberalism has influenced the very pursuit of technological and socio-economic alternatives to neoliberalization, as in the case of agro-ecological farming and organic

production, which are increasingly captured and contained within the realm of corporate-friendly institutions (Guthman, 2007).

An important, and apparently paradoxical, aspect of this debate is the fact that the central promoter of agro-neoliberalism, despite all the rhetoric of free market rationality, continues to be the nation state, but often operating through new partnerships with the private sector and through multilateral organizations, such as the WTO, Bretton Woods institutions and regional blocks (e.g. Mercosul, European Union, etc.). The neoliberalized apparatus of the state strives to both address the insufficiencies of previous developmentalist policies and to forge a more market-friendly institutional context, what is commonly described as a movement from 'government' to 'governance' characterized by more flexible associations between public and private agents (Marsden, 2004). In practice, governments with distinct neoliberal facades often make use of direct interventions in market forces and never dish out fiscal or non-tariff restrictions. A state in charge of agro-neoliberalism needs to be understood not as an isolated entity above society, but as an inherent locus of power that emerges from social and socio-ecological interactions and class-based compromises (Ioris, 2014). Because of that, public policies and regulatory approaches have been under the strong influence of the transnational corporate sector, which systematically tries to both capture new markets and to organize agriculture production and commercialization (McMichael, 2000). On the one hand, the apparatus of the state remains in control of market re-regulation, knowledge production, organization of health and labour, trade agreements and monetary policies, protection against market and agro-climatic risks, the promotion of food-security, etc. On the other hand, agro-neoliberalism entails a strong influence by the private sector and particularly by corporations, beyond their mere market share and through complex networks and well-crafted discourses (Clapp and Fuchs, 2009).

Returning to the Brazilian experience, the speedy recovery of agribusiness in the 1990s followed the agro-neoliberal recipe and entailed a distinctive combination of public and private measures (Petras and Veltmeyer, 2003). It should be noted that, due to promotional campaigns and assertive public policies, the term 'agribusiness' has a particularly positive, and strategic, meaning in Brazil, where it is commonly used in reference to large plantation farms (and, to a lesser extent, in reference to food processing and trading companies typically from the USA). Unlike other economic sectors (such as industrial production and the retail market), neoliberal agribusiness is considered an island of prosperity and economic dynamism, and is currently claimed to be the "main business of Brazil" (Furtado, 2002, p. 203) with significant impact both nationally and globally (Needell, 2015). More importantly, although the expansion of agribusiness

has proved to be central to Brazil's participation in globalized markets, its expansion has revealed a peculiar amalgamation of tradition and (conservative) modernity (Graziano da Silva, 1998), evolving through new social orders and old political structures and vividly present in the practices of influential landowners and in the discourse of their representatives in the National Congress (Bruno, 2009). That is related to the observation by Busch (2014) that neoliberalism is mythical, as it is ultimately based on myths about state and market, even though its power and disruptive impacts are real. The Brazilian state has certainly remained firmly in charge of rural development (Schneider, 2010), but at the same time forged close partnerships with an ever-stronger private agribusiness sector. Since then, both transnational corporations (Monsanto, John Deere, ADM, Bunge, Cargill, Dreyfus, El Tejar, etc.) and newly transnational Brazilian companies (Amaggi, BR Foods, JBS, Marfrig, etc.) have played an increasingly decisive role in terms of policy planning and efforts to grow business. Likewise, Brazil sustained a fight against protectionism in the WTO as part of its attempt to further liberalize global markets and preserve the interests of its export-driven agribusiness sector (Hopewell, 2013).

Interestingly, the centre-left, neo-developmental administrations of the Workers' Party (PT) between 2003 and 2016 not only maintained but even strengthened agro-neoliberalizing policies in a tacit movement to secure political recognition and maintain economic trends. Agro-neoliberalism became, paradoxically, more deeply entrenched and represented a dialectical return to some of the state-led policies of the military governments. Because of the favourable prices of in global commodity markets, the need to maintain macroeconomic stability through commodity exports and the bargaining power of the agribusiness sector, the leftist governments showed no appetite to reduce export-oriented agriculture policies (Machado, 2009). The strategic role of agro-neoliberalism during the PT administrations demonstrate the false paradox between state-support (i.e. supposedly non-neoliberal governance) and the expansion of export-oriented agribusiness (i.e. supposedly something more closely associated with the neoliberal stereotype). Neoliberal agribusiness was enhanced by supplementary rural credit offered by official banks (with annual interest rates of around 5%, significantly lower than the standard rates offered by commercial banks). As a somewhat surprising, but integral, element of agro-neoliberalism, public credit increased from R\$ 15 billion per year in average during the 1990s (under openly neoliberal administrations) to R\$ 133 billion in 2013 and R\$ 156 in 2014 when PT was in office (O Estado de São Paulo, 2014). Nonetheless, such public funding was overwhelmingly directed to the agribusiness sector, despite the discourse that aims to please both agribusiness and small-scale farming (e.g. for the 2013/14 harvest, R\$ 115 billion were invested in corporate agriculture and R\$ 18 billion in small-scale farming; note that much of the investment in the latter also supports

the purchase of machinery to modernize production and acts as a stimulus for the agro-industrial sector). In practice, the sustained claims of the success of agro-neoliberalism have paved the way for the consolidation of the hegemony of agribusiness in the country, as a highly idiosyncratic phenomenon that evolved through numerous and innovative associations between the state apparatus and the national and international private sector. Those developments in the main soybean producing state, Mato Grosso, will be analysed below, after a brief description of the methodological basis of the research.

### **3. Research project and methodological approach**

The overarching aim of the research was to evaluate how the neoliberalization of agriculture unfolded in Brazil since the 1990s and to what extent the transition to agro-neoliberalism in Mato Grosso retained and adapted elements of the developmentalist past. The neoliberalization and intensification of agribusiness in Brazil is considered an entry point into the politicized geographies of globalized agri-food and into the complexity of agro-neoliberalism at national and sub-national levels. What follows in the next pages is a space-sensitive assessment of social relations and socio-economic trends across different scales, which, according to Callinicos (2007), should concentrate on the main dimensions of power, especially economic activity, ideologies and various patterns of political domination. The study particularly considered the emblematic situation in Mato Grosso, in the Centre-West region, which since the 1990s has become one of the main hubs of agro-neoliberalism in the world; millions of hectares of soybean, cotton and maize, as well as pastures, have replaced massive state areas previously covered by *cerrado* [savannah] and forest ecosystems (approximately seven million hectares of cropland and 22 million hectares of pasture in 2012/13, as mapped by Cohn et al., 2016). From being a region with relatively low levels of isolated economic activity, Mato Grosso is now at the core of national economic life and plays a key role in Brazilian exports and global agri-food markets (the state is responsible for around 9% of global soybean production, that is, around 29 million tons out of 320 million tons produced in 2014/15, according to IMEA, 2016; USDA, 2016).

The discussion is based on three fieldwork campaigns (with around one month each) conducted between 2013 and 2015 and that covered the three main agribusiness production centres: Upper Teles Pires (in and around Sorriso), Chapada dos Parecis (in and around Campo Novo) and the Southeast of Mato Grosso (in and around Rondonópolis). The research effort comprised repeated visits to cropping areas and plantation farms, private companies, research

centres (such as the regional unit of Embrapa, the state-owned Brazilian Agricultural Research Corporation), indigenous and small-scale farming communities and attendance at public meetings. In addition, 8 semi-structured interviews carried out in the city of São Paulo (where the representatives of the main agribusiness sector entities, social movements and corporations are based) and 21 in the State of Mato Grosso (in the municipalities of Cuiabá [the state capital], Rondonópolis, Jaciara, Campo Novo dos Parecis, Sinop, Cláudia, Porto dos Gaúchos, Lucas do Rio Verde, Sorriso and Tapurah). Two sets of interview questions were prepared, one for national players in São Paulo and one for farmers and local authorities in Mato Grosso (all participants in those two broad cluster of social groups were asked similar questions about the process of change, about public policies and the negotiation of conflicts, and about impacts and future trends, although the wording of the questions differed according to the national or regional geographical focus).

With the help of local academics at the universities UFMT and UNEMAT, interviewees and informants were identified, initial contacts were set up, and the research then followed a snowball approach. With the mapping of sectors and organizations, their discourse and stated aims, it was possible to compare intra- and inter-group differences and the range of alliances or disputes (ranging from those strongly against to others fiercely in favour of the prevailing agri-food system among agribusiness farmers, small-scale farmers, urban population, agro-industrial entrepreneurs, policy-makers and politicians, representative agents, and the general population). Semi-structured interviews were complemented with analysis of documents, statistics, websites, leaflets, presentations and newspaper articles found in university libraries and in the archives of public agencies and private entities. Interviews and other qualitative material were transcribed, coded and assessed in Portuguese (only the extracts reproduced in this paper were translated into English); empirical data were analyzed searching for evidences of the configuration and advance of agro-neoliberalism, rhetorical and material manifestations of power relations, and signs of problems, tensions and contradictions. Although Mato Grosso has been transformed by the expansion and gradual consolidation of agribusiness in recent decades, it remains an area under constant socio-spatial transformation and its experience directly influences the expansion of agro-neoliberalism to other northern Brazilian states (as in the case of the MATOPIBA region).<sup>1</sup> It is to this contentious, ongoing experience in South America that we now turn.

#### **4. Mato Grosso: Place-specific dynamics of agro-neoliberalism**

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<sup>1</sup> MATOPIBA is the name of the region formed by the State of Tocantins and some parts of the states of Maranhão, Piauí and Bahia.

The reconfiguration of the patterns of agricultural production in Mato Grosso constitutes an emblematic example of the articulation of public and private agendas that shape agro-neoliberalism. The State of Mato Grosso (henceforth 'MT'), in the hinterland of Brazil, is one of the most active areas of agricultural production for export in the world today, representing the culmination of the rural frontier fostered by the government over the past few decades. In the post-World War II years, MT's state government sold large plots of relatively cheap land (typically around 200,000 hectares) in order to secure revenues to run the public sector and to compensate for the limited financial support received from the federal authorities (Moreno, 2007). The agrarian transition took a new turn during the military dictatorship, which intensified the occupation of new areas in MT through the construction of roads (e.g. the motorways BR-163 and BR-364), warehouses and other related infrastructure. Direct federal interventions prompted a number of colonization projects in the 1970s and 1980s, which attracted thousands of small farmers and landless labourers from the south and northeast of Brazil. The areas used for colonization were previously held as semi-collective property by small-scale farmers or occupied by nomadic indigenous tribes. Yet, the official discourse defined these locations as 'no man's land' or 'empty territory' waiting to be explored (Mueller, 2012).

Despite the enthusiasm of the newcomers, the first two decades of the new agriculture frontier could be hardly considered a success. On the contrary, farmers struggled to produce due to the lack of adapted technology, insufficient preparation for different agro-ecological conditions, difficulty selling their products and erratic government support (Barrozo, 2010). Technical and socio-ecological barriers faced by the new farmers coincided with the national economic crisis of the 1980s, when the government ran out of cash and defaulted on its payments. Many had to leave MT, either returning to their original home states or moving further into the Amazon region. The late 1980s and early 1990s was a period fraught with turbulence and uncertainty about the future of the newly established production areas. Nonetheless, agriculture in MT not only managed to recover but also expand and reinvent itself due to the introduction of agro-neoliberal policies, including trade liberalization, market deregulation, stabilization of the national currency and reduction of the credit offered by publicly-owned banks (Helfand and Rezende, 2004). Figure 1 shows, for instance, that MT has been the main producer of soybean in Brazil since 1999, which is the most concrete evidence of the successful introduction and expansion of agro-neoliberalism, both in terms of growing production and the affirmation of social and economic relations shaped by the neoliberalizing ideology. Interestingly, the relentless increase of soybean production in Mato Grosso was initially

underestimated in most public and private projections, which did not anticipate the measures taken to overcome technical, economic and socio-political difficulties (Warnken, 2000).

[Figure 1 – about here]

The celebrated success of agricultural recovery in MT is the result of a convergence of political determination in the farming sector, the renewed interest of transnational corporations in the region, favourable commodity prices and, critically, the growing macro-economic importance of crop exports for the balance of trade. Crucially, the encroachment and entrenchment of agro-neoliberalism in MT has direct synergies with the broader neo-developmental politics and agenda of the Brazilian federal government from 2003 to 2016 (i.e. during the PT administrations mentioned above). In that context, agribusiness farmers in MT have been eager to capitalize on their contribution for the success of the developmentalist (and clearly populist) agenda and quick to describe their activity as the ‘Brazil that is doing well’ [*Brazil que dá certo*], an idea that has been reinforced by government rhetoric and mass media coverage. Expressions such as the ‘Brazil that is doing well’ end up working as a totalising narrative that is repeatedly used by politicians and agribusiness groups even to explain such phenomena as the surprising victories of the small football team Luverdense, from the MT city of Lucas do Rio Verde, in a national football championship in 2013 (Terra, 2013). According to the state association of crop producers, in “Mato Grosso, soybeans are synonymous with technology. Mato Grosso producers are renowned for using the most up-to-date technology, from planting to harvesting crops” (Aprosoja-MT n/d, p. 22).<sup>2</sup> Also during one of our fieldwork studies (June, 2014), the most influential Brazilian magazine, *Veja*, was conducting a countrywide trip to visit the locations identified as undisputed examples of economic achievement, which necessarily included agribusiness clusters in MT.<sup>3</sup>

All that corroborates the observation of McMichael (2000) that the neoliberalization of agriculture attempts to legitimize global integration through the mobilization of the historic identification of agriculture with specific places and national processes. In the case of MT, agribusiness and the efficiency of wealthy farmers have not only been ‘naturalized’ (Wolford, 2008), but it became necessary and indeed exemplary of the proclaimed triumph of developmentalist policies intermingled with neoliberalism. An intriguing aspect of the ideological

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<sup>2</sup> Aprosoja-MT was established in 2005 at a moment when the costs of production had temporarily increased and farmers were dealing with losses caused by climatic adversities.

<sup>3</sup> More information, maps and pictures of the VEJA expedition at <http://veja.abril.com.br/tecnologia/expedicao-veja-ajude-a-revelar-o-brasil-que-da-certo> (last accessed 23 Oct 2016).

construct of the success of agro-neoliberalism is a tendency to systematically blame the government for both large and small adversities, while attribute most of the success to the ‘bravery’ of the private sector (Souza, 2013). Despite the fact that agribusiness is deep in the pockets of transnational corporations – which finance production and acquire most of the goods produced – farmers paradoxically call on the state to correct market failures and, in bad years, to provide bailout funds (Peine, 2010). Farmers tend to accept the legitimacy of corporations and focus their criticism on the state for excessive social and environmental regulation or for its inability to understand their needs. A large-scale farmer argued in an interview that:

I have a good interaction with the ‘*tradings*’ [trans-national corporations], they help with inputs and in some years with credit, but it is expensive. But we lack viable options, we can’t really diversify. (...) In the end, the government is always guilty, because they pay little attention to our problems. (Interview in Sorriso, Dec. 2014)

Related to that, agribusiness farmers have repeatedly attacked the federal government for insufficient investment in roads and, in particular, exerted pressure for privatization. As a result, 851 kilometres of the federal motorway BR-163 (which crosses the main production areas in MT) were transferred in 2013 to a private operator (Odebrecht, a company heavily involved in corruption scandals), following the public-private collaborative strategy of President Dilma’s administration (Cioccarri, 2015).

Nonetheless, although farmers frequently complain about the price of transporting grains to the international ports in the southeast of Brazil (around R\$ 330 or US\$ 140/ton), high transportation costs have not affected profitability or the perennial search for new, more distant production areas.<sup>4</sup> One main reason for this is that logistical difficulties have been overcome with inexpensive land (at least during the colonization period), abundant natural resources and cheap labour (it should be noted that even though agribusiness farms pay higher median wages than other comparable economic sectors, the labour-to-capital ratio is markedly low). It can be observed at the bottom of Table 1 that the rate of cropland area per employee increased significantly between 1970 and 2006. Because of heavy machinery, it is now possible to cultivate very large tracts of land (many thousands of hectares) with a handful of permanent and temporary workers. This is obviously part of the extraction of surplus value, and mitigates the increasing tendency to acquire capital in the form of additional farmland.

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<sup>4</sup> Since April 2014, fluvial ports in the Amazon have become another viable alternative for the export of soybean coming from Mato Grosso and other states.

[Table 1 – about here]

Labour accounts for less than 3.0% of agricultural production costs in MT, whilst seed, fertilizer and agro-chemicals – generally sold by transnational companies – represent more than half of the total costs (as presented in Table 2, which covers a key moment of the consolidation of agro-neoliberalism in Brazil). This tendency to increase efficiency and overexploit the workforce is coherent with neoliberal agri-food attempts to produce more and more food, energy and raw materials using less and less labour (Moore, 2010). A complex system is in place here, where continuity and change operate at different scales – farm, state and nation – and combine old patterns of socio-ecological exploitation with modern production and justification approaches (Ioris, 2016).

[Table 2 – about here]

On the one hand, continuity is related to the concentration of agribusiness in the hands of MT's large proprietors. According to Werner (2011), 3.35% of landowners control 61.57% of the land (in many cases without adequate land deeds) while small-scale farmers only own 6.86% (the national average is 33.92%). Agrarian inequalities only exacerbate tensions relating to the ethnic origins of different groups of farmers. While the symbolic component of agribusiness is praised by political and economic leaders (most of whom have German and Italian heritage) as the belated redemption of the region from a past of isolation and backwardness maintained by a (non-white) regional population, there is evidence of racism, escalating hostilities and harassment of small-scale farmers and landless groups seeking to legalize their land (Barros and Korpalski, 2012). In an interview it was affirmed that:

We had a long struggle to avoid having our piece of land in this region dominated by agribusiness. We only live because we are stubborn, we occupy space. Agribusiness has a lot of support [*apoio*], but we only have constraints [*'arroio'*]. (Interview with a small-scale farmer in Cláudia, Dec. 2014)

Based on statements like that, it becomes clear that in new areas of agro-neoliberal activity, as in the case of Mato Grosso, neoliberalized agribusiness makes evident its most profound contradictions and, ultimately, failures. It constitutes a favourable arena for rehearsing the flexible mechanisms of accumulation and regulation, while at the same time ethical and legal

safeguards tend to be suspended or overlooked due to the alleged need to occupy the ‘wild’ territory and then sustain the production of the most marketable and profitable goods. Martins (2009) even argues that Mato Grosso is a human frontier shaped by the false dichotomy between civilization and non-civilization.<sup>5</sup>

On the other hand, the agribusiness sector has demonstrated a great ability to dilute and deny its responsibility for mounting negative socio-ecological impacts. While neoliberalized agriculture maximizes the use of fossil fuels, biotechnology and agro-chemicals, it also necessarily has to respond to environmental concerns and customer expectations (Otero, 2012). In MT the response has come in the form of a belated fondness for claims of sustainability and ecological modernization. The association of soybean producers published a bilingual booklet, *On the Road to Sustainability*, which emphasizes the environmental consciousness of soybean producers, citing in particular the concentration of production in savannah areas (rather than in the Amazon forest) and the adoption of integrated technologies. According to the association, “there is a strong correlation between soybean yield and macro socio-environmental indicators, such as the Human Development Index (HDI). The ten cities with the largest soybean production have rates above the state and the country averages” (Aprosoja-MT, n/d, p. 11). In our interviews, the association’s spokespersons make frequent reference to the ‘green passport’ of agribusiness in MT because of the adoption, among other measures, of no-tillage technology and high productivity technologies (supposedly preventing the opening of new production areas). In this way, agribusiness in MT has tried to reinvent itself as an environmentally sensitive sector, deeply concerned about the impact of its activity on the wellbeing of wider society.

However, although agribusiness farmers are proud to point out that MT still maintains large areas of original vegetation, this tends to be because these areas are remote and would not be cost-effective locations for soybean production. Every year this frontier of cost-effectiveness moves, with technological improvements and increases in land prices in the consolidated zones, leading to the constant opening of new production areas. The situation embodies the Jevons Paradox (Ceddia et al., 2013) where use of a resource becomes increasingly efficient, but increasing demand for the same resource leads to a greater rate of consumption: higher agricultural productivity in MT has increased, rather than decreased, rural land use. Despite constant increases in the use of resources – land, water and energy in particular – concepts like

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<sup>5</sup> Mato Grosso was the state with the second highest level of rural violence in Brazil in 2014 (a trend that has persisted for many years), with 30 serious incidents involving 1,618 families, as well as six cases of water-related conflicts (CPT, 2015).

sustainability and flexible regulation have been used by sector representatives to confer an image of righteousness on modern, intensive agriculture practices:

Our agriculture cannot be considered anything but sustainable. Sustainability is profitable: we don't do things to gain foreign recognition, but only because of the economic results. (...) We do it despite lots of production difficulties [that we face]: too much regulation, the [legal] requirement to set aside part of our property uncultivated [between 20%-50%, depending on the location]... But this again demonstrates that we are sustainable. (Interview with a director of the soybean association (Aprosoja-MT), Cuiabá, Jun 2013)

The surprising 'environmental turn' of the agribusiness sector has been accompanied by a search for national and, crucially, international recognition. The agenda of ecological modernization received unexpected support from key representatives of the agribusiness sector, including the former governor of MT Blairo Maggi who was in office between 2003 and 2010. Maggi was elected to the federal senate in 2010 and eventually replaced Senator Abreu in May 2016 as the Agriculture Minister of the new Michel Temer government.<sup>6</sup> Leader of a family business established by his father a few decades earlier, when the clan moved from the south of Brazil to Mato Grosso, Maggi is the owner of one of the largest soybean companies in the world (responsible for around 5% of the total amount of soybean produced in the country, and increasingly involved in large public infrastructure, transnational trade and financial services). According to various interviews in May 2014, during his time as governor, Maggi repeatedly claimed to be running the state administration as a business enterprise, and played a key role in the consolidation of agribusiness (including new legislation instituting the transfer of public funds to support Aprosoja-MT, making it the strongest and most active representation of soybean producers in the country). Nonetheless, in a talk at a workshop in the Wilson Center in Washington DC on 04 December 2008, the then governor provided a textbook defence of Mato Grosso's ecological prerogatives along the lines of ecological modernization. Maggi used his training as an agronomist to explain how technology helps to protect the environment. Although he was awarded the sarcastic 'Golden Chainsaw' trophy by Greenpeace in 2005, as the Brazilian who contributed most to the destruction of the Amazon rainforest, the governor curiously talked about the risks of anthropogenic climate change and the need to act "not because of the

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<sup>6</sup> Blairo Maggi was also under criminal investigation by the federal police (during our fieldwork in 2014) due to suspicions of using illegal sources to fund his senate election campaign in 2010.

environmentalists, but because the scientists are now telling us the urgency and relevance of such issues”.

The most evocative part of Maggi’s intervention in Washington was his passionate defence of market-friendly solutions, especially the role of payment for ecosystem services, carbons markets and the Reducing Emissions from Deforestation and Forest Degradation (REDD) scheme advanced by the United Nations. “We must find a way to ensure that forests are more valuable standing than destroyed”, said Maggi (Wilson Center, 2009, p. 2). Governor Maggi stressed the urgency of creating such a mechanism: “Global warming has been scientifically proven; we no longer have the right to ignore climate change”. The appropriation of environmental claims to serve business and political interests is also evident in Maggi’s trajectory as a congressman. After becoming senator in 2010, Maggi was one of the main advocates for the reform of the Forest Code. The reform was approved in 2012 after a lengthy controversy, and specific deregulations demanded by the agribusiness sector were defined in 2014. The concessions to the farming sector included a period for the farmers to regularize past deforestation, avoid fines and maintain agro-neoliberal tendencies. The aim of the reform was to flexibilize the previous requirement to maintain a certain percentage of the natural vegetation on rural land, but because of agribusiness lobby it is now possible to compensate for deforestation on a rural property with another forested area elsewhere, which in practice ‘creates’ more cropland. The “rationalization” of socio-environmental regulation has followed specific economic interests and the logic of agro-neoliberal policies. It reveals the ‘agro’ being transformed and reshaped according to a powerful business rationality, which, as argued by Oliveira (2003), reproduces and invigorates outdated features from previous stages of the long trajectory of the Brazilian capitalism.

Considering the encroachment of agro-neoliberalism in Mato Grosso, it is possible to identify the convergence of new public-private alliances, techno-economic modernization and the reinvention of developmentalist discourses by left-wing, populist administrations in order to justify public policies and prevent opposition. Those new approaches partially replaced previous forms of collaboration more directly dependent on technology and leadership of the state apparatus. An interesting demonstration of legitimization strategies is the appropriation of environmental goals by the agribusiness sector, as in the case of the Low Carbon Agriculture Programme (*Programa ABC*), launched by the federal government in 2010 to fund the recovery of degraded pastures, cattle-crop integration, forest plantations, etc. For instance, most of the new technologies are transferred to the farmers directly from corporations or by independent research institutes set up by the farmers themselves (as in the case of the MT Foundation

[*Fundação MT*] established in Mato Grosso in 1993 and that to some extent substituted technologies produced by universities and Embrapa). Another example is the significant proportion of rural credit that has been provided by transnational corporations and by a massive increase in bank-like transactions, instead of the conventional forms of subsidised rural credit provided by state-owned banks. Since the early 2000s, new, or improved, financial instruments have been available, such as self-financing, financial cooperatives, input supplier companies and trading companies, filling the gap created by the inadequacies of previous federal government-administered schemes (Serigati, 2013).

There is a growing process of financialization taking place in Brazil, which is not simply characterized by increased commercial exchanges (as in the case of exports to China), but by new financial actors and novel financing mechanisms entering the agribusiness sector. A notable illustration of the widespread financialization of neoliberalized agriculture in Brazil was the 2004 legislation that created the Agribusiness Receivables Certificate (CRA), among other titles traded on the São Paulo stock exchange. The CRA is a registered credit instrument which links a promise of future payment in cash to the debt claim issued by the securitization company (MAPA, 2010). By 2013, the amount of traded CRAs reached R\$ 1.2 billion (around US\$ 550 million), but this is expected to expand 30 times more over the next few years (ISTOÉ Dinheiro, 2013). Related to those new instruments is the fact that most financing for seeds, agro-chemicals, and machinery no longer comes from public banks but from transnational companies themselves (Fairbairn, 2014). It is also increasingly common that large-scale farm-management corporations become the primary vehicle for financial capital (including new entrants into agribusiness production, such as hedge funds, pension funds, etc.) to engage in farmland investments and agro-industrial production. In several parts of South America, as in Argentina, Brazil and Paraguay, there are now ‘pools de *siembra*’ [sowing pools], which are transitory enterprises that join investors together to finance grain production; each pool forms rent contracts with a large number of landowners – generally located in different regions in order to diversify risks – and then assumes management of the crop production enterprise (Oliveira and Hecht, 2016).

Fuchs et al. (2013) argue that neoliberalized agribusiness logically entails, among other adjustments, the increasing use of financial instruments and the pervasive financialization of the agri-food sector. In the case of Brazil, the increased financialization of crop production and distribution affected not only the relations of production, but directly transformed the nature and destination of what is produced. Government investments in agriculture-related infrastructure and technological development have become more selective, targeting primarily biofuel and export commodities (Bernardes, 1996). Related to policy adjustments, there has been

a partial replacement of the previous North-South trade priority (especially with the European Union) with a growing South-South interconnection, particularly between Brazil and Asia (FIESP, 2008). In particular, commercial exchanges between Brazil and China reached US\$ 77 billion in 2011 (Brazil exported goods worth US\$ 44.3 billion and imported goods worth US\$ 32.8 billion), with agriculture-based exchanges growing from US\$ 1.7 billion in 2003 to US\$ 14.6 billion in 2011, according to MAPA (2012). The Economist (2010) even considers Brazil the first tropical food giant, mainly because of the influence of Chinese demand. Soybean is by far the most important agricultural commodity in Brazil and the 'soybean complex' accounts for 80% of agricultural exports to China. Soybean is not only an emblematic symbol of Brazilian agro-neoliberal modernity and of the success of production reorganization; soybean production also involves significant geopolitical repercussions in terms of Brazil's influence and the dissemination of the financialization model (including the growing importance of agribusiness exports for sustaining and transforming markets and relations), especially in Africa and South America (Oliveira, 2016). In the section, the regional experience of Mato Grosso agribusiness will be related with the wider Brazilian context.

## **5. Unpacking Brazilian agro-neoliberalism**

Reflecting upon the expansion and consolidation of agro-neoliberalism in Mato Grosso, one should ask about the overall impacts and repercussions of this particular experience for Brazilian and global agri-food. In synthetic terms, those could be summarized in four basic points. First, despite positive results in terms of increased production (particularly of soybean and a few other crops, such as maize, cotton and sugarcane), financing and commercialization, the success of neoliberalized agribusiness in states like Mato Grosso has left the country dangerously over-reliant on primary commodities and on the appetites of distant markets. On the one hand, Brazil has become the main global exporter of soybean (contributing 44 million of the 105.1 million tons traded in 2013) and the soybean complex continues to expand unabated (8.2% in 2011/2012 and 18.5% in 2012/2013, when it accounted for almost US\$ 31 billion of export revenues, according to CEPEA, 2014). On the other hand, the Brazilian economy has faced progressive deindustrialization, increased dependence on foreign investments, and rising imports of intermediate inputs and capital goods. From 2004 to 2013, manufacturing dropped from 55.0% to 38.4% of GDP, while primary production increased from 29.5% to 46.7% (MDIC, 2013). Between 2000 and 2010, export earnings from primary goods increased from 25% to 45%, while those from manufactured goods declined from 56% to 43% (Delgado, 2012).

After the 2008 global financial crisis, the dependence of the Brazilian economy on the success of agribusiness extended even further as the export of agricultural commodities became the ‘green anchor’ of the economy (Acselrad, 2012). Between 2012 and 2013, national exports fell by 0.2%, but agribusiness exports increased by 4.3%; in the same period, national imports increased by 7.4% and agribusiness imports increased only by 4.0% (CONAB, 2014). In 2014 the trade balance showed the worst performance since 1998 (a deficit of US\$ 4.036 billion in 2014, according to the database of the Ministry of Development, Industry and Foreign Trade - MDIC) with agribusiness appearing as one of the few sectors with positive foreign exchange results.

It can be seen in Table 3 that, while agribusiness grew proportionally less than the national economy, and its percentage contribution to the national economy actually decreased between 2007 and 2013, its contribution to the national surplus (in dollar terms) was critical. It should be noted that this Table incorporated data so far available for the two years (2007 and 2013) but it nonetheless gives an indication of the period before and after the government of the Workers’ Party mentioned above. Agricultural exports in 2013 reached a value of US\$ 99.97 billion (4.3% more than the previous year) with a net surplus (i.e. minus imports) of US\$ 82.91 billion (including US\$ 30.96 billion from soybean exports alone); forecasts for the next few years indicate a continuing increase along the same lines (Agroanalysis, 2014). Because the overall surplus of Brazilian trade was only US\$ 2.2 billion, without the contribution of the agribusiness sector the country would have faced a serious and embarrassing deficit. The help of agribusiness was even more impressive due to a decline of 7.5% in the average price of commodities on international markets between 2012 and 2013 (Barros et al., 2014).

[Table 3 – about here]

Second, it can be observed in Figure 2 that, while the difference between export and import values is dwindling in Brazil and even tending towards a negative result, the surplus (gross income, i.e. total exports minus total imports) produced by the agribusiness sector is positive and constantly growing. One of the most perverse consequences of the steady expansion of agribusiness surpluses is that the activity of the contemporary Brazilian state, which combines neoliberalizing priorities with elements of populism and neo-Keynesianism, itself depends on agriculture to help manage the monumental public debt (the stock of the public deficit in December 2015 was more than US\$ 1.2 trillion) and to sustain politically relevant welfare-related programmes, such as the important cash transfer scheme known as *Bolsa Família* (Valor Econômico, 2016).

[Figure 2 – about here]

Third, the positive economic results produced by new agribusiness areas, such as Mato Grosso, have served to unify the interests of rural conservative groups and renew processes of political hegemony and class domination (Bruno, 2009). It was highly symbolic of the political influence of agribusiness that President Lula started his first term in office with the ‘Zero Hunger’ programme and ended his second mandate openly defending the sector and making significant concessions on environmental legislation (Canal Rural, 2009). Because of its political significance, the agribusiness sector has actively managed to protect its interests, especially with an organized and prominent presence in the National Congress, where around one third of the senators and deputies belong to, or support, the Parliamentary Farming and Cattle Raising Front [*Frente Parlamentar da Agropecuária* – FPA]. An important initiative of the FPA is the determined attempt to remove any environmental and social regulation that could prevent the expansion of production. The number of FPA parliamentarians actually increased following the 2014 general election. One of its key members is the hard-line Senator Katia Abreu, president of the National Agriculture Confederation (Ms Abreu was re-elected in 2014 and became Minister of Agriculture in the second Dilma government from January 2015 until the removal of the president by the National Congress in May 2016).<sup>7</sup> It should be mentioned that many other MT political leaders have been very instrumental in advancing agro-neoliberalism, such as the approval of aforementioned reform of the Forest Code, and especially in bringing Maggi as Minister of Agriculture (after Abreu’s leading role in the neoliberalizing reforms).

Fourth, there have been growing tensions between global commodity chains led by Brazilian agribusinesses and social, grassroots movements that call for corporate responsibility, environmental protection, quality food and labour rights (Wilkinson, 2011). The drastic increase of grain production, notably soybean from Mato Grosso, has the negative consequence of price reduction and marginalization of smaller farmers who cannot compete. Furthermore, soybean is primarily for animal feed due to the concentration of livestock production in China and other places, in other words, it is not about “food production” as much as industrializing meat production for emergent elites (cf. Schneider, 2014). However, due to the vital role played by agribusiness in maintaining macroeconomic stability, and thanks to the political legitimization of populist governments, the sector has managed to secure increasing regulatory concessions (such as more flexible labour and forestry legislation) and its political capital has served to mitigate bad

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<sup>7</sup> Senator Kátia Abreu repeatedly stated that environmental conservation aggravates the food crisis and that, consequently, climate change deserves much less attention from government and society alike (The Guardian, 2014).

publicity generated by environmental impacts and the regressive social agenda advanced by representatives of agribusiness. Systematic campaigns orchestrated by representative entities (for instance, the Brazilian Agribusiness Association, the Brazilian Confederation of Agriculture and Livestock, and the Federation of Industries of the State of São Paulo) have tried to counter the prevalent image of large-scale farmers as perpetrators of injustice against small-scale farmers and indigenous groups and as major contributors to environmental damage in old and new production areas. The following interview extract illustrates this attempt to reinforce the economic relevance of agriculture and the justification of the social and environmental costs involved:

Agribusiness is the main sector for FIESP [Federation of Industries of the State of São Paulo], it is associated with the largest proportion of industries. And Brazil is number one in global agriculture. Of course, we are a bit concerned about the ‘soyification’ of Brazilian agribusiness, another problem that we can’t deny... and also the reduction of the industrial component of the rest of the economy. But in any case, we are really satisfied with the prices in the global markets and with the introduction of more reasonable environmental legislation in recent years, particularly the new Forest Code. (...) The main challenge now is to improve logistics, roads, ports, railways, etc. (Interview with a manager of the rural division of FIESP, São Paulo, April 2014)

All in all, Brazilian agro-neoliberalism has evolved through an intricate process of economic gain and aggressive modernization intermingled with systematic attempts to justify strategic alliances between populist authorities and market-friendly ideologies. The sector has maintained steady rates of expansion not only due to constant technological improvements (e.g. new agro-chemicals, genetically modified seeds and more sophisticated machinery and digital equipment), but also because of further land grabbing and incursion into new production areas (Borras et al., 2012). The result is a paradoxical combination of circumstantial profitability and positive results with mounting socio-ecological risks and power concentrated in the hands of corporations and rural political leaders. The Brazilian region where the controversies related to agro-neoliberalism are most evident is the State of Mato Grosso in the Centre-West region, where more than half the economy is now based on agribusiness (IMEA, 2014) and where the value of exports jumped from US\$ 254 million to US\$ 8.5 billion between 1990 and 2009 (Pereira, 2012). The intensification of agriculture in the state since the 1990s has revealed an idiosyncratic fusion of old habits and new, market-centred approaches, employed by the

agribusiness sector in an attempt to consolidate the agriculture frontier (initially opened in the 1970s). The neoliberal frontiers of agriculture in Brazil have become ‘export oriented farming areas’ with a distinctive influence of farming organizations since the 1990s, especially in terms of environmental regulation (Brannstrom, 2009). Mier y Terán (2014) rightly points out that agribusiness in Mato Grosso was never a uniform phenomenon, but has been shaped by local particularities because of the heterogeneity of migrants, farming practices, market oscillation and ecological specificities.

## 6. The advances and the prospects of agro-neoliberalism

The previous pages discussed the transition from the intensification and expansion of agriculture in the post-World War II decades to an agro-neoliberal model of agribusiness production since the 1980s. Based on the evidence from Brazil, it can be concluded that this transition evolved in the country according to some of main patterns of agro-neoliberalism, namely, new mechanisms of public-private interaction, novel forms of socio-ecological exploitation and hegemonic suppression of alternatives. The relevance of one or more of those elements of agro-neoliberalism in any given moment depends on concrete politico-economic and socio-spatial circumstances and is also contingent upon place-specific conditions. Building upon previous works that highlighted the institutional novelty (Pereira, 2015), the new forms of governance (Marsden, 2004), technological improvements and labour flexibility (Bonanno and Busch, 2015), and disputes related to the promotion of agro-neoliberalism (Cáceres, 2015), the Brazilian experience illustrates how agro-neoliberalism flourishes in a context of market-centred solutions and regulatory flexibility, but also that it demands novel forms of government support and relies on some of the oldest political traditions (e.g. aggressive manipulation of party politics, lack of transparency, deceitful claims of progress and elements of racism).

The image of success is daily reaffirmed by sector representatives, endorsed by the national government in its effort to gain political support and maintain the export revenues generated by agribusiness, and reiterated by mass media channels (like the campaign aired in June 2016 by the powerful Globo TV with the message “The agro is all, the agro is pop” [*O agro é tudo, o agro é pop*]). The various techno-economic innovations adopted by agribusiness players – including land and gene grabs, biotechnology and GMOs, dispossession of common land, financialization and administration of production by transnational corporations – are all strategies that emerge from business and political interactions, which combine old and new features of the capitalist economy. The result is a nuanced and highly contested situation that

connects, often in unexpected ways, different scales, sectors and public policies articulated around the advance of agro-neoliberalism.

Taking into account the range of achievements and failures, it is possible to verify that the true extent of agro-neoliberalism's success is highly questionable. While the neoliberal agribusiness sector has succeeded in crafting a positive image of technological and economic success, the federal government and the wider business community have become highly dependent on the export of primary commodities (to safeguard the national currency and avoid trade deficits, for example). The economic hypertrophy of agribusiness in Brazil has also resulted in a situation where rural leaders are disproportionately influential in politics, particularly in the national congress and the Ministry of Agriculture, where they attempt to advance conservative agendas and secure further concessions from the government. Agro-neoliberalism evolves not only through attempts to influence the government, but also through further modification to the structure and rationale of the state. As part of this turbulent and controversial process, new production areas are being incorporated with the employment of old and new practices of socio-environmental management and political legitimization.

It is particularly in agricultural frontier areas, such as Mato Grosso, that the rationale of agro-neoliberalism is used to combine populist and neo-developmental traditions in order to disguise mounting impacts and inequalities. Ironically, when facing criticism from other social forces in the country, the agribusiness sector reacts with a pre-established rhetoric of heroism and entrepreneurialism that, in the end, serves the corporations and national politicians more than the farmers themselves. During our research it was possible to verify that agro-neoliberalism is being applied in the localized context of farms and regions, but management, technologies and trade relations increasingly happen in accordance with globalized, transnational interactions and priorities. However, what is still missing in most available publications is a critical examination of the achievements, justification and failures of agro-neoliberalism at the geographical frontier of agribusiness (Ioris, 2015). Therefore, our final observation is that such complex interplay between general trends and place-specific interactions remains a fertile field of work and continues to demand appropriate multidisciplinary attention.

## References

- Acsegrad, V., 2012. *A Economia Política do Agronegócio no Brasil: O Legado Desenvolvimentista no Contexto da Democratização com Liberalização*. PhD thesis. UFRGS, Porto Alegre.
- Agroanalysis, 2014. *Balança comercial: contribuição do agronegócio*. *Agroanalysis* 34 (2), 21.
- Aprosoja-MT, n/d. *Mato Grosso, Brazil: On the Road to Sustainability*. Aprosoja-MT, Cuiabá.

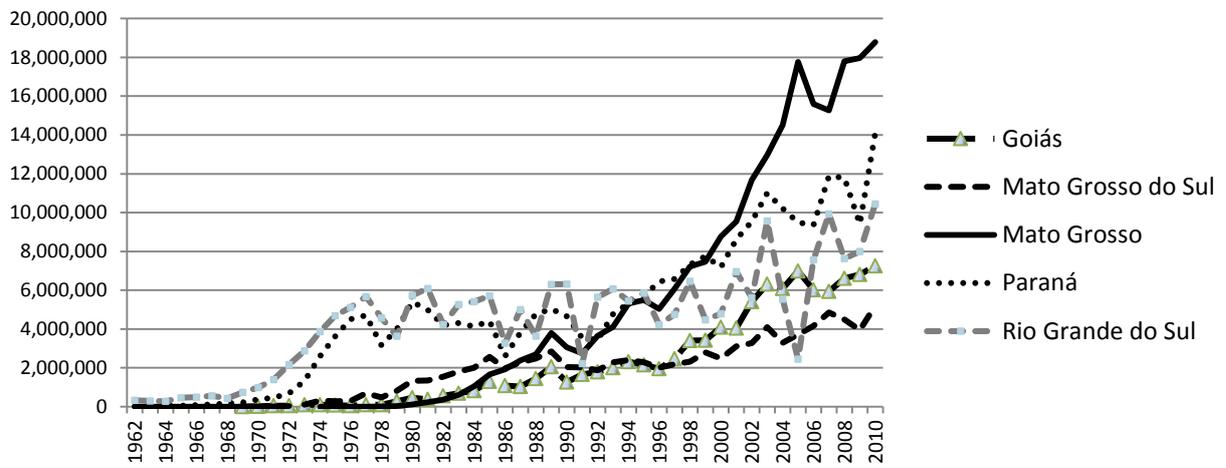
- Araghi, F., 2003. Food regimes and the production of value: some methodological issues. *Journal of Peasant Studies* 30 (2), 41–70.
- Araghi, F., 2009. Accumulation by displacement: global enclosures, food crisis, and the ecological contradictions of capitalism. *Review* 32 (1), 113–146.
- Barros, F.H.T., Korpalski, M., 2012. Migração sulista para o norte do Mato Grosso: o discurso do sujeito sulista frente o multiculturalismo na região de fronteira agrícola da Amazônia Norte mato-grossense. *Revista Eventos Pedagógicos* 3 (2), 346–358.
- Barros, G.S.C., Adami, A.C.O., Zandoná, N.F., 2014. Faturamento e Volume Exportado do Agronegócio Brasileiro são Recordes em, 2013. CEPEA, Piracicaba.
- Barrozo, J.C. (Ed.), 2010. Mato Grosso: A (Re)Ocupação da Terra na Fronteira Amazônica (Século XX). Oikos/Unisinos, São Leopoldo; EdUFMT, Cuiabá.
- Bernardes, J.A., 1996. As estratégias do capital no complexo da soja. In: Gomes, P.C.C., Correa, R.L., Castro, I.E. (Eds.), *Questões Atuais da Reorganização do Território*. Bertrand Brasil, Rio de Janeiro, pp. 325–66.
- Bonanno, A., Constance, D.H. (Eds.), 2008. *Stories of Globalization*. Pennsylvania State University Press, University Park.
- Bonanno, A., Busch, L. (Eds.), 2015. *Handbook of the International Political Economy of Agriculture and Food*. Edward Elgar, Cheltenham.
- Borras, S.M., Kay, C., Gómez, S., Wilkinson, J., 2012. Land grabbing and global capitalist accumulation: key features in Latin America. *Canadian Journal of Development Studies* 33 (4), 402–416.
- Brannstrom, C., 2009. South America's neoliberal agricultural frontiers: places of environmental sacrifice or conservation opportunity? *Ambio* 38 (3), 141–149.
- Brenner, N., Peck, J., Theodore, N., 2010. After neoliberalization? *Globalizations* 7 (3), 327–345.
- Brenner, N., Peck, J., Theodore, N., 2012. *Afterlives of Neoliberalism*. Bedford Press: London.
- Bruno, R., 2009. *Um Brasil Ambivalente: Agronegócio, Ruralismo e Relações de Poder*. Edur/Mauad: Rio de Janeiro.
- Busch, L., 2010. Can fairy tales come true? The surprising story of neoliberalism and world agriculture. *Sociologia Ruralis* 50 (4), 331–351.
- Busch, L., 2014. Governance in the age of global markets: challenges, limits, and consequences. *Agriculture and Human Values* 31 (3), 513–523.
- Busch, L., Bain, C., 2004. New! improved? the transformation of the global agri-food system. *Rural Sociology* 69 (3), 321–346.
- Cáceres, D.M., 2015. Accumulation by dispossession and socio-environmental conflicts caused by the expansion of agribusiness in Argentina. *Journal of Agrarian Change* 15 (1), 116–147.
- Callinicos, A., 2007. *Social Theory: A Historical Introduction*. Polity, Cambridge.
- Campanhola, C., Graziano da Silva, J.F. (Eds.), 2000. *O Novo Rural Brasileiro: Uma Análise Nacional e Regional*. Embrapa, Jaguariúna.
- Canal Rural, 2009. Lula declara disposição para comprar briga pelo agronegócio. 25 June. <http://www.clicrbs.com.br/especial/rs/expointer-2010/19,0,2558094,Lula-declara-disposicao-para-comprar-briga-pelo-agronegocio.html> (last accessed 15 Oct, 2015).
- Ceddia, M.G., Sedlacek, S., Bardsley, N.O., Gomez-y-Paloma, S., 2013. Sustainable agricultural intensification or Jevons Paradox? the role of public governance in tropical South America. *Global Environmental Change* 23 (5), 1052–1063.
- CEPEA, 2014. *Agromensal – CEPEA/ESALQ: Informações de Mercado* (Jan, 2014). CEPEA, Piracicaba.
- Cioccari, D., 2015. Operação Lava Jato: escândalo, agendamento e enquadramento. *Revista Alterjor*, 2, issue 12.
- Clapp, J., Fuchs, D. (Eds.), 2009. *Corporate Power in Global Agrifood Governance*. MIT Press, Cambridge, Mass.

- Cohn, A.S., Gil, J., Berger, T., Pellegrina, H., Toledo, C., 2016. Patterns and processes of pasture to crop conversion in Brazil: evidence from Mato Grosso State. *Land Use Policy* 55, 108–120.
- Collier, P., 2008. The politics of hunger: how illusion and greed fan the food crisis. *Foreign Affairs* 87 (6), 67–79.
- CONAB (Brazil's National Grains Supply Company), 2014. Balança comercial do agronegócio. *Indicadores da Agropecuária* 23 (1), 62.
- CPT (Pastoral Land Commission), 2015. *Conflitos no Campo 2014*. CPT, Goiânia.
- Delgado, G.D., 2012. *Do Capital Financeiro na Agricultura à Economia do Agronegócio: Mudanças Cíclicas em meio Século (1965-2012)*. UFRGS, Porto Alegre.
- Desmarais, A.A., Rivera-Ferre, M.G., Gasco, B., 2014. Building alliances for food sovereignty: La Vía Campesina, NGOs, and social movements. *Research in Rural Sociology and Development* 21, 89–110.
- Dibden, J., Potter, C., Cocklin, C., 2009. Contesting the neoliberal project for agriculture: productivist and multifunctional trajectories in the European Union and Australia. *Journal of Rural Studies* 25, 299–308.
- Duménil, G., Lévy, D., 2004. *Capital Resurgent: Roots of the Neoliberal Revolution*. Harvard University Press, Cambridge, Mass.
- Fairbairn, M., 2014. 'Like gold with yield': evolving intersections between farmland and finance. *Journal of Peasant Studies* 41 (5), 777–795.
- FIESP (Federation of Industries of the State of São Paulo), 2008. *Brazilian Agribusiness: Characteristics, Performance, Products and Markets*. FIESP, São Paulo.
- Fuchs, D., Meyer-Eppler, R., Hamenstädt, U., 2013. Food for thought: the politics of financialization in the agrifood system. *Competition and Change* 17 (3), 219–233.
- Furtado, R., 2002. *Agribusiness Brasileiro: A História*. ABAG/Evoluir, São Paulo.
- Gonçalves Neto, W., 1997. *Estado e Agricultura no Brasil: Política Agrícola e Modernização Econômica Brasileira, 1960-1980*. Hucitec, São Paulo.
- Goodman, D., Watts, M.J., 1994. Reconfiguring the rural or fording the divide?: capitalist restructuring and the global agro-food system. *Journal of Peasant Studies* 22 (1), 1–49.
- Goodman, D., Watts, M.J. (Eds.), 1997. *Globalising Food: Agrarian Questions and Global Restructuring*. Routledge, London and New York.
- Graziano da Silva, J.F., 1988. *Estrutura Agrária e Produção de Subsistência na Agricultura Brasileira*. Hucitec, São Paulo.
- Graziano da Silva, J.F., 1998. *A Nova Dinâmica da Agricultura Brasileira*. 2nd edition. UNICAMP, Campinas.
- Guthman, J., 2007. The polanyian way? voluntary food labels as neoliberal governance. *Antipode* 39 (3), 456–478.
- Harvey, D., 2005. *A Brief History of Neoliberalism*. Oxford University Press, Oxford.
- Helfand, S.M., Rezende, G.C., 2004. The impact of sector-specific and economy-wide policy reforms on the agricultural sector in Brazil: 1980-98. *Contemporary Economic Policy* 22 (2), 194–212.
- Hollander, G.M., 2004. Agricultural trade liberalization, multifunctionality, and sugar in the south Florida landscape. *Geoforum* 35 (3), 299–312.
- Hopewell, K., 2013. New protagonists in global economic governance: Brazilian agribusiness at the WTO. *New Political Economy* 18 (4), 602–623.
- IMEA (Mato Grosso Institute of Agriculture Economics), 2014. *Conjuntura Econômica*, No. 004, 29 Sep 2014.
- IMEA (Mato Grosso Institute of Agriculture Economics), 2016. *Agribusiness no Brasil e em Mato Grosso*. IMEA, Cuiabá.

- Ioris, A.A.R., 2103. The adaptive nature of the neoliberal state and the state-led neoliberalization of nature: unpacking the political economy of water in Lima, Peru. *New Political Economy* 18 (6), 912–938.
- Ioris, A.A.R., 2014. *The Political Ecology of the State: The Basis and the Evolution of Environmental Statehood*. Routledge, Abingdon.
- Ioris, A.A.R., 2015. Cracking the nut of agribusiness and global food insecurity: in search of a critical agenda of research. *Geoforum* 63, 1–4.
- Ioris, A.A.R., 2106. Rent of agribusiness in the Amazon: a case study from Mato Grosso. *Land Use Policy* 59, 456–466.
- Ioris, R.R., Ioris, A.A.R., 2013. The Brazilian developmentalist state in historical perspective: revisiting the, 1950s in light of today's challenges. *Journal of Iberian and Latin American Research* 19 (1), 133–148.
- Isto É Dinheiro, 2013. *Milhão com Açúcar*, 16 Oct, 2013, 83–85.
- Lerche, J., 2013. The agrarian question in neoliberal India: agrarian transition bypassed? *Journal of Agrarian Change* 13 (3), 382–404.
- MacArtney, H., 2009. Variegated neo-liberalism: transnationally oriented fractions of capital in EU financial market integration. *Review of International Studies* 35 (2), 451–480.
- Machado, E., 2009. Governo Lula, neoliberalismo e lutas sociais. *Lutas Sociais* 21/22, 23–34.
- MAPA (Ministry of Agriculture, Livestock and Food Supply), 2010. *How to Invest in Agribusiness*. MAPA, Brasília.
- MAPA (Ministry of Agriculture, Livestock and Food Supply), 2012. *Intercâmbio Comercial do Agronegócio: Principais Mercados de Destino*. MAPA, Brasília.
- Marsden, T., 2004. The quest for ecological modernisation: re-spacing rural development and agri-food studies. *Sociologia Ruralis* 44 (2), 129–146.
- Martins, J.S., 2009. *Fronteira: A Degradação do Outro nos Confins do Humano*. Contexto, São Paulo.
- McMichael, P., 2000. Global food politics. In: Magdoff, F., Foster, J.B., Buttel, F.H. (Eds.), *Hungry for Profit*. Monthly Review Press, New York, pp. 125–143.
- McMichael, P., 2009. A food regime genealogy. *Journal of Peasant Studies* 36 (1), 139–169.
- MDIC (Ministry of Development, Industry and Foreign Trade), 2013. *Brazilian Trade Balance: Consolidated Data*. MDIC, Brasília.
- Mier y Terán, M., 2014. *The Political Ecology of Soybean Farming Systems in Mato Grosso, Brazil: A Cross-scale Analysis of Farming Styles in Querência-MT*. PhD thesis. University of Sussex.
- Moore, J.W., 2010. Cheap food and bad money: food, frontiers, and financialization in the rise and demise of neoliberalism. *Review* 33 (2-3), 225–261.
- Moore, J.W., 2015. *Capitalism in the Web of Life: Ecology and the Accumulation of Capital*. Verso, London and New York.
- Moreno, G. 2007. *Terra e Poder em Mato Grosso: Política e Mecanismos de Burla 1892-1992*. Entrelinhas/EdUFMT, Cuiabá.
- Motta, R., 2016. Global capitalism and the nation state in the struggles over GM crops in Brazil. *Journal of Agrarian Change* 16 (4), 720–727.
- Mueller, C.C., 2012. Regional development and agricultural expansion in Brazil's Legal Amazon: the Case of Mato Grosso. In: Baer, W. (Ed.), *The Regional Impact of National Policies – the Case of Brazil*. Edward Elgar, Cheltenham, pp. 184–203.
- Murray, W.E., 2006. Neo-feudalism in Latin America? globalisation, agribusiness, and land re-concentration in Chile. *Journal of Peasant Studies* 33 (4), 646–677.
- Needell, J.D. (Ed.), 2015. *Emergent Brazil: Key Perspectives on a New Global Power*. University Press of Florida, Gainesville.

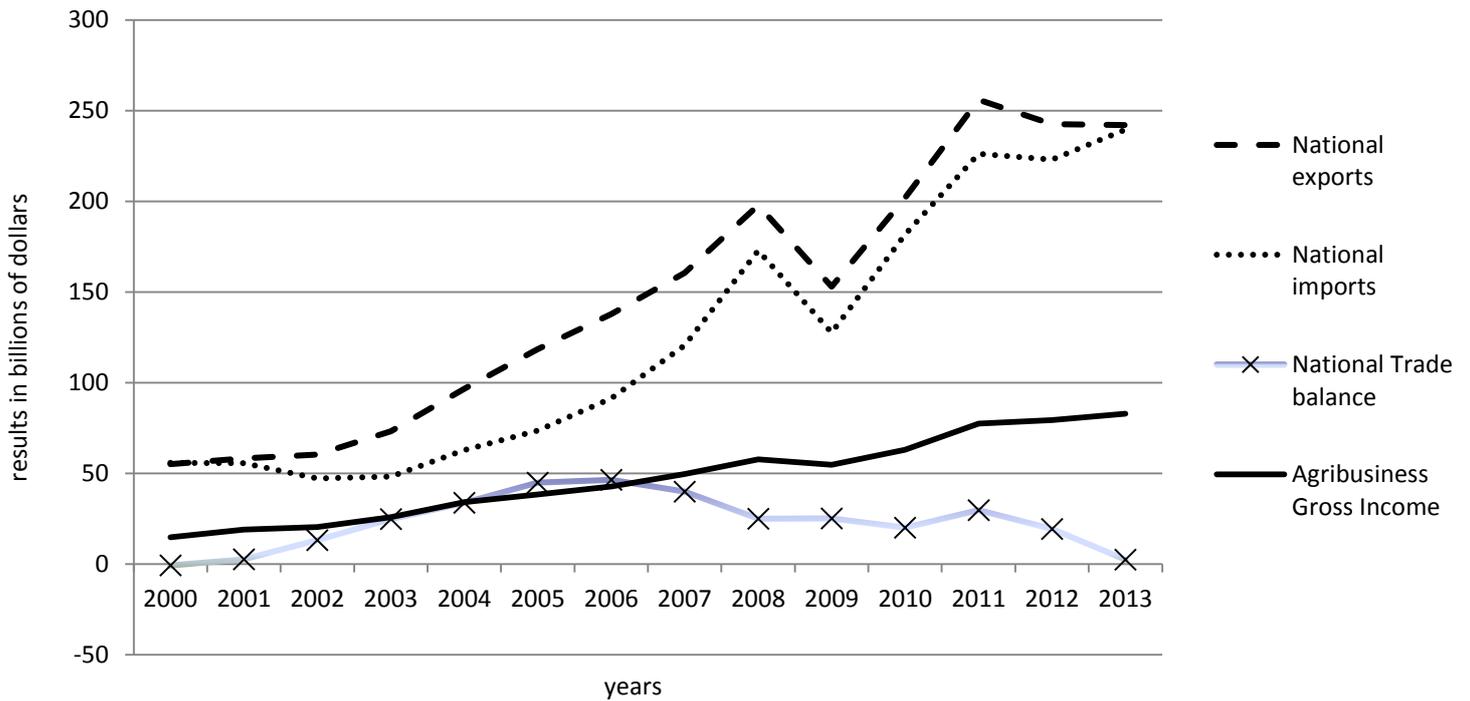
- Newell, P., 2009. Technology, food, power: governing GMOs in Argentina. In: Clapp, J., Fuchs, D. (Eds.), *Corporate Power in Global Agrifood Governance*. MIT Press, Cambridge, Mass., pp. 253–283.
- O Estado de São Paulo, 2014. Governo aumenta em 14,8% valor destinado ao crédito rural., 19 May. <http://economia.estadao.com.br/noticias/economia-geral,governo-aumenta-em-14-8-valor-destinado-ao-credito-rural,185256,0.htm> (last accessed, 19 May, 2014).
- Oliveira, F., 2003. *Crítica à Razão Dualista: O Ornitórrinco*. Boitempo, São Paulo.
- Oliveira, A.U., 2007. *Modo Capitalista de Produção, Agricultura e Reforma Agrária*. FFLCH/Labur Edições, São Paulo.
- Oliveira, G.L.T., 2016. The geopolitics of Brazilian soybeans. *Journal of Peasant Studies* 43 (2), 348–372.
- Oliveira, G., Hecht, S., 2016. Sacred groves, sacrifice zones and soy production: globalization, intensification and neo-nature in South America. *Journal of Peasant Studies* 43 (2), 251–285.
- Oliveira, A.U., Stédile, J.P., 2005. *A Natureza do Agronegócio no Brasil*. Via Campesina, Brasília.
- Otero, G., 2012. The neoliberal food regime in Latin America: state, agribusiness. *Transnational corporations and biotechnology*. *Canadian Journal of Development Studies* 33 (3), 282–294.
- Oya, C., 2005. Sticks and carrots for farmers in developing countries: agrarian neoliberalism in theory and practice. In: Saad-Filho, A., Johnston, D. (Eds.), *Neoliberalism: A Critical Reader*. Pluto Press, London, pp. 127–134.
- Pechlaner, G., Otero, G., 2008. The Third Food Regime: neoliberal globalism and agricultural biotechnology in North America. *Sociologia Ruralis* 48 (4), 351–371.
- Peck, J., 2013. Explaining (with) neoliberalism. *Territory, Politics, Governance* 1 (2), 132–157.
- Peine, E.K., 2010. Corporate mobilization on the soybean frontier of Mato Grosso, Brazil. In: McMichael, P. (Ed.), *Contesting Development: Critical Struggles for Social Change*. Routledge, New York and London, pp. 132–145.
- Pereira, B.D., 2012. *Agropecuária de Mato Grosso: Velhas Questões de uma Nova Economia*. EdUFMT, Cuiabá.
- Pereira, J.M.M., 2015. Modernization, the fight against poverty, and land markets. *Varia Historia* 32, 225–258.
- Petras, J., Veltmeyer, H., 2003. Whither Lula's Brazil? Neoliberalism and 'Third Way' ideology. *Journal of Peasant Studies* 31 (1), 1–44.
- Potter, C., Tilzey, M., 2005. Agricultural policy discourses in the European post-Fordist transition: neoliberalism, neomercantilism and multifunctionality. *Progress in Human Geography* 29 (5), 581–600.
- Richards, P.D., Myers, R.J., Swinton, S.M., Walker, R.J., 2012. Exchange rates, soybean supply response, and deforestation in South America. *Global Environmental Change* 22 (2), 454–462.
- Richards, C., Kjærnes, U., Vik, J., 2016. Food security in welfare capitalism: comparing social entitlements to food in Australia and Norway. *Journal of Rural Studies* 43, 61–70.
- Schmalz, S., Ebenau, M., 2012. After neoliberalism? Brazil, India, and China in the global economic crisis. *Globalizations* 9 (4), 487–501.
- Schneider, S., 2010. Situando o desenvolvimento rural no Brasil: o contexto e as questões em debate. *Revista de Economia Política* 30 (3), 511–531.
- Schneider, M., 2014. Developing the meat grab. *Journal of Peasant Studies* 41 (4), 613–633.
- Serigati, F., 2013. A agricultura puxa o PIB? *Agroanalysis* 33 (2), 13–14.
- Siqueira, T.V., 2004. O ciclo da soja: desempenho da cultura da soja entre, 1961 e, 2003. *BNDES Setorial* 20, 127–222.
- Souza, E.A., 2013. *O Poder na Fronteira: Hegemonia, Conflitos e Cultura no Norte de Mato Grosso*. Cuiabá, EdUFMT.

- The Economist, 2010. The miracle of the Cerrado: Brazil has revolutionised its own farms: Can it do the same for others? 26 August. <http://www.economist.com/node/16886442> (last accessed 26 Aug, 2013).
- The Guardian, 2014. Brazil's 'Chainsaw Queen' takes on environmentalists. 5 May. <http://www.theguardian.com/environment/2014/may/05/brazil-chainsaw-queen-katia-abreu-amazon-deforestation/print> (last accessed 05 May, 2014).
- Terra, 2013. Promovido, Luverdense coloca “o Brasil que dá certo” no mapa do futebol em, 2014. 28 October. <http://esportes.terra.com.br/futebol/futebol-clube/blog/2013/10/28/luverdense-coloca-o-brasil-que-da-certo-no-mapa-do-futebol-em-2014> (last accessed 01 Jan, 2014).
- USDA (U.S. Department of Agriculture), 2016. World Agricultural Production. Circular WAP 7-16 (July 2016). FAS/Office of Global Analysis/USDA, Washington, DC.
- Valor Econômico, 2016. Setor público fecha 2015 com déficit primário de R\$ 111,2 bilhões. 29 January. <http://www.valor.com.br/brasil/4415892/setor-publico-fecha-2015-com-deficit-primario-de-r-1112-bilhoes> (last accessed 21 Oct 2016).
- Warnken, P., 2000. O futuro da soja no Brasil. *Revista de Política Agrícola* year IX (2), 54–65.
- Werner, I., 2011. Do latifúndio ao agronegócio: A concentração de terras no Brasil. 2 August. <http://www.ihu.unisinos.br/entrevistas/45914-do-latifundio-ao-agronegocio-a-concentracao-de-terras-no-brasil-entrevista-especial-com-inacio-werner> (last accessed 3 Oct, 2015).
- Wilkinson, J., 2011. From fair trade to responsible soy: social movements and the qualification of agrofood markets. *Environment and Planning A* 43, 2012–2026.
- Wilson Center, 2009. Sustainability and Agriculture in the State of Mato Grosso. Brazil Institute special report. Washington DC.
- Wolford, W., 2008. Environmental justice and the construction of scale in Brazilian agriculture. *Society and Natural Resources* 21 (7), 641–655.



**Figure 1.** Annual soybean production (tons) in the main Brazilian states

Data source: IPEA



**Figure 2.** Brazil's Trade Balance and the Contribution of Agribusiness

Data Sources: CONAB/MAPA/Ministry of Development

**Table 1.** Evolution of production and labour intensity in Mato Grosso (1970-2006)

	1970	1975	1980	1985	1995	2006
Crop production (ha)	753 749	501 267	1 553 248	2 129 443	2 951 745	6 865 763
Pastures (ha)	31 588 303	11 243 468	14 779 703	16 404 370	21 452 061	22 809 021
Employees (persons)	373 039	263 179	318 570	359 221	326 767	362 895
Tractors (number)	4 386	2 643	11 156	19 534	32 752	40 657
Crop land (ha)/employee	2.0	1.9	4.9	5.9	9.0	18.9

*Data source:* IBGE Agriculture Census (2006) – original table 1.3.25

**Table 2.** Soybean production costs in the State of Mato Grosso

	2010/11	2011/12	2012/13	2013/14	2014/2015**
Main inputs (R\$)*	768.38	811.56	968.34	1,192.56	1,601.75
Labour (R\$)	25.08	24.54	44.36	64.36	74.88
Total costs (variable + fixed) (R\$)	1,483.7	1,635.82	1,908.09	2,347.47	2,913.38
Annual rate of inflation (%)	5.91 (2010)	6.50 (2011)	5.84 (2012)	5.91 (2013)	-----
Main inputs/total costs	51.79%	49.61%	50.75%	50.80%	54.98%
Labour/total costs	1.69%	1.50%	2.32%	2.74%	2.57%

*Sources:* IMEA (weekly bulletin of 04 Apr 2014) / Central Bank of Brazil

\* Main inputs = seeds, fertilizer and agrochemicals; R\$ = Brazilian currency 'real'

\*\* Projection

**Table 3.** Agribusiness and the Brazilian economy (2007-2013)

	2007	2013
GDP Brazil (R\$)	3.58 trillion	4.49 trillion
GDP agribusiness sector (R\$)	833.6 billion	1.02 trillion
Participation of agribusiness in the Brazilian GDP (%)	23.30	22.80
National trade surplus (US\$)	40.0 billion	2.2 billion
Agribusiness trade surplus (US\$)	49.7 billion	82.9 billion

Data consolidated from various bulletins of CENEA (at the University of São Paulo) / SECEX (Brazilian Foreign Trade Secretariat) / Agroanalysis