

Accumulation by Dispossession and Socio-Environmental Conflicts Caused by the Expansion of Agribusiness in Argentina

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Drawing upon the concept of ‘accumulation by dispossession’, this paper analyses the expansion of agrarian capital in Argentina. A case study illustrates the social and environmental impacts of the expansion of agribusiness in central Argentina and the social struggle – both rural and urban – that has arisen to resist this process. Although government policies after the 2001 crisis differ in many ways from those of the 1990s, current agrarian policies are not significantly distinct from those followed during the pre-crisis neoliberal period. Rather than ‘post-neoliberal’, the new model could thus be better described as ‘neo-extractivist’. With the connivance of the state, agribusiness is producing the largest-ever transformation of natural capital into economic capital in the history of the region. Moreover, the latest policy developments suggest that Argentina is on the threshold of a new and deeper stage of agrarian capital expansion and wealth concentration, this time operating at a much larger scale.

Keywords: agribusiness, socio-environmental conflicts, accumulation by dispossession, neo-extractivism, deforestation

INTRODUCTION

David Harvey coined the concept of ‘accumulation by dispossession’ to refer to the policies followed by capitalism under neoliberal governments aiming at transferring public wealth into an increasingly concentrated private sector. Harvey draws upon Marx’s concept of ‘primitive accumulation’, but focuses on the new strategies developed in capitalist Western countries to get hold of public assets. Among the variety of forms of appropriation, he mentions the deployment of the credit system and finance capital, the depletion of global commons (e.g. land, air and water), the privatization of public assets (e.g. universities, pensions, health care and public utilities such as water) and royalty payments related to intellectual property rights. The concept of accumulation by dispossession highlights the fact that primitive accumulation is an ongoing process, and that ‘predatory practices’ are a major feature of current capitalism (Harvey 2003).

Harvey notes that under certain circumstances, capitalism generates capital surpluses that need profitable investment opportunities. Overaccumulation creates the need for new areas to

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invest those surpluses, which often lie outside capitalism itself. Therefore, capitalism needs to create its own 'other' in order to release the pressures generated by overaccumulation. If these assets are not at hand, capitalism has to make them available. Harvey suggests that '... what accumulation by dispossession does is to release a set of assets (including labour power) at a very low (and in some instances zero) cost. Overaccumulated capital can seize hold of such assets and immediately turn them to profitable use.' Similar effects can be obtained by generating crisis and forcing devaluation: 'regional crises emerge ... as a primary means by which capitalism perpetually creates its own 'other' in order to feed upon it' (Harvey 2003, 149–51). Thus, recurring crises are an essential feature of capitalism itself and a major instrument for accumulation by dispossession. The state, with its hegemonic licence to define what is legal and what is not, is not only an accomplice in the process of accumulation by dispossession, but also plays an active role in coordinating new forms of dispossession, in providing normative frameworks that legally support it and in socially validating the process of creating dispossessed social sectors in the eyes of society at large.

According to Marx, primitive accumulation is the historical process of divorcing the producer from the means of production (Marx 1976 [1867], 874–5), and enclosures take place when capital needs to get hold of new assets to further its never-ending drive to accumulate. As Araghi (2009, 120) points out,

Capital came to life via enclosures, and it continues to live through enclosures. This explains its unending need and insatiable appetite for privatization, through dispossession, repossession or commodification of public values, of labour, of knowledge systems – or what is called now property rights – of land, of the environment and other resources, of housing, of food and human genotypes, of ecology, biology and, in the end, of life itself.

Thus, the enclosure of the commons is the main technique of primitive accumulation carried out by capitalist forces (Perelman 2000).

However, dispossession does not necessarily imply changes to property rights; rather, it refers to the ability to gain 'access' to certain resources. Access, defined as the 'multiplicity of ways people derive benefits from resources, including, but not limited to, property relations' (Ribot and Peluso 2003, 154), becomes a key concept for understanding the power relationships existing between dispossessors and dispossessed. Such relationships are highly dynamic and depend on the balance of power among social actors prevailing in each particular historical context. Therefore, access to resources cannot be taken for granted and its control is part of the continuous tensions and social struggles among social actors.

But enclosures not only open new territories for accumulation and impose new social relations, they also displace *campesinos* from rural communities to cities, which supplies global capitalism with an endless army of casual workers (Perelman 2000; McMichael 2006). The sharp increase in labour productivity due to modern rural technologies and the growing presence of large farming units (Amin 2003) exacerbate the displacement of *campesinos*. This is particularly noticeable in large-scale grain production, where the current technological package dramatically reduces the use of labour, forcing *campesinos* into the cities. Of those who remain in the countryside, many find it hard to reach the social reproduction threshold since they are increasingly dispossessed from their means of production. These *campesinos* fit into a category that Araghi (2009) describes as 'partially dispossessed peasants of the South', who become part of the reserve army of migratory labour. Some of them may become semi-proletarians, but this is not a straightforward path, since agribusiness is increasingly using technologies that do not demand much labour. Besides, they lack most of the skills

demanded by modern agriculture. Instead, they may find some non-qualified precarious jobs in cities and/or become integrated in local, clientelistic political networks where they receive basic social and economic benefits in exchange for political support (Bisio et al. 2011) and, eventually, become part of the reserve army of migratory labour referred to by Aragli.

The rationale followed by capitalist expansion through the process of accumulation by dispossession also has profound environmental consequences. This has to do with two incompatible processes: on the one hand, the infinite search for capital accumulation and economic growth and, on the other, the finite availability of natural resources from which capital generates economic value. Drawing upon this point, O'Connor (1988) details what he calls the 'second contradiction of capitalism': capital demands growth and treats the conditions of production (labour and nature) as commodities, but the market cannot assure their supply. Instead, nature is depleted, resources become scarce, and pollution undermines the health and efficiency of labour. As a result, production costs rise and goods become scarcer and more expensive. Capital, therefore, destroys its own environmental conditions of production (Hughes 2000). Despite this, capitalism persists in undermining future accumulation; it behaves as if resources were infinite and pays little attention to the environmental impacts that such an expansion causes. In practice, accumulation by dispossession tends to privatize the economic benefits derived from enclosures and, to externalize to society most of its negative environmental impacts (Wallerstein 1997). If the state does not play an active role in regulating the process, capitalism is incapable of regulating itself.

The global neoliberal project, which targets the social commons in various ways, has produced favourable conditions to foster accumulation by dispossession and to create 'neo-enclosures' (De Angelis 2001) or 'neoliberal enclosures' (Akram-Lodhi 2007). Unlike previous enclosures, their aim is not to 'establish capitalist social property relations but rather to deepen the already prevailing set of capitalist social property relations by diminishing the relative power of peasants and workers in favour of dominant classes' (Akram-Lodhi 2007, 1446). The strategies followed by agribusiness represent a good example of the new enclosures referred to by these authors. With the complicity of the neoliberal state, and with the support of new institutional and legal frameworks, agribusiness is succeeding in separating *campesinos* from their means of production and renewing processes of accumulation by dispossession. Neoliberal conditions have prompted the emergence of a global corporate food regime that not only rests upon the dominant project of global development, but which also has become one of its main tools for accumulation by dispossession. At the same time as conveying a geopolitical order related to a distinctive form of accumulation, it also became a vector of power (McMichael 2005).

Enclosures are an intrinsic part of the logic of capital accumulation and new territories are continuously produced along the process. This demands the control of the territories where capital expands, and also the shaping and control of the institutions and the social relations that command production, extraction and accumulation (Akram-Lodhi 2007). Territories are not ahistorical spaces where social actors share interests and identities. Rather, they are ecological, social, economic and political battlegrounds where social actors dispute power and try to prevail over other actors' interests. Instead of consensus, tensions and conflicts are common currency among social actors interacting in a territory (Montenegro Gómez 2008). Thus, territories are multidimensional spaces (material, ideological and symbolic) where power relationships are layered and interwoven, and where social actors with different capacities, interests and power endowments, aim to control the territories to their own advantage (Haesbaert 2004; Fernandes 2009; Manzanal and Arzeno 2011; Silvetti 2012).

But dispossession and enclosures do not occur in empty space. Those who suffer the effects of dispossession try to resist the process, or to deploy new strategies aiming at maintaining or regaining access to resources. Depending on the characteristics and power of their organizations, different patterns of resistance and social struggle emerge. McMichael (2009) generically uses the term 'peasant movements' to refer to a highly diverse movement acting both locally and globally and resisting commoditization and market-oriented institutions and legal regimes whose policies dispossess small farmers across the world. *Via Campesina* has become a movement of movements that gathers a wide arrange of social actors, that resists and confronts capitalism and globalization and that advocates for a new and more inclusive social and political order.

Accumulation by dispossession is not a process restricted to Southern countries (Harvey 2003). However, it is precisely in those countries that agribusiness is currently focusing its interests. As shown below, this paper will focus on the processes of dispossession related to agriculture (in particular, the expansion of agriculture in non-Pampean regions) and on the social and environmental conflicts that these processes generate. This implies the direct appropriation of key resources (i.e. fertility and water) that sometimes leads to the destruction or harm of resources or ecosystem services¹ that lie beyond the interests of agribusiness (e.g. biodiversity or climate regulation). Sometimes it occurs in indirect ways, such as via intellectual property rights and royalty payments (e.g. transgenic seeds). In the process, *campesinos* and other vulnerable groups are dispossessed of their land and wealth, which is transferred to agrarian capital. Thereby, agribusiness accumulates through the dispossession of *campesinos* and other social actors (Levien 2011).

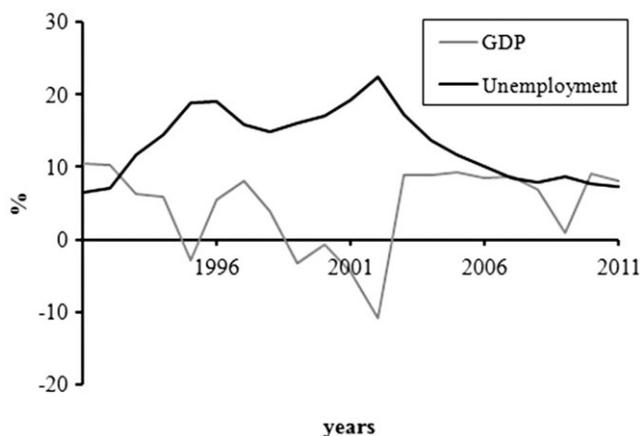
Drawing upon a framework of accumulation by dispossession, this paper aims to describe and analyse how agrarian capital is expanding in the non-Pampean areas of Argentina, and what are the main problems and conflicts that such expansion is generating. A more detailed focus on the particularities of this process in the Province of Córdoba shows how agribusiness is pushing the agricultural frontier ever outwards, into the native forests, and the territory of *campesinos* who make a living out of these forests. A series of emerging environmental conflicts are analysed, in both towns and the countryside. The main argument proceeds in three steps. It starts with a review of the major policies carried out in Argentina during the 1990s and after the 2001 crisis, and a description of the main characteristics of the technological package used by agribusiness is presented. Then, a case study shows the social and environmental impacts of the expansion of agribusiness in non-Pampean regions of the Province of Córdoba and the main struggles arising to resist the process. The last section discusses whether the policies carried out in Argentina during the past decade can be described as part of the so-called 'Latin American post-neoliberalism'.

ARGENTINA: FROM NEOLIBERALISM TO POST-NEOLIBERALISM?

Starting with the dictatorship that took power in 1976, Argentina underwent a neoliberal transformation that reached its peak during the 1990s (Giarracca and Teubal 2004; Novick et al. 2009). Presidents Menem (1989–99) and de la Rúa (1999–2001) carried out deep structural reforms, which ended up with the violent crisis of December 2001 that forced de

¹ Ecosystem services are benefits obtained by people from the ecosystem. There are four types of ecosystem services: provisioning (e.g. food), regulating (e.g. climate regulation), supporting (e.g. nutrient cycling) and cultural (e.g. spiritual benefits) (Millennium Ecosystem Assessment 2005).

Figure 1 The variation of the GDP and the unemployment rate in Argentina between 1991 and 2011



Source: Index Mundi (www.indexmundi.com).

la Rua's resignation. Policies in this period fostered privatization, convertibility,² labour deregulation and the opening of the economy to world trade, which favoured international corporations and financial capital (Teubal 2004; Duménil and Lévy 2006). After 1997, the economy showed a sharp decline and unemployment soared (Figure 1). Despite privatizations, between 1991 and 1998 the foreign debt increased from US\$ 61.3 billion to US\$ 139.3 billion (Teubal 2004).

Neoliberal policies significantly affected farmers. A combination of low international grain prices together with rising internal production costs affected the profitability of agriculture and negatively impacted small and medium-sized farmers. Even when export taxes were eliminated, a growing fiscal pressure and rising prices of farm inputs and privatized public services put smaller farmers in a critical situation. In order to find a way out of the crisis, they tried to modernize their farms and to increase the scale of farming. But they did not have the financial resources to afford that transformation and borrowed money from banks. The high interest rates and the decreasing profitability of agriculture pushed them into a spiral of indebtedness that often ended up with their farms being auctioned (Giarracca and Teubal 2004). Between 1988 and 2002, 88,000 farmers went out of business in Argentina (21 per cent). *Campesinos* and small and medium-sized farmers were the most affected, since more than 75,000 (85 per cent) had to quit farming.³ During the same period, the average farm size increased by 25 per cent (Teubal 2006; Gras and Hernández

² The convertibility plan promulgated in 1991 fixed by law the exchange rate of AR\$1 = US\$1 and decreed its full convertibility (Giarracca and Teubal 2004).

³ Within the frame of this paper, *campesinos* are defined as poor farmers who run farms with low levels of capital investment, use family labour and have a subordinate position within the wider economic and political system. In central Argentina, they focus on extensive livestock rearing (mostly goats), the animals foraging on native forests and pasturelands. Small farmers run capitalized farms and use family labour or hire contractors to carry out major farm activities (e.g. sowing, spraying or harvesting). They mainly cultivate annual crops by using the technological package described below. Due to the small scale of their farming practice, they are in a more disadvantaged and vulnerable socio-economic situation in comparison with medium-sized and large farmers.

2008). These figures show the magnitude of the process of economic concentration that occurred during the 1990s.

The crisis that triggered the resignation of President de la Rúa was both economic and political. Demonstrations were massive and spread throughout the entire country. People asked for changes in economic policies but also demanded *¡que se vayan todos!* (out with them all!), as an explicit reference to their disbelief and utter disenchantment with politicians (Dinerstein 2003). This was the last of a series of conventional neoliberal governments in Argentina (Bonnet 2006) and it set the foundations for what some authors call a 'post-neoliberalism' stage (O'Hara 2010; Grugel and Ruggirozzi 2012). In several Latin American countries (mainly Argentina, Bolivia, Brazil, Ecuador, Venezuela and Uruguay), the 'return of the state' is associated with neostructuralism or post-neoliberalism. Post-neoliberal projects retain some components of the previous export-led growth model (such as a high dependence on agrarian exports and some degree of fiscal restraint), which are seen as essential for economic stability, while introducing new mechanisms for social inclusion and welfare (Grugel and Ruggirozzi 2012).

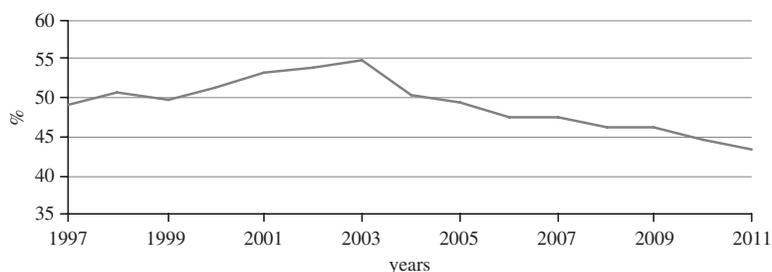
There were five different presidents in less than 10 days during the 2001 crisis. One of them, the interim President Rodríguez Saa, announced the default of the foreign debt. The fifth president was Duhalde, who decided to opt out of convertibility, to devalue the *peso* and to call for a general election. Néstor Kirchner was elected president (2003–7), to be followed by Cristina Fernández de Kirchner (2007–11 and 2011–15). The new governments pursued a strategy of growth based on selective protectionism, and targeted state intervention to facilitate macroeconomic stability and economic growth (Wilde 2011). They fostered a more active role of the state, and a series of policies aiming to tackle unemployment, inequality and social exclusion. Wages and public expenditure rose as part of a strategy to promote domestic consumption and to reactivate the economy. The pension fund that had been privatized during the 1990s was renationalized in 2008 (Arza 2012). This allowed the expansion of the pension system to include people who had not qualified for a pension because they were unemployed.⁴ A series of cash transfer programmes were created, aimed at alleviating social conflict and at mitigating the poverty and inequality caused by neoliberal governments (Faur et al. 2009). Two major programmes were created after the 2001 crisis: the *Plan Jefes y Jefas de Hogar Desocupados* (Plan for Unemployed Household Heads), which was a benefit addressed to unemployed people (Galasso and Ravallion 2004), and the *Asignación Universal por Hijo* (Universal Child Allowance), which aims at helping children whose parents are unregistered workers, low-earning employees, self-employed workers or are excluded from the labour market (Faur 2011).⁵ Overall, the policies implemented by the new government contributed to the recovery of the economy, improved key social variables and had a positive impact on both inequality and poverty (Rofman and Oliveri 2011; Wilde 2012; see also Figures 1 and 2). High prices for agricultural commodities have prevailed during the past decade,⁶ which has provided the key economic resources to carry out these policies.

⁴ Currently, about 90 per cent of the elderly receive some kind of retirement benefit (Rofman and Oliveri 2011).

⁵ About 3.5 million children are currently taking part in this programme. The total population of the country is 40 million, of whom 13 million are children (0–18 years old). There is no data showing how many of these children are poor. According to official data, 5 million inhabitants cannot meet all their basic needs in Argentina (INDEC 2010). To collect the cash transfers, parents must prove that their children are attending school and following a basic healthcare programme (<http://www.anses.gov.ar>, accessed 9 October 2012).

⁶ The IGC Grains and Oilseeds Index increased from 97 in 2000 to 291 in 2012 (<http://www.igc.int/en/grainsupdate/igcexpprices.aspx>, accessed 10 March 2013).

Figure 2 The variation of the Gini index in Argentina between 1997 and 2011



Source: Index Mundi (1997–2010) (www.indexmundi.com). The 2011 figure refers to the first trimester (INDEC).

The new macroeconomic rules were also beneficial to many farmers. The government granted farmers the *pesificación* of all pre-existing debts (Varesi 2009),⁷ and all farm auctions were suspended (Telechea and Muñoz 2011). A massive 400 per cent devaluation of the national currency, and favourable international prices for agro-exports, meant a significant increase in their incomes and a reduction of all the productive costs that depended on the domestic economy. After a couple of years, most farmers overcame the crisis and started to accumulate capital surpluses. Agriculture became very profitable and by the end of the decade land prices rocketed to being only 10–20 per cent lower than in the United States (US) (Pierri 2011).

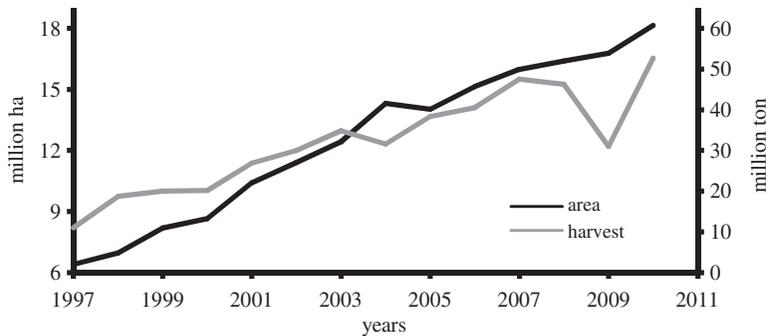
However, *campesinos* and smaller farmers were not equally benefited, or were even negatively affected by the process. The last published national rural census was in 2002, so there is no up-to-date data available. Nevertheless, numerous case studies show how neoliberal policies and the expansion of agribusiness has been hitting small producers as well as generating a series of negative environmental impacts (Van Dam 2003; Cardona 2006; Román and González 2006; González et al. 2007; Zarrilli 2007; Britos and Barchuk 2008; Pérez-Carrera et al. 2008; Aizen et al. 2009; Bisio et al. 2011; Silveti et al. 2013). It is important to note that the national government is fostering this expansion, since grain exports are one of the main sources of hard currency for the economy. In 2002, export taxes were re-established and they became a key policy for the new economic programme.⁸

The high profitability of agriculture explains why the area sown with soya and maize has expanded so fast during the past 15 years, and particularly after 2002, when a combination of domestic policies and high international prices made agriculture highly lucrative. Soya has been the most profitable crop during this period (Pierri 2011) and has therefore been widely cultivated by farmers (Figure 3).

⁷ Duhalde ‘pesified’ the private debt held by the rural sector and large companies (including the privatized ones). In practice, *pesificación* meant that all debts contracted in dollars before the devaluation would be paid back to banks at a rate of US\$1 = AR\$1. This allowed farmers to drastically reduce their debts and to transfer part of their debt to society (Varesi 2009).

⁸ Duhalde ordered a 10 per cent tax on all major export crops, but the rate was soon increased to 20 per cent. In January 2007, Néstor Kirchner increased the tax on soya to 27.5 per cent, and then to 35 per cent in November 2007. Cristina Fernández de Kirchner tried to raise the taxes again through a system of variable taxes that could increase them up to 44 per cent when international prices were very high. Agribusiness responded with a nationwide lockout that imposed an important political defeat on the government (Hora 2010). After four weeks of roadblocks and the suspension of trade in several rural products, the government changed the rate back to its former figure.

Figure 3 The variation of the cultivated area (million ha) and total harvest (million tons) of soya in Argentina between 1997 and 2010



Source: FAOSTAT (www.faostat.fao.org).

HOW DOES DISPOSSESSION HAPPEN?

In Argentina and Latin America, various authors have also discussed the problem of accumulation by dispossession. Stemming from similar theoretical frameworks and focusing on both conceptual perspectives and case studies, they analyse a broad diversity of aspects related to agriculture, property rights, seed patents, and oil and mining (Roux 2008; Svampa 2008; Perelmuter 2011; Plá 2011; Bebbington 2012; Composto 2012; Galafassi 2012; Romano 2012; Seoane 2012).

Acknowledging regional differences, a general discussion of the process of accumulation linked to the expansion of agribusiness in Argentina is presented in this section. Industrial agriculture is the main productive strategy used by agribusiness to appropriate the resources offered by ecosystems.⁹ In the Pampas, the expansion of industrial agriculture started in the 1970s and in many cases it occurred at the expense of land devoted to livestock rearing. In the non-Pampean regions of central and northern Argentina, a similar expansion started in the 1990s and led to a profound transformation of the native forests, affecting the *campesinos* who make a living from those ecosystems. In non-Pampean areas, the conversion starts with the removal of the forest, using heavy machinery. After a few months, the bulldozed trees and shrubs are burnt, which reduces the cost of clearing and speeds up the conversion process. Heavy disc ploughs are used to extract tree roots, to eliminate the remaining vegetation and to partially incorporate it into the soil. Afterwards, the deforested plots are fenced in and ready to be sown with annual crops – mainly soya and maize. Alternatively, exotic pasture may be planted if the land is going to be used to raise cattle. This process takes place mostly in rain-fed areas, but in some cases, and provided that there is underground water available, annual crops are irrigated using centre-pivot irrigation systems. In Argentina, the overall process is generally called *agriculturización*.

⁹ This is a type of agriculture that: (a) depends on off-farm industrial inputs (e.g. pesticides and fertilizer), many of which generate waste that harms the environment; (b) uses large quantities of non-renewable fossil fuels; and (c) tends towards concentration of production, driving out small producers and undermining rural communities (Horrihan et al. 2002). According to Kremen et al. (2012), it is a farming system that simplifies ecosystems and utilizes highly specialized, technical information with the goal of maximizing the profitability of a commodity crop or livestock.

A key aspect of the strategy followed by agribusiness is the use of Monsanto's technological package consisting of 'no-till' farming, transgenic seeds and agrochemicals. No tillage, also termed 'zero tillage' or 'conservation agriculture' (Derpsch et al. 2010), is the cornerstone of the agribusiness strategy. No-till farming improves the soil structure, which has a positive effect on both water infiltration and soil moisture conservation. Moreover, straw mulching reduces evaporation of water from the soil (Triplett and Dick 2008; Kassam and Brammer 2013; Mitchell et al. 2012) and reduces erosion (Viglizzo et al. 2011). Some authors claim that no-till has produced a paradigm shift in how to approach farming (Coughenour 2003; Derpsch et al. 2010; Manuel-Navarrete and Gallopín 2012; Kassam and Brammer 2013).

Transgenic crops were approved in Argentina in 1991 and first sown in 1996 (Burachik 2010). Glyphosate-tolerant soya first, and then lepidopteran-resistant maize, were the two main transgenic seeds used during the early stages. Currently, farmers are using seeds that include multiple transgenes stacked in the same plant (Laursen 2010). Monsanto's 'Intacta RR2 Pro' is the newest soya seed and will reach the Argentine market in 2014. According to Monsanto, this seed 'brings together three solutions in one single product': increased yield, protection against major caterpillars and glyphosate tolerance.¹⁰ In parallel, a team of Argentine scientists from the National University of the Litoral, CONICET and the seed company Bioceres have discovered the gene HB4, which allows high yields to be produced under drought and/or saline soil conditions. In 2012, the Argentine partners formed a joint venture with the American company Arcadian Biosciences. Verdeca, the resulting seed company, is now developing a new generation of wheat, soya and corn seeds that will allow crops to expand into even more marginal areas. Transgenic crops have shown a marked rate of adoption in Argentina, increasing from 1 per cent of the area planted with soya in 1996/97 to well over 90 per cent in 2001/02. This rate is even higher than that observed in the US, which was the first country to introduce this technology (Trigo and Cap 2003). Currently, 99 per cent of the soya and 83 per cent of the maize sown are transgenic, and Argentina has become the second-largest grower of genetically modified crops (Burachik 2010).

No-till and transgenic seeds rely heavily on agrochemicals as the main strategy for weed and pest control. Glyphosate is the main agrochemical used in Argentina. Between 1996 and 2009, the use of glyphosate increased from 14 million to more than 200 million litres (+1,400 per cent) (Giarracca and Teubal 2010). In 2011, Argentina used 336 million kilograms or litres of agrochemicals, worth US\$2.1 billion.¹¹ Herbicides are the most used and account for 75 per cent of the total volume and 59 per cent of the economic value. Insecticides are in second place (Kleffman Group 2012). The use of fertilizers increased from 0.3 million tons in 1990 to 3.7 million tons in 2011.¹²

In short, this technological package permits the cultivation of grain crops in regions where rainfall is relatively scarce and probably not enough for conventional tillage. It also allows labour and other production cost savings (Lahmar 2010). This technology is particularly suitable for large-scale farming, but small farmers have also adopted it. Some authors suggest that this is because it is a 'divisible' technology that can be used independently of farming scale (Penna and Lema 2003) and that lowers production costs (Trigo and Cap 2003; Reboratti 2006). Those smaller farmers who cannot afford the expensive machinery may hire contractors to carry out the main productive activities (Gras and Barbetta 2003). Even though most

¹⁰ In August 2012, Argentina approved the release of this new seed (<http://www.monsanto.com.ar>, accessed 14 October 2012).

¹¹ This figure does not include VAT.

¹² Data from www.fertilizar.org.ar (accessed 25 October 2012).

commercial farmers use this technological package, large farmers have comparative advantages. As will be discussed below, important processes of land and economic concentration occurred during the period in which this technological package expanded (Teubal 2006). Despite the overall dominance of this technological package, the expansion of grain crops has not been homogeneous, nor has it occurred at the same pace, even in the Pampean region. For instance, in areas traditionally devoted to horticulture and fruit production in north-western Buenos Aires, soya cultivation is only slowly replacing other crops, and the region still shows a diversified productive profile. This is because, in this area, farms are not large enough and also because these farmers cultivate intensive crops that generate a higher income (Craviotti and Palacios 2011).

Together with this new technology, a series of managerial innovations were developed in order to adapt farming to emerging new opportunities. Two major managerial innovations observed in this period were to increase the farming area through land leasing and to hire contractors to carry out farming activities (Gras 2009).¹³ This allowed the minimization of costs and the maximization of profits. Although there are several ways of carrying out these innovations, 'sowing pools' allow the greatest economic efficiency to be reached. These are speculative investment funds for large-scale farming, which means that the production process is governed by the administration of these funds, a task performed by contractors (Manuel-Navarrete et al. 2009). In non-Pampean areas, sowing pools are opening up new spaces for cultivation; they are encroaching on the forests and controlling the territories where *campesinos* are settled. In Pampean regions, sowing pools rent and manage farmland that belongs to small and medium-sized farmers, who become rentiers (Giordano-Buiani et al. 2002; Murmis and Murmis 2011). In some cases, medium-sized Pampean farmers rent out their land in order to rent *in* larger pieces of land in non-Pampean regions. When renting the land, sowing pools typically sign yearly contracts and guarantee either in-kind or cash payment. They assume all operating costs, absorb the yield risk of the properties they rent and may share the risk of the price of the crops with the landowner (Bell and Scott 2010). As they lease land in different regions or countries, sowing pools become a reliable strategy to spread productive risks as well as economic and political uncertainties. Latterly, sowing pools have been expanding their activities beyond farming and are diversifying into commercial and financial activities. This expansion implies the development of new links with national and foreign economic groups that are not necessarily related to the rural sector (Murmis and Murmis 2011). Since this social category is not captured by rural censuses, there is no official data about them. According to the president of the *Federación Agraria Argentina* (Argentine Agrarian Federation),¹⁴ 3 per cent of the producers are responsible for 70 per cent of soya production in Argentina, and much of this is carried out by sowing pools (Pengue 2007). Drawing upon Press sources, Oyhantçabal and Narbondo (2011) estimate that there are 2,700 sowing pools in Argentina, controlling between 7 and 10 per cent of the cropland. According to these authors, the six largest sowing pools manage around 3 million hectares. El Tejar is the largest sowing pool, planting 1.1 million hectares in Argentina, Uruguay, Bolivia and Brazil. Gustavo Grobocopatel is the CEO of Los Grobo, farming more than 250,000 hectares,

¹³ Contractors are not a new social actor in Argentina. They have been present since the nineteenth century, when they started offering harvesting services. Over recent decades, contractors have also been offering other services, such as sowing or spraying. Their importance has grown together with the mechanization and intensification of agriculture (Tort 1983; Forni and Tort 1991) and nowadays they are a major actor in Argentine agriculture.

¹⁴ *Federación Agraria Argentina* is one of the major farmers associations in Argentina. It unites small and medium-sized commercial farmers producing grain crops and cattle. *Campesinos* are not represented by this organization.

handling 2.6 million tons of grain per year and generating revenues of US\$550 million. He calls himself a 'landless farmer', since his company rents most of the land that it farms (Bell and Scott 2010). However, sowing pools do not only rely on leased land, and during the past decade they have been buying some of the land that they farm. A growing association between local and foreign investors is also becoming more common (Murmis and Murmis 2011). As happens in other Latin American countries, there is a growing participation of (trans-)Latin American companies in the domestic land market (Borras et al. 2012), and a part of these investments is channelled through sowing pools. Sowing pools' productive and financial flexibility, together with their proven ability to produce managerial innovations, are two major features that distinguish them.

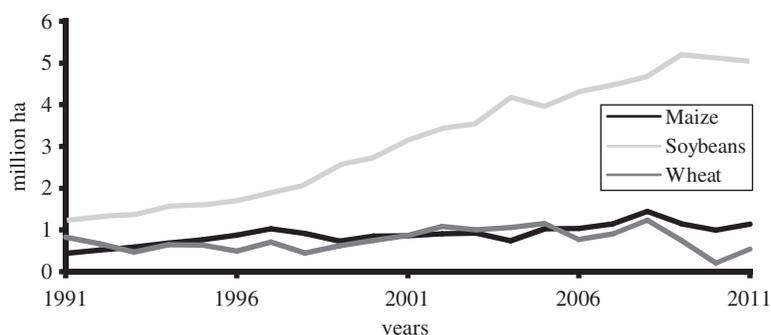
But these processes of technological and managerial innovation would not have taken place had there not been an appropriate political and economic context. As shown above, a series of policies implemented during the past two decades have favoured the expansion of agribusiness in Argentina. The neoliberal policies prevailing in Argentina during the 1990s and the early sanctioning of a legal framework allowing the use of transgenic seeds were key policies favouring the fast spread of the new model. As Binimelis et al. (2009) point out, the diffusion of transgenic technology took place under the aegis of the neoliberal pillars of privatization, commoditization and deregulation. All such conditions were provided in Argentina during the emergence of a new wave of agrarian capitalist expansion and set the basis for a new stage of accumulation by dispossession. Thus, many non-Pampean areas of Argentina became new 'spaces of enclosure' (Akram-Lodhi 2007) and agribusiness succeeded both at developing appropriate strategies and tools for expansion, and at producing appropriate narratives based on economic and moral grounds to justify such an expansion. The ideas of efficiency and modernization were key components of dominant narratives. The *campesino* way of farming, their culture and worldviews, were not part of the ideas of progress and development presented to society. Rather, they were part of a rural past that had to 'evolve' for the common good.

LAND-USE CHANGE IN CÓRDOBA

The Province of Córdoba is located in central Argentina and represents the second-largest economy in the country after Buenos Aires Province. From an agricultural point of view, it has two regions with different productive profiles. Central and south-east Córdoba is mostly a Pampean area, with very good soils and a favourable climate for agriculture. The north and west belong to the non-Pampean region, with relatively poorer soils, a drier climate and a lower potential for agriculture (Ghida-Daza and Sánchez 2009). During most of the past century, the former region had been devoted to annual crops and cattle and the latter was covered with native, dry forests and used for extensive livestock rearing (mainly goats and cattle). However, important land-use changes have occurred during the past two decades; a combination of ecological, technological and economic factors has had a profound impact on the productive landscape (Zak et al. 2008). As will be shown below, annual crops have expanded into areas formerly occupied by native forest (Table 1) that had been mostly devoted to livestock farming. Thus, the area cultivated with annual crops (particularly soya) has increased significantly (Figure 4).

Between 1991 and 2011, the area sown with these three crops increased from 2.5 to 6.9 million hectares (+276 per cent), at a rate of 220,000 hectares per year. Over this period, maize and wheat stayed relatively stable, but soya showed a marked expansion, rising from 1.2 to 5.1 million hectares (+425 per cent). In productive terms, this is happening, at least in part,

Figure 4 The area cultivated with maize, soya and wheat (million ha) in the Province of Córdoba (Argentina) between 1991 and 2011



Source: SIIA, Ministerio de Agricultura Ganadería y Pesca, Argentina (www.siaa.gov.ar).

Table 1. The total land-use change in three areas of the north, north-east and north-west of the Province of Córdoba (Argentina) in 1979, 1999, 2004 and 2010

	Land cover types (%)			
	1979	1999	2004	2010
Closed forest	29.5	24.7	14.9	5
Open forest	9.8	15.8	15	13.2
Shrubland	33.3	26.3	27.3	34
Cultivated land	27.4	33.2	42.8	47.8
Total	100	100	100	100

Source: Modified from Hoyos et al. (2013).

at the expense of livestock. Between 1993 and 2010, the cattle stock of the Province of Córdoba decreased from 7.7 to 4.8 million (–38 per cent), at a rate of 170,000 head per year. The decrease would have been more noticeable if it had not been for the intensification and increase of productive scale observed in cattle rearing during the past decade.¹⁵ The expansion of annual crops is not only impacting cattle stocks, but is also producing its spatial relocation. Cattle are being confined and managed more intensively (i.e. in feedlots), but at the same time are being moved to more marginal land where crop production is less profitable, unfeasible or more hazardous. Therefore, the north and west of the province are experiencing two kinds of change: the expansion of annual crops and the relocation of cattle (Calvo et al. 2008).

In a recent study, Hoyos et al. (2013) analyse land-use changes in three large areas of northern, north-eastern and north-western Córdoba. Using satellite images, they compared land cover types of 2,246,761 hectares, at four different dates: 1979, 1999, 2004 and 2010 (Table 1). These results show a significant reduction of the land covered by native forest,

¹⁵ By the end of 2009, there were 265 registered feedlots in the Province of Córdoba, with an average of 1,069 head of cattle per feedlot (Cohan and Costa 2011).

which is accompanied by a notable expansion of cultivated land.¹⁶ The highest loss occurred between 1999 and 2010. Taking ‘closed’ and ‘open’ forests together, they went from 41 per cent to 18 per cent of land cover, which – in the surveyed areas only – represents an annual loss of almost 47,000 hectares. A significant share of these forests was taken for agricultural cultivation (mainly annual crops), which shows its steepest increase after 1999.

Zak et al. (2008), Cáceres et al. (2010) and Hoyos et al. (2013) suggest that the expansion of agriculture is the main driver of land-cover change in the Province of Córdoba. The increase of rainfall observed in the non-Pampean areas of Córdoba, together with the new technological package and high international prices for commodities, are the main factors driving this change. Other authors show analogous findings while analysing other processes of land-use change in similar, non-Pampean regions of northern Argentina (Grau et al. 2005; Paruelo et al. 2005; Gasparri and Grau 2009; Seghezzo et al. 2011).

It is important to note that the expansion in the non-Pampean areas of the province is occurring on soils with limited productive capacity. Unlike the soils of the Pampas, the soils in this region are less fertile and are not capable of supporting continuous agriculture. According to the *Ministerio de Agricultura Ganadería y Alimentos* (Ministry for Agriculture, Livestock and Food), soil classes I and II (the most fertile ones) are virtually absent in the region. More than 82 per cent of the soils of the non-Pampean region of the province belong to classes VI to VIII, which are only suitable for pasture and forest. These data suggest that a considerable portion of the area over which annual crops are expanding have soils that cannot withstand continuous agriculture. Considering national data from both Pampean and non-Pampean areas, Cruzate and Casas (2012) argue that current crop management is depleting soil nutrients. During the 2010/11 season, only 34.6 per cent of the nutrients contained in the grain produced in Argentina were returned to the soil.

From a socio-economic perspective, it is important to mention that the area over which agriculture is expanding in the province of Córdoba has historically been occupied by *campesinos*, whose livelihoods rely heavily on the native forests, from which they obtain a wide range of ecosystem services (Silvetti 2012; Tapella 2012). Therefore, its conversion into cropland or pasture directly jeopardizes their social reproduction (Cáceres et al. 2010). The overall process is impacting the number of small farms existing in the region (Table 2).

Between 1988 and 2002, the number of farms decreased by 31 per cent, with the 0–200 hectare stratum being the most affected one, with a loss of 38.5 per cent of these farms. This is precisely the farm-size interval in which most *campesinos* are included. Conversely, the number of farms bigger than 2,500 hectares has shown a significant increase. The sharpest increase was observed in the number of farms of more than 10,000 hectares, which rose by 56 per cent. During the same period, the average farm area grew from 326 hectares to 487 hectares, showing a 49 per cent increase. These data show a marked process of land and economic concentration, small producers being the most affected ones. It is important to highlight that the figures presented in Table 2 miss the period of highest intensity of agricultural development (see the changes observed between 2004 and 2010, presented in Table 1).

CONFLICTS IN TOWN AND COUNTRYSIDE

As a consequence of the above-described processes, a series of social and environmental conflicts have arisen. This section will focus on the conflicts that have emerged during the past

¹⁶ The region has a very low population density (INDEC 2010). Therefore, the observed changes are mostly due to the expansion of agricultural activities.

Table 2. The variation in the number of farms and the total area (ha) occupied by them in the non-Pampean region of the Province of Córdoba (Argentina) between 1988 and 2002

Farm size (ha)	Number of farms		Total area (ha)	
	1988	2002	1988	2002
0–200	6,935	4,264	415,282	282,004
200–500	1,506	1,242	488,779	414,212
500–1,000	787	608	512,564	440,401
1,000–2,500	447	440	727,429	687,707
25,000–5,000	160	164	511,674	574,464
5,000–10,000	36	67	261,384	477,299
>10,000	16	25	304,129	439,884
Total	9,887	6,810	3,221,241	3,315,971

Source: Censo Nacional Agropecuario, 1988 and 2002 (INDEC 1988, 2002).

15 years in the Province of Córdoba, first in the countryside and more recently in urban spaces. Also, the disputes generated during the discussion of a new law aiming at protecting the remaining native forests will be addressed. These conflicts reflect the ongoing struggles between agribusiness and other social actors over the enclosure of the global commons. They are also an expression of the social and environmental impacts that the expansion of agribusiness is causing. Rather than being a localized and restricted confrontation, these conflicts are part of a wider economic and political struggle that draws upon the project of global development, which is embodied in what McMichael (2005) calls the corporate food regime.

Conflicts in Rural Areas

In Córdoba, most *campesinos* are occupants or have possession rights over the land that they farm, and just a small proportion of them have land titles. According to the Argentine Civil Code (Articles 4015 and 4016), any person can claim landownership after 20 years of uninterrupted occupation and effective use of the land (Bueres and Highton 2004). The existence of large areas of state-owned lands occupied and farmed by *campesinos* is not a widespread condition in Córdoba. Therefore, the problem derived from the expansion of agribusiness is not one of land privatization, since land was already privately owned. Rather, the main problems arising from such expansion are land property change and the modification of the norms governing land access.

Historically, local farmers had a loose approach to landownership. This included not only *campesinos*, but also local ranchers who had been farming in the area over recent decades. Even though the latter usually had their farms fenced, these fences were not good enough to stop *campesino* goats. Therefore, goat intrusions were common and at some level tolerated by local ranchers. In contrast to this, farmers and ranchers coming from other regions and settling down in northern or western Córdoba are very strict and do not allow any fence trespassing. This has deeply modified *campesino* livelihood strategies and triggered a series of conflicts: farmers claim that goat intrusions damage their crops, and *campesinos* say that farm

fences restrict livestock access to forage and water.¹⁷ The following statement shows how fencing is impacting *campesino* livelihoods.

. . . I think that this has always been a region for goats, I have always lived here in this house and they [farmers] come now and buy the land. People who come from other places should know that we raise goats and sheep here . . . They should know that they have to make good fences so our goats cannot cross them. They say to us that we must control our animals but we can't, they cross the fences. But this is not how this should be, because they are the ones who are coming here from other regions. We haven't gone to their places; it's them who have come to ours . . . (Campesina, Victoria Oeste, Province of Córdoba, Argentina)¹⁸

Bisio et al. (2011) suggest that *agriculturización* is deeply modifying *campesino* livelihoods. Changes in the kind of livestock they raise and a reduction in the number of animals they keep are the two main productive transformations.¹⁹ In practice, farmers' fences work as if *campesino* land has shrunk, affecting the access by livestock to forage and water. Moreover, *campesinos* have to devote more time to herding their animals in order to prevent fence trespassing and/or to supply them with fodder or water. From a social perspective, the weakening or even the collapse of social networks is another negative impact of the expansion of agribusiness. *Campesinos'* livelihoods rely on dense local and non-local social networks (Silveti and Cáceres 1998; Martínez 2004),²⁰ but these networks become weaker as *campesinos* are evicted from their lands, as shown in Table 2. Therefore, a combination of both productive and social issues is directly affecting *campesino* livelihoods and hindering their social reproduction.

The testimony presented above expresses the process of neo-enclosure (De Angelis 2001) carried out by agribusiness, which directly affects *campesino* access to their means of production. The appropriation of resources to which *campesinos* have access may follow different strategies. A common action frequently carried out by newcomer farmers is to shoot trespassing animals, or run them over with their vehicles. This is against the law, but it is considered a minor criminal offence by local authorities. Usually, it is private guards or farmworkers patrolling the farm perimeter who do the killing. *Campesinos* who are unable to show land titles are sometimes forced to abandon their farms, even when they have been living there and farming the land for generations (Romano 2011).²¹ The enclosure of *campesino* land may happen in different ways. Sometimes it is related to the return of absentee landlords who, after decades of not showing up, claim back land occupied by *campesinos* for generations. Absentee

¹⁷ Besides, *campesinos* say that farmers kill their goats and that while spraying crops their homesteads are also sprayed, which affects livestock and their own health.

¹⁸ Taken from the author's own fieldwork, carried out in 2009 in several departments of northern and western Córdoba.

¹⁹ *Campesinos* are moving from goats to cattle. Even when raising cattle does not quite suit their livelihood strategies, cows are much more manageable and do not cross farmers' fences (Cáceres et al. 2010; Bisio et al. 2011).

²⁰ Both local and non-local social networks are important for *campesinos* in the Province of Córdoba. Local networks provide productive, social and cultural support, and non-local networks provide cash remittances, medicines and other goods from cities, and help *campesinos* to obtain fairer prices for some of their products (Bisio et al. 2011).

²¹ If *campesinos* resist eviction, the police may come with bulldozers and sweep away *campesino* houses, wells and all farm infrastructure. This is a rather common procedure that had happened many times in Córdoba. The most recent incident at the time of writing occurred on 14 April 2013 in Paraje Tres Esquinas. As they resisted eviction, 15 *campesinos* and their lawyer were arrested and are now facing charges of land usurpation (see http://www.lmcordoba.com.ar/nota/124837_al-menos-15-detenidos-tras-violento-desalojo-a-campesinos, accessed 15 April 2013).

owners may also sell the land to investors or to farmers who plan to start a new farm. In these cases, it is the latter who confront *campesinos* and force eviction. A third strategy, often practiced by farmers or businessmen coming from other regions, is to make a fraudulent claim by producing fake land titles, in order to demand land occupied by *campesinos*. It is not uncommon that these fake landlords are in connivance with employees of the regional cadastral office. *Campesinos* holding land titles or possession rights may sometimes sell their land or rights. But *campesinos* usually fail to make a good deal, and end up either selling below market price or accepting conditions that are not convenient to them (or both). When available, agribusiness also takes over communal lands.²² *Campesinos* try to resist the process but their organizations are not powerful enough to confront agribusiness interests.²³ Those who refuse to abandon their land may be confronted by private armed guards or suffer police repression and/or end up arrested by the police. Therefore *campesinos* are not only dispossessed of their land but also, as Romano (2011) argues, they may end up being accused of land appropriation.²⁴

The number of conflicts involving *campesinos* and aboriginal peoples in northern Argentina has increased. The figures provided by REDAF (2010) give an idea of the magnitude of the process. They identified 153 land conflicts encompassing more than 1.7 million hectares of Chaco forests. Most of these conflicts (89 per cent) started after 2000, which coincides with the period in which the profitability of agriculture increased and the expansion of agribusiness accelerated. Almost 100,000 people are affected by these conflicts, and 56 per cent have already been evicted or are suffering some kind of eviction action. Most of the conflicts (56 per cent) involve families that have less than 100 hectares, and agriculture is the main use to which the land taken from them is put.

The above-described processes could be linked to two main major strategies of capitalism. First, there is the creation of neo-enclosures, which opens up new lands for accumulation by dispossession (De Angelis 2001; Akram-Lodhi 2007). Neo-enclosures deepen pre-existing capitalist property relations by reducing *campesino* power in favour of dominant classes. But also, the political forces supporting their expansion foster institutional changes in the state and impose new juridical frameworks that set the legal and institutional bases for dispossession. And, second, these processes embody one of the many forms in which land grabbing occurs (Borras and Franco 2012; Borras et al. 2012). In the course of expansion, agribusiness is not only getting hold of lands that belonged to *campesinos*, but is also changing the local rules that govern land use and the access to key resources (Ribot and Peluso 2003). As a result, *campesinos* end up either abandoning their land or being cornered in small pockets of land where they can no longer carry out their livelihood strategies.

But the ways in which agribusiness expands and the pace of the expansion are not homogeneous. They depend not only on the structural forces linked with the prevailing political and economic powers, but also on associated factors related to agrarian capital itself

²² In 2005, 23,000 hectares of La Rinconada communal land were taken over by an investor from eastern Argentina. After the land was fenced, more than 100 *campesino* families lost access to key pasturelands and, most importantly, to the Dulce River, the only permanent source of water in the region (Romano 2011).

²³ *Campesinos* do not have a tradition of organization and social struggle in the Province of Córdoba. Currently, they are represented through five organizations gathered in the *Movimiento Campesino de Córdoba* (Peasant Movement of Córdoba), which follows *Vía Campesina* (see McMichael 2008). APENOC, created in 1999, was then followed by UCAN, OCUNC and UCATRAS.

²⁴ Romano (2011) points out that 70 per cent of the *campesinos* involved in land conflicts were indicted for land usurpation in Córdoba between 1988 and 2008 (124 cases from 1988 to 1998 and 333 from 1999 to 2008). Criminalization of *campesinos* is a common outcome of the land struggles in Argentina (Goldfarb 2012). Thus *campesinos* who have been living on the land for generations are often accused of usurping their own land.

Table 3. The main characteristics of the stakeholders confronted during the discussion of the draft for protecting native forest in the Province of Córdoba (Argentina)

	Campeño–environmentalist	Agribusiness
Who?	Campeño representatives, grassroot groups, key environmental and social scientists, NGOs, a few left-wing legislators	Farmers and ranchers representatives, agro-industry, most ruling party and other right-wing legislators
Aims/issues	Support agro-ecology as an alternative to industrial agriculture Both forests and local communities must be protected Support for social and ecological diversity Advocate for an equitable and sustainable development	The expansion of the agricultural frontier fosters development Modern agriculture increases production and brings about progress to marginal areas Moral mission: the world needs food
Lobbying capacity	Low	High

Source: Modified after Silvetti et al. (2013).

(Akram-Lodhi 2007) and on the peculiarities of the social and ecological environments where the expansion takes place. In Córdoba, during and immediately after the 2001 crisis, the conditions were nearly optimal and the expansion of agribusiness was fast and widespread. But during more recent years, this expansion seems to be slowing down. This could be related to the fact that the best areas have already been taken, or it could be because *campesino* organizations and their allies are fighting back against such expansion. Bisio et al. (2011) suggest that *campesinos* are being displaced at higher rates from areas with soils that can be used for annual crops, and they manage to resist in regions where soils are not good enough for agriculture, and/or where their organizations are comparatively stronger and able to confront agribusiness interests.

New Legislation to Protect Forests

In 2010, the Legislature of the Province of Córdoba promulgated Law 9814 to protect the remaining native forests. The discussions around the draft version of this law were revealing, as they exposed the main issues in this matter.

In 2007, the National Parliament promulgated a law aiming at protecting Argentina's native forests (law 26,331). This is a rather progressive law that also protects *campesinos* and indigenous peoples making a living from these forests. It defines three main conservation categories – red, yellow and green – defines the kind of activities that can be carried out in each area, and calls for social participation. The national law is a general framework, from which each province has to produce its own environmental law.

When the discussion of the provincial law started, an *ad hoc* commission was created in Córdoba (COTBN).²⁵ Two groups with different interests soon emerged: 'campesino–environmentalist' and 'agribusiness' (Silvetti et al. 2013). Table 3 summarizes the main characteristics of each group.

²⁵ COTBN stands for *Comisión de Ordenamiento Territorial del Bosque Nativo* (Commission for the Territorial Planning of Native Forests).

Soon after the *ad hoc* commission was formed, internal disputes arose and agribusiness representatives walked out, claiming that it was controlled by ‘fundamentalist groups’ (Silvetti et al. 2013). The commission followed all the steps and met the criteria demanded by the national law and, before submitting the project, they attended numerous meetings with the delegates of the Chamber of Environmental Issues of the Legislature. Meanwhile, in parallel to the work of the COTBN, the agribusiness group produced their own project, which neither met key technical aspects ordered by the national law nor followed the participatory criteria it proposed.

The *Movimiento Campesino de Córdoba* actively participated in the process. They marched more than 200 kilometres to Córdoba city, attended meetings with legislators and, together with other groups, organized a series of demonstrations. But these rallies were not massive and most urban people were not aware of what was at stake. Close to the date on which the project was going to be discussed in the legislature, the agribusiness group intensified their pressure on legislators. What follows is the statement by the president of one of the main farmers’ associations and spokesperson of the agribusiness group:

... our general feeling can be summarized in two words: impotence and incredulity. All the technical, social, and economic reasons are worthless if politicians only listen to street demonstrations carried out by fundamentalist groups. We repeat it and we warn about it once again: by supporting the project proposed by the COTBN, the government is directly excluding thousands of farmers in Córdoba and marginalizing their production. Besides the world wants food and it’s not possible to produce anything . . . Keep in mind that in the legislature’s records our children and grandchildren will read the names of those who voted for a project for multiplying poverty in a forgotten area of the Province of Córdoba. (Marcos McHardy, president of *Sociedad Rural de Jesús María*)²⁶

In the end, the provincial legislature approved the bid produced by the agribusiness group. The law has a clear productivist focus and prioritizes agricultural production over forest conservation and *campesino* livelihoods. Even in areas considered highly important from an ecological point of view, high-impact activities such as irrigated agriculture are allowed if underground water is available. After this parliamentary defeat, the commission presented an action for protection of constitutional rights to the Supreme Court of Justice, which has not yet resolved the case.

The process described above shows what is at stake when dealing with environmental issues and that, in fact, social actors put much more at stake than just ‘mere’ environmental issues. Silvetti et al. (2013) argue that this case illustrates how farmers allied with agro-industry and the ruling provincial party get their interests to prevail over a national law, even when not following the main guidelines ordered by the latter. This expresses a power alliance historically consolidated between economic and political power that uses the institutional framework of the state for its own benefit, disregarding environmental and social costs.

Conflicts in Urban Areas

The approval of the pro-agribusiness law implied a political defeat for the *campesino*–environmentalist group. It was not clear how the struggle against agribusiness would continue.

²⁶ See ‘Ley de Bosques: fuertes críticas del campo (entidades aseguran no haber sido escuchadas)’. *La Mañana de Córdoba*, 12 April 2010 (<http://www.lmcordoba.com.ar/nota.php?ni=9684>).

But two foci of resistance located in urban areas gave continuity to the process: a trial against farmers accused of agrochemical pollution, and Monsanto's decision to build a seed plant in Córdoba.

Ituzaingó Anexo is a neighbourhood on the outskirts of Córdoba city. In 2001, a group of women denounced farmers for spraying their crops near their houses and affecting neighbours' health. About 200 people had died of cancer, or had cancer or other degenerative diseases, in a neighbourhood of 5,000 people. These figures are much higher than the city average (Berger and Ortega 2010; Carrizo-Sineiro and Berger 2012). The women claimed that this was due to pesticides sprayed on soya and other crops planted nearby. They called themselves the *Madres de Barrio Ituzaingó Anexo* (Mothers of Ituzaingó Anexo Neighbourhood) and led a long-lasting struggle for life, health and the environment, which in 2008 led to three people being taken to court (two farmers and the pilot of a spray plane). On 21 August 2012, one of the farmers and the pilot were found guilty of 'environmental pollution' and given 3-year suspended sentences. They were also ordered to carry out unpaid work in health institutions, and are not allowed to use pesticides for 8 and 10 years respectively. This sentence is the first of its kind in Argentina. The trial had wide coverage in the local, national and international media and, for the first time, the problem of pesticide use was placed on the agenda. Sofia Gatica, the leader of the *Madres de Barrio Ituzaingó Anexo*, won the 2012 Goldman Environmental Prize for South and Central America.²⁷

The other focus for resistance was around Monsanto's decision to build a new plant to produce transgenic seeds in Malvinas Argentinas (a small town on the outskirts of Córdoba city) and two experimental stations in Rio Cuarto and Tucumán. President Cristina Fernández made the public announcement on 15 June 2012, after meeting Monsanto's representatives in New York. According to a statement made public by the company, they plan to invest US\$400 million and to produce enough maize seeds to sow 3.5 million hectares per year. Thus, Argentina will have two of the biggest plants for seed production in the world, both of them belonging to Monsanto.²⁸ Córdoba's Governor welcomed Monsanto's plans and denied the likelihood of negative environmental effects.²⁹ It is important to highlight that, from the point of view of the company and agribusiness interests, the timing of the announcement was not good, since it happened just as the Provincial Court was judging the Ituzaingó Anexo case, and people were highly sensitized about agriculture-related pollution.

The *Madres de Barrio Ituzaingó Anexo*, together with the group *Paren de Fumigar* (Stop Spraying)³⁰ and other environmental groups and organizations, called for a demonstration in Córdoba city against Monsanto. On 18 September 2012, a massive rally of about 8,000 people

²⁷ It is interesting to analyse why this kind of conflict has not emerged earlier, since farming has been close to urban centres for decades. There may be two main reasons. First, farming is getting increasingly close to cities and the intensification of agriculture demands a growing use of agrochemicals. Second, the commitment and organization of the *Madres* played a key role in acknowledging the problem and in carrying out the campaign.

²⁸ See <http://www.monsanto.com/global/ar/noticias-y-opiniones/Pages/20120613.aspx> (accessed 1 November 2012).

²⁹ In a recent statement, the governor said 'How can we not be happy about Monsanto coming to Córdoba to install the biggest plant in Latin America to process maize seeds . . . ? I understand that nowadays all of us want to take care and protect the environment. Some people say that this generates pollution. To produce seeds doesn't generate pollution. Companies like this help to reduce world hunger because they help to produce record harvests . . .'. José Manuel de la Sota, Governor of the Province of Córdoba, 18 July 2012 (Gobierno de la Provincia de Córdoba, <http://prensa.cba.gov.ar/economia/de-la-sota-llegaron-inversiones-por-4-000-millones-de-pesos/>, accessed 1 November 2012).

³⁰ *Paren de Fumigar* brings together social organizations fighting against the indiscriminate use of pesticides, seed patents and the installation of agro-industries. They advocate for organic and sustainable agriculture and for the defence of food sovereignty (<http://parentefumigar.blogspot.com>).

protested against Monsanto's plans. This was probably the largest-ever demonstration held in Córdoba in support of an environmental cause. Also, protesting groups carried out a series of minor demonstrations and roadblocks next to the site on which the plant is being built. After the march, members of different institutions and political parties had to take positions on Monsanto's initiative. For instance, the *Universidad Nacional de Córdoba* (National University of Córdoba) disapproved of the construction of the new plant and warned about its likely environmental impacts. The university had supported both the *campesino*–environmental group during the discussion of the forests law and the *Madres'* fight for a healthier environment. This is probably why, after the demonstration, the Minister for Agriculture made a statement supporting Monsanto's plans and levelling criticism against the university:

[Monsanto] fed millions of people around the world . . . I believe that the *Universidad Nacional de Córdoba*, as well as other universities dealing with technological issues in the country, has the obligation to study this matter. They can't just make criticisms without going to the bottom of the problem, because following this criterion we wouldn't have electricity today. Electricity kills, but well used is the engine of society . . . To suppose that the government is doing nothing, that the people of Malvinas Argentinas cannot think, leads me to think that instead of going forward the *Universidad Nacional de Córdoba* is self-isolated, it's in the Middle Ages. Society wants concrete answers rather than half answers or fundamentalist answers. (Néstor Scalerandi, Minister for Agriculture, Livestock and Food, Province of Córdoba)³¹

This statement illustrates a recurrent argument put forward by those who support agribusiness interests: new technologies are the gateway to progress and a major factor in solving world hunger problems. Therefore, those who criticize them are either backward or fundamentalists, and stand opposed to the 'natural' course of history. Similar reasoning was put forward by agribusiness group representatives during the discussion of the forests law.

These protests seem to support the idea that urban people are increasingly aware of the hazards posed by agrochemicals. The guilty verdict in the *Madres'* trial may have helped to include the issue on the public agenda. People's concern about agrochemicals is understandable, especially if one considers how close farming is to the places where people actually live. In the Province of Córdoba, there are 16 departments that currently sow more than 50,000 hectares of soya and maize. In these departments there are 213 towns and 110 rural villages, many of which are small rural villages of less than 1,000 inhabitants (DGEC 2008). Most of these 323 urban centres are surrounded by annual crops or cultivated pastures, and farmers spray agrochemicals on them. Aerial spraying is legal in Argentina, which aggravates the problem. Also, in many towns there are shops selling agrochemicals and large silo storage plants. The former do not always keep the agrochemicals according to the safety criteria required by the law that regulates the use of agrochemicals in the province (Law 9164/05), and the latter fumigate silos regularly in order to control insects in stored grain. What is more, in non-Pampean areas where water quality is not good enough for spraying, self-propelled sprayers come into towns to reload with water and agrochemicals (Cáceres et al. 2010). All these situations pose different degrees of health hazards to local populations. This is why several municipalities have recently prohibited agrochemical use in a 500–1500 metre belt around urban centres.

During a research interview carried out in 2009, one of the representatives of the *Movimiento Campesino de Córdoba* pointed out that to confront agribusiness it was necessary

³¹ See *La Mañana de Córdoba*, 19 September 2012 (<http://www.lmcordoba.com.ar/nota.php?ni=105411>).

to develop a wider strategy, involving not only *campesinos* but also urban people. This is probably related to *Via Campesina's* declared intention to confront globalization through coordinated actions of both rural and urban organizations (McMichael 2006). It is not possible to say whether the social conflicts observed in Córdoba city over the past 10 years are part of a more inclusive strategy or if they just stem from different (but related) social processes. But there do seem to be differences between the approach and struggles carried out by *campesino* organizations and the *campesino*–environmentalist group, and those linked to the Ituzaingó trial and the anti-Monsanto demonstrations. The former organizations show a deeper understanding of the political and economic reasons underpinning the expansion of agribusiness, as well as a greater awareness of its main social and environmental consequences. It is basically a political struggle for land, water and the ecosystem services on which *campesino* livelihoods depend. They directly confront the political foundations on which agribusiness rests, and their political ideas and their views on the issues at stake were clearly expressed during the discussion of the forest law. The latter group, by contrast, appears to be less organized and more heterogeneous, protesting mostly on environmental issues, specifically on the health hazards posed by agrochemicals. So far, they have been unable to articulate a well-founded criticism either of agribusiness or of the political model that supports it. Rather than confronting what is actually causing the problem, they are protesting against some of its externalities.

ENCLOSURES, NATURE AND CONFLICTS

Just as is happening now, in the late nineteenth and early twentieth centuries, capitalism also expanded in non-Pampean areas of the country. At that time, foreign companies were carrying out exploitation of timber and tannins (Zarrilli 2008). The Province of Córdoba also took part in that first wave of capitalist expansion (Díaz 1987), and many of the *campesinos* still farming in the province are descendants of those who worked for these companies and decided to stay once the activity became unprofitable and the companies left (Silvetti 2010).

At that time, it was only the trees supplying high-quality timber and tannins that were felled, and the basic structure of the forest remained as it was before the exploitation. But the present expansion has a much more profound and systemic effect on ecosystems, and is producing a fast and intensive appropriation of natural resources. The current expansion of agribusiness leads to the removal of native vegetation and focuses on the appropriation of the single most valued ecosystem service: soil fertility. This process is occurring at high rates, and on soils that are unable to withstand continuous cultivation (Tapella 2012). This is not only producing an abrupt change in the structure of the ecosystem and depleting soil fertility, but is also compromising its ability to support rural activities in the future. New modern technology and managerial practices are playing a key role in the process, since they allow a rapid and efficient transformation of natural capital into economic capital. Thus, the expansion of agribusiness has developed a novel accumulation strategy that not only generates a series of socially and environmentally negative impacts in the short run, but also compromises the future provision of key ecosystem services. Even if a new political context emerges and new power balances allow *campesinos* to reappropriate those lands, they will not be able to produce the kind of goods they used to and that they need for their livelihoods. Therefore, the current process of accumulation by dispossession also affects the future, and *campesinos* are not the only ones being dispossessed. Agribusiness is also dispossessing future local and remote societies, which will no longer benefit from the ecosystem services produced by these native forests. In short, the process of enclosure not only implies the separation of the rural poor from their

means of production, but it also produces a profound squandering of natural resources that affects current and future generations (Araghi 2010).

Capitalism lacks feedback mechanisms to counter environmental degradation (Foster 2002). In fact, capitalism does not need or want that feedback, and expands without paying any heed to the environmental costs that it generates. Its profit-maximizing logic does not allow it to internalize environmental (or social) costs, since that would imply an increase in production costs (O'Connor 2001). Therefore, negative impacts and externalities are transferred from private to public domains, and private costs become social costs (Galafassi 2012). All this describes precisely the process of accumulation by dispossession observed in the Province of Córdoba, and it becomes even worse when the expansion occurs on leased lands. When it comes under criticism, the strategy of agribusiness is first to focus on disguising or minimizing its negative impacts and, if this is not possible, it challenges criticism by stating that it is ill-founded, or claiming that the critics have an anti-agribusiness agenda, or that they are attempting to justify their actions on moral grounds (e.g. the need to feed a starving world). In Córdoba – and, in general, in territories with weak governance and/or with laws or governments that favour such an expansion – the environmental and social impacts are at their greatest.

But it is the very way in which agrarian capital expands that provides the means and strategies for *campesinos* to resist (McMichael 2006). Enclosures or reappropriation processes may be one-off events, but they are determined by the wider historical political processes governing society. Continuous tensions build up between, on the one hand, forces trying to generate new enclosures and, on the other, those who resist dispossession or foster reappropriation. Therefore, dispossession and resistance (or reappropriation) are two sides of the same coin, and are continuously fighting against each other. Corporate agribusiness and *campesino* movements are the two main contestants in this dispute. *Via Campesina* is perhaps the most radical and best-organized resistance to the global food system and corporate agribusiness.

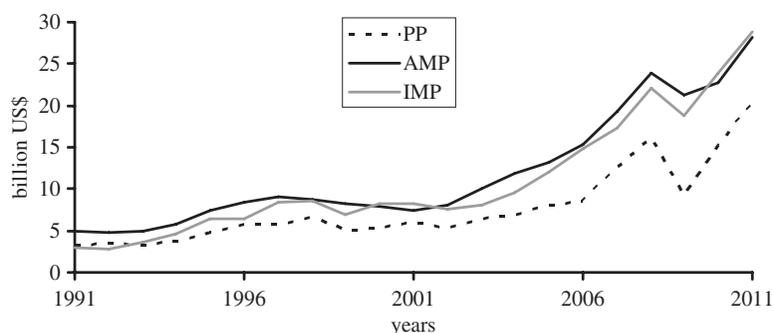
POST-NEOLIBERALISM OR NEO-EXTRACTIVISM?

After the 2001 crisis, the national government implemented a series of rather contradictory policies. As mentioned above, some policies foster employment and social inclusion and aim at tackling poverty, whereas others deepen the path followed by former neoliberal governments. Together with the recovery of the economy, during the past decade there has been a noticeable process of capitalist expansion that has focused on the appropriation of nature. From similar perspectives, but referring to different realities, this has been analysed by several authors in Latin America: Svampa (2006, 150) describes this stage as 're-primarization of the economy', Gudynas (2009, 188) as 'progressive neo-extractivism' and Bebbington (2012, 1152) as 'extractive economy'. Gudynas argues that neo-extractivism appropriates nature through a non-diversified productive matrix that produces commodities for international markets. In contrast with mainstream neoliberal governments, the state plays a more active role, redistributing a portion of the resources generated by extractivism through progressive social policies.

Recent figures show that in 2011, the 25 main exporters accounted for 53 per cent of the country's total exports. Out of these 25 companies, 20 are exporting primary products: 12 export agricultural products, six oil and gas, and two minerals. As Figure 5 shows, Argentina's economy seems to be going through a process of increasing use of primary resources.

The growth in exports has been particularly intense since the 2001 crisis. The growth of 'industrial manufactured products' has also been important, which indicates the impact that devaluation had on the economy. Putting together 'primary products' and 'agricultural

Figure 5 The primary products (PP), agricultural manufactured products (AMP) and industrial manufactured products (IMP) exported by Argentina (1991–2011)



Source: Ministerio de Economía y Finanzas, Argentina.

Table 4. Cereals, oilseeds and soya exported by Argentina during 2010 and 2011 (expressed in millions of tons and billions of US dollars)

	2010			2011		
	Million tons	Billion dollars	Dollars per ton	Million tons	Billion dollars	Dollars per ton
Cereals	24.7	4.61	186	28.35	8.23	290
Oilseeds	14.78	5.69	385	11.11	5.86	527
Soya	14.18	5.14	363	10.39	4.98	479
Total	53.66	15.44	934	49.85	19.07	1,296

Source: SENASA (www.senasa.gov.ar).

manufactured products' gives some idea of Argentina's dependence on agriculture. Table 4 provides a very focused view of grain exports, which are Argentina's most important agro-export.

Even with the present rise in the export of industrialized products, Argentina's current reliance on agriculture is undeniable. It is also quite likely that Argentina will maintain this dependence for at least one more decade. The national government has recently launched the *Plan Estratégico Agroalimentario y Agroindustrial 2010–2020* (PEAA, Agri-food and Agribusiness Strategic Plan). According to PEAA, by 2020 Argentina will have increased grain production from 100 million tons to 157.8 million tons. To reach this target, PEAA foresees a 14 per cent yield raise (from 3.59 to 4.09 tons per hectare) and a 27 per cent increase in the area devoted to grain production. This will allow primary agricultural exports to augment by 80 per cent (from US\$39 billion per year to US\$98 billion per year). Such an increase will demand the conversion of 39 per cent of current natural forests and pasturelands into agriculture (Ministerio de Agricultura Ganadería y Pesca 2010).³² The government seems to be

³² The provincial government follows a similar 'productivist' approach. Even when it has political differences with the national government, it fosters the expansion of agriculture and it is aligned with agribusiness interests (Silveti et al. 2013). Its environmental record is not good either. In 2005, the provincial government sanctioned

determined to fulfil these goals. Recently, when announcing Monsanto's investment in Córdoba, the Argentine president delivered a speech in New York, addressed to American businessmen:

I was telling the Monsanto people, and they didn't know this, that in Patagonia, Argentine farmers produce, for instance, fodder. In the Patagonian steppe we can see those circles [*caused by centre-pivot irrigation*]. Only with irrigation they are able to produce this top quality fodder. And we do have water in Patagonia . . . This gives us the idea that water, this vital element, is going to allow us to extend the agricultural frontier. (President Cristina Fernández de Kirchner, Council of the Americas, New York, 15 June 2012)³³

The PEAA targets on grain production will only be achieved if there is an important intensification of crop production, or an expansion of the area devoted to crops (or both). Either way, this will have a negative impact on biodiversity and will increase the rate at which soil fertility is transformed into commodities. In turn, this may affect the provision of key ecosystem services and bring about further negative social and environmental impacts (e.g. carbon sequestration, weather regulation or health problems).

Another key aspect to consider is the current discussion of a new seeds law. According to the draft law, the intellectual property of the companies will be acknowledged through patents. Currently, farmers do not pay royalties to seed companies and they save some of the grain as seeds for next season. If approved in its current formulation, the new law will hand over to private companies the last component of the food chain that is not totally controlled by agribusiness.³⁴ Through genetic interventions, corporate agribusiness controls the seeds, which allows them to control the entire process of agricultural production (Nally 2011). Patents legalize the process of dispossession and become both a mechanism for rent extraction and a powerful instrument of social and political power (Zeller 2008). Thus, the appropriation of genetic materials, which are patented as if they were 'inventions', and the imposition of intellectual property rights, are key strategies for the commodification of nature and accumulation by dispossession (Prudham 2007; Kloppenburg 2010; Deibel 2013). In a country such as Argentina that relies heavily on agro-exports, losing control over seeds to agribusiness undermines and weakens its already fragile food sovereignty.

The policies followed by the government after the 2001 crisis differ in many ways from those carried out during the 1990s. They allowed economic recovery and job generation, and they improved the livelihoods of the most vulnerable sectors of society. However, the use of natural resources is rising and the country is showing a growing dependence on agro-exports. The information presented in this section suggests that policies fostering extractivism are (and probably will be) a key component of the political approach followed by the government. Thus, extractivism does not seem to be a one-off strategy followed by the government in order to get out of the crisis. Rather, it appears to be a major component of its economic plan. The current economic model seems to follow a circular rationale. Extractivism generates resources to the government through agricultural exports, a portion of which is redistributed

Law 9219, which forbids the removal of native forests unless this is approved by the Provincial Environmental Office. However, despite the existence of this law, extensive areas were deforested between 2004 and 2010, as shown in Table 2.

³³ See Presidencia de la Nación Argentina, <http://www.presidencia.gob.ar/discursos/25918-almuerzo-en-el-council-de-las-americas-palabras-de-lapresidenta-de-la-nacion> (accessed 6 November 2012).

³⁴ For an updated discussion of the draft law, see Arístide et al. (2013). The document is available at <https://www.box.com/s/40dssrhasv5ivr8vzi9> (accessed 15 April 2013).

through social policies, which increases well-being, which provides the social and political support needed to validate the model. Thus, negative social and environmental costs are regarded as 'collateral damage'.

This model seems to have support not only in Argentina but also in the above-mentioned progressive Latin American countries. However, a series of questions still need to be answered. Is this strategy sustainable? Will the model run out of steam as soon as it runs out the material basis upon which it rests? What would happen if the price of commodities were to decline? Is the government preparing an alternative political strategy that does not depend on the use of primary resources? Is this what post-neoliberalism is about? The evidence presented in this paper does not support the idea that Argentina is following an alternative, new and more progressive path to development that is significantly different from that followed by neoliberal governments. Rather, it looks more like what could be described as a neo-extractivist development model. Its sustainability has yet to be demonstrated.

FINAL COMMENTS

Within the frame of supportive neoliberal policies, agribusiness developed a twofold strategy. On the one hand, it actively participated and lobbied for the development of a legal framework that fostered its interests (for instance, an early acceptance of transgenic crops, or the approval of favourable legislation on the native forests) and, on the other hand, agribusiness had the ability to develop, adjust and consolidate a series of technological and managerial innovations that allowed a rapid and efficient transformation of natural capital into economic capital. This strategy was particularly noticeable in non-Pampean areas of the country, and it played a central role in the recent expansion of the agricultural frontier. The state also had a twofold role. During the 1990s, when neoliberal policies were at their peak, it openly favoured agribusiness against the interests of small farmers and *campesinos*. After 2003, and under a more progressive government, its support has been subtler. The present government does confront agribusiness in some economic arenas (e.g. export taxes), but ignores or underestimates its negative social and environmental impacts. Neither the national nor the provincial governments have produced legislation or direct actions that, in practice, have confronted the expansion of agribusiness activities. Current plans, at both national and provincial level, seem to show that a series of new policies favouring agribusiness are already in the pipeline. In the process, nature is being increasingly commodified and the soils of the non-Pampean areas of Argentina are no exception. The new accumulation strategies followed by agribusiness aim to enclose the soil's riches through commodity production and to integrate it into the global circuits of capital accumulation.

Neoliberalism has created a fertile ground for the expansion of agribusiness. With the complicity of the state and the implementation of new institutional and legal frameworks, agribusiness is succeeding in separating *campesinos* from their means of production and in appropriating soil fertility. The government facilitates and promotes such an expansion because it collects taxes from the export of agricultural commodities. This could be regarded as a successful strategy, since it increases the availability of economic resources needed to carry out social programmes that provide a considerable portion of the political support needed to reproduce its own political power. However, this may be a short-lived strategy since, in the future, the state itself will have to face the social and environmental costs caused by the extractivist model.

Agribusiness has not only seized the new opportunities for accumulation by dispossession created by neoliberalism, but also has helped to create them (for instance, through the

development of the above-mentioned managerial and technological innovations, or by forcing institutional and legal transformations). *Campesinos* were interfering with the process, so it was necessary to separate them from their means of production. Thus, *campesino* territories became the 'object in dispute' of a renewed process of primitive accumulation; and the enclosure of *campesinos'* access to their land and other key resources represents the strategy followed by agribusiness to expand accumulation. The opening up of new land for commodity production, the depletion of global commons, the separation of *campesinos* from their land, the liberation of labour power towards the cities, and the approval of new institutional and legal frameworks are all part of what Harvey (2003) conceptualizes as accumulation by dispossession. The 2020 productive targets presented by the government suggest that, rather than a being a one-off strategy to take advantage of a conjuncture, this will be a major component of the Argentine economy for the years to come.

The following points synthesize the main findings presented in the paper and hypothesize about possible future scenarios:

- (a) Argentine farmers and sowing pools are economically competitive for four main reasons: (i) a favourable cost relationship; (ii) they can get hold of new land to expand into; (iii) the legal system allows them to easily appropriate soil fertility and water; and (iv) because they do not have to account for the negative social and environmental impacts that agriculture generates. In central Argentina, land and wealth concentration is occurring at the price of disaccumulation of the *campesinos*.
- (b) The 1990s offered an adequate political context for the development of a new model for agribusiness in Argentina. Industrial agriculture provided the technological instruments; land leasing, contractors and sowing pools supplied the managerial know-how to farm large areas; and neoliberalism offered the political and legal framework that gave social legitimacy to the whole process. Acting together, these three components set the basis for the current stage of accumulation by dispossession. Therefore, when the 2001 crisis broke, agribusiness had a proven technology, the managerial experience needed to expand, and a favourable juridical and political context. The crisis provided an opportunity to those economic sectors trading goods in international markets. After the devaluation and a series of years with favourable weather and high commodity prices, agribusiness made extraordinary profits and accumulated capital surpluses that needed to be invested somewhere else. The non-Pampean territories occupied by *campesinos* and covered by 'unproductive' native forests represented a golden opportunity to expand accumulation. In that moment, most of society was too busy trying to navigate through the crisis and had no capacity to respond to the strategy adopted by agribusiness. By the time the worst of the crisis had passed and the affected sectors had become more aware of what was going on – and had become more organized in order to resist – the process was already consolidated and agribusiness had taken control of an important part of those territories. Thus, the crisis not only affected the ability of the poorest sectors of society to react and resist capitalist expansion, but it also provided favourable conditions for such expansion. In other words, the crisis helped to create the very conditions for accumulation by dispossession.
- (c) However, some social sectors resisted the model. The most noticeable protests were led by rural actors, in particular *campesinos* allied with other anti-agribusiness groups. They are the ones who presented the most articulate and grounded arguments to confront agribusiness and the political and economic model that supports it. More recently, urban populations have also raised their voices against the process. But they seem to focus

mostly on the health risks caused by agrochemicals, and on other negative environmental effects. Until now, they have been unable to produce an articulate political discourse capable of confronting the economic model. But this process is in its infancy and more time is needed to see how it will develop. Health hazards posed by pesticides are one of the few loose ends that agribusiness had left, and probably a promising one for the anti-agribusiness groups interested in generating awareness, organization and resistance.

- (d) The expansion of agribusiness over native ecosystems and *campesino* livelihoods is yet another twist in the process of accumulation by dispossession that stems from historical social, economic and political inequalities. The land-use changes observed in Córdoba Province over recent decades are not the consequence of 'natural' causes. Rather, they are the result of power asymmetries, which were historically cast and nowadays are framed on wider, ongoing processes of accumulation by dispossession. People's organization appears to be the most likely strategy to gather the power needed to confront the economic and political interests that underpin dispossession. It remains to be seen whether rural and urban social struggles, such as the ones described in this paper, will be able to gain momentum and gather the power needed to confront such interests.
- (e) From a historical perspective, the expansion of agrarian capital in the Province of Córdoba has produced two major events of accumulation by dispossession. The first one occurred a century ago, when the native forests were depleted of the most valuable timber species, which were used for charcoal, tannin and railway sleepers (Díaz 1987). The second wave is happening now, with the expansion of agribusiness over non-Pampean regions. This time, agrarian capital is focused on an ecosystem service that is much more crucial for ecosystem functioning: soil fertility. Using modern technologies for crop cultivation and cattle rearing, agribusiness is cashing in the soil fertility that the native forests have accumulated for centuries. This is deeply transforming the functioning of the ecosystem and curtailing the future provision of ecosystem services for both local and remote societies. Agrarian capital feeds on nature, choosing the most valuable ecosystem services in each historical period. Agribusiness, with the connivance of the state, is carrying out the largest-ever transformation of natural capital into economic capital in the history of the region.
- (f) The PEAA targets for 2020, the approved laws aiming at 'protecting' the native forests, the recent presidential speech in New York highlighting Patagonia's farming potential, the new seeds' law to be approved shortly by Congress, Monsanto's release in Argentina of the gene Intacta RR2 PRO and Monsanto's construction of one of the world's largest seed plants are facts that seem not to be disconnected from each other. The evidence provided in this paper, framed in the process of capital expansion currently under way and described above, gives grounds to argue that Argentina is on the threshold of a new and deeper stage of agrarian capital expansion and economic concentration; this time operating on a much larger scale. If this process finally develops, it will become both another phase of accumulation by dispossession, and a missed opportunity in the search for a more equitable and sustainable path to development.

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