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The frontiers of genetically modified soya in Argentina. Possession rights and new forms of land control and land governance.¹

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Introduction

There is no other region in the world like South America that has devoted such a large area of land to a single genetically modified (GM) crop. By 2009 the area covered with GM soya in this region was around 40 million hectares (Domínguez & Sabatino: 2010). GM soya cultivation occupies 15% of world's agricultural lands, within that, 29% belongs to soya plantations. Argentina is the world's largest exporter of soybean oil and soybean meal – supplying about 45% of the world market - and the third country exporting soybeans. Adding these three products it is the third largest soybean producer in the world after the United States and Brazil. Its main customers are China and the EU. In 2009-2010, Argentinean soybeans production reached a level of 54 million tons, covering an area of about 19 million hectares - more than 50% of total agricultural land of the country, even reaching areas outside the Pampas humid lands, and moving to ecologically vulnerable semi-arid and tropical areas. This trend may be expanded even more within the national territory and beyond. The expansion of the soya frontier is more than simply a change of land use: it is a basic transformation involving new technologies (zero-tillage techniques), new power relations (large companies taking over), and a shift from labour-intensive to capital-intensive production regimes, and is being accompanied by new dependencies (the reliance on a small number of firms that provide agrochemical packages). The rapid expansion of the soya frontier also puts pressure on the land, leading to speculation; it is also seen as a manifestation of land grabbing.

In a global context of increasing commoditization of land and expanding frontiers of land control (Peluso & Lund: 2011), access to this resource in Argentina is under increasing pressure due to expanding Genetically Modified (GM) agriculture and its close link to the expansion of other agro-industrial activities –such as cattle and timber production- and growing speculation with land value. In core agricultural Pampean areas—and more recently in the Chaco region provinces- growing international demand for soya-derived products, combined with low transaction and direct costs -facilitated by intensive incorporation of GM and zero-tillage technology, as well as a particular history of landed-based relationships (Borras: 2010)- has stimulated the rush for land to produce soya. Therefore Argentina has become a paradigmatic country as to how this expansion occurs. Conditions that made this expansion possible included the dissemination of direct tillage technologies, favourable international prices, changes in the scale and organization of agricultural companies (including new forms of land administration and the concentration of control), and the availability of new land through deforestation (Paruello, op.cit). Soya expansion was also promoted by the government as a 'green' way to increase foreign currency reserves and to boost rural development and energy self-sufficiency.

Since the outbreak of transgenic (GM) soya cultivation, the dynamics of control over land have changed considerably in Argentinean rural areas. The configuration of a new bundle of powers (Peluso & Ribot: 2003) has allowed to expand the frontiers of land control and, at the same time, modify and complexise the ways to gain, maintain and claim access to land (Peluso & Lund: op.cit). After the GM soya model consolidated (and became hegemonic) in the core agricultural areas of the country (the Pampean region), the 'soyaization' frontier, has been advancing into the Chaco region, putting pressure on land and other natural resources like water, forests and native vegetation areas (monte), as well as threatening or displacing peasant economies and indigenous population. In this context, in addition to questions about land use change and land access, the expansion of new extractive agro-industrial activities, such as GM soya cultivation into socially, productive and biologically diverse regions such as the Argentinean Chaco, raises questions about new forms of land

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control and land governance: what matters is not only who owns, who works, and who gets the benefits of the products coming from land, but also how mechanisms of control over land (power in practice) are built, achieved and contested.

GM soya territorial expansion developed relatively unregulated for two decades in Argentina, with the rule of private interests in alliance to some state powers, leaving its regulation, pace and direction to market forces. In this sense, soyization also contributed to the generalization of a certain pattern of land use change and land 'administration', transforming landed based relationships widely (Borras: 2010) - including new alliances and tensions among social groups- and to some extent, reshaping society-nature relations (Escobar: 1996; Bryant: 1998). In addition, recent expansion into the Chaco region shows a process that is even more visibly transformative of social and environmental relationships. New land users find access to land relatively easier in the Chaco region through cheaper prices, less regulation than in pampean areas, and small producers with precarious tenure situations. At some point, for investors, opportunity costs of acquiring land in this region by purchase or dispossession of peasants (fraudulent or legal) seems to compensate unstable yields, climate risks, the cost of vegetation clearance and higher transport costs in comparison to core regions.

In contrast with the Pampean region, where soya advanced at expenses of cattle growing and diversified grain production, GM soya is advancing in the Chaco at expenses of forests, native vegetation, on one side, and peasant and indigenous economies on the other. These two frontiers -which are not always separable in reality- have the particular characteristic of being contested and therefore is at the moment the object of multiple governance challenges. Although also still a relatively unregulated process, land governance dynamics have been taking place at very different levels, ranging from enforcement of forest protection by law, to territorial resistance by grassroots social organizations, and including private and public led technological development to turn 'marginal' areas into productive lands, as well as the emergence of complex networks of state-civil society actors.

In Santiago del Estero province, the judicialization and politization of "possession rights" has become a field of contestation and governance challenges in relation to the advance of the agricultural frontier, a process lead by soya expansion and followed by other activities such as cattle growing and mere financial speculation. At least, the success in gaining consensus that GM soya expansion had in the core region seems to be contested in Chaco provinces. Here dynamics involving tensions between 'possession' and 'property' rights, and consequently social organization, judicial and political strategies to defend peasants' access -and claims for institutionalization of this defense- have become a new space for land governance, that could challenge dominant discourses legitimizing processes of commoditization of land and privatization of nature.

The article attempts to understand how control over land (power in practice) is built, achieved and contested in the context of land transfers involving commercial pressure over possession rights in Santiago del Estero. In this province new forms of land control - vis a vis expansion of the speculative, agricultural and cattle frontier- are changing and involve new relationships while using mechanisms to gain and maintain control. Following the framework of Peluso and Ribot (2003), we can say that in the process of GM soya and cattle expansion into the new frontiers, some actors gain access to land, at expenses of other actors' access and this happens through a group of different mechanisms which range from voluntary purchase to violent evictions. As shifts in land control in the frontier involve pressure on possession rights, we observe different mechanisms of control, mainly increasing pressure on peasant population in direction to dispossession and enclosure.

This process of increasing commoditization of land implies a complex bundle of powers, which translate in differences in capacities of gaining, controlling and maintaining land access. In a context in which shifts in land control put extra-pressures on possession rights of peasant population, we show with a typology of land transfers/deals how mechanisms of control, such as different forms of pressure and enclosure, emerge in the core of these land transfers, which may sometimes be presented or interpreted as win-win deals. Land governance has to do then with degrees of land control held by different actors and with the emergence of multi-level and multi-actor spaces to address the tensions among involved social groups. Our argument is built around the idea that the shifts in the frontiers depend on particular mechanisms through which control over land is maintained: one of them is **enclosure**. The other mechanism illustrated by this typology is then the different forms assumed by material and perceived **pressure** in order to gain access to land.

We understand social reality as a product of a complex construction. In our research we aim to approach social reality in a way that allows us to understand how the frontiers of commoditization of land manage to expand as a field of negotiation, tensions and conflict. Common and confronted interests, as well as unequal power relations may lead to conflicts and the emergence of processes of land governance. In order to capture the dynamics of land control in the frontiers we have constructed a typology of land transfers occurring since the 'soya' boom in the Chaco started, around 2002. This typology does not only involve acquisitions for soya cultivation but, more generally, addresses a process of commoditization of land and natural resources, which has been catalysed by soya expansion into this region. Particularly for Santiago del Estero province, in a context in which shifts in land control put new pressures on possession rights, the typology intends to show how mechanisms of control, such as enclosure, emerge in land transfers which may be presented as win-win deals. Land governance has to do then with degrees and trade-offs of land control held by different actors and with the politics of multi-level and multi-actor spaces to address the tensions among involved social groups.

The main empirical source of data for the analysis comes from the construction a typology of land transfers. The types are built considering 'types of rights transferred', control transfers, types of compensation and mechanisms of control applied. The dividing variable is type of contract between parties. The order of the categories has to do with increasing level of conflict. This has been built in on information from interviews and previous research on the subject and is based on transfers with presence of holders of possession rights among the parties. Sources of information are from 20 semi-structured interviews with qualified informants –privileged actors and/or observers of the processes under study- from state institutions, civil society, peasant community members and leaders and private actors, as well as participant observation of community meetings, recordings of negotiations between investors and community members. The interviewees were selected through (*a combination of purposive and snow ball sampling: Purposive sampling is described as a random selection of sampling units within the segment of the population with the most information on the characteristic of interest*²-*The inherent bias of the method contributes to its efficiency*). It also involves the analysis of documents, local press, secondary sources of information and the contribution of previous research on the subject.

The first section of this article presents a historical a contextual background on agricultural frontier expansion, in particular drivers of GM soya monoculture development, push and pull of cattle process and the dynamics of valuation of land in the current frontier of the Chaco region. Historical processes of *soyaization of the countryside*, *pampeanization* and *agriculturization of the Chaco* are key for understanding current dynamics at the frontiers. Section 2 describes frontier shifts in the Chaco and Santiago del Estero province taking into account new coming actors, their logics and the situation of 'the locals' -in our study, holders of possession rights. Section 3 refers to land tenure, access and control regimes in Argentina and in particular gives an account of the specific character of the tension generated in practice between 'property rights' and 'possession rights' to land. Later we provide evidence and analysis on how control and access are lost and maintained when these tensions actually take place. We pay particular attention to mechanisms of control such as pressure and enclosure, as well as the role of knowledge, technology and institutions. Section 4 will give a broader view of the governance of land acquisitions in the Chaco by contextualizing power relations and regulation dynamics playing a role in the frontiers, as in Santiago del Estero- possession rights, and social and political organization and judicial strategies around them, can be interpreted as an emergent space for land governance within the relatively ungoverned field of expansion of the frontier of land commoditization into the Argentinean Chaco region.

1. The context of frontier shift: access and commoditization and technology

Access to land through private property consolidated in Argentina during the nineteenth century. In the Pampas region property was concentrated on large estates

² Cuartera, J.M. & Barrios, E.B. (2006) Estimation under purposive sampling, in *Communications in Statistics Simulation and Computation*, Vol. 35, Issue 2, pp. 277-284.

(latifundios) through a process of 'primitive accumulation', that resulted from military campaigns against indigenous peoples, specially during XVIII and XIX centuries. However, in the north and south of the country, remained a number of indigenous reserves and a range of colonial land access figures. By the early twentieth century the state encouraged 'grabbing' policies through the process of colonization; this is a period in which several mixed forms of access to land emerged and coexisted with the early development of a land market. In parallel regional economies started to develop, like the case of the *quebracho colorado* industry in northwestern Argentina. In this period the military campaigns achieved the surrender of the indigenous peoples, while settlers, many of them European immigrants, and owners of large states consolidated as the new actors representing rural life.

In the twentieth century Argentina, together with countries like Australia, Canada and the United States, became a major supplier of meat and grain to the world economy. Furthermore, these exports, beef, wheat, corn, sunflower, etc. - were also staples of popular mass consumption in the domestic market. This was primarily Pampean production, while production from non-pampean regions like sugar, cotton, yerba mate, the so-called industrial crops; fruit and wine were almost exclusively oriented towards the domestic market (Teubal: 2006). During the period 1914-1960 the modalities of access to land became more complex and at the same time more flexible with the emergence of figures such as 'accidental contracts', the 'de facto occupation' with and without permission, the 'aparcería' (partnership), which allowed some producers scale up production without purchase of land. At the same time many small and medium producers could access land through 'frozen rental' policies and a ban on evictions³. In this context, new actors such as the 'contratista' (machinery owners) appeared, at the same time that the group of medium-sized producers, who benefited winning in scale by leasing and buying cheap land gained some relevance. This is the moment in history when the Pampean economy became predominant and the most representative of Argentina in the international order. At this stage, in northern Argentina the cotton economy consolidated while European settler groups became beneficiaries of grants of public lands (Barsky, 2008). Mixed modes of flexible access to land drove slowly towards the consolidation of a process of re-concentration of production from the decade of 1960, also driven by the demands imposed by technological changes⁴. In fact his process involved a de-concentration of ownership without dispersion, ie. greater concentration of production units, in particular among medium-sized producers⁵. During this period, the national government promoted import-substitution industrialization (ISI) policies, together with a flowering of regional economies, which would enter into crisis with the introduction of neoliberal policies since 1976.

Since 1991, in the context of Washington consensus, Argentine state's role changed with a series of structural reforms that affected the agricultural sector curtly: convertibility law, domestic market deregulation, elimination of export taxes, loss of regulatory institutions - such as national Grain Board (Junta Nacional de Granos) which used to have an important role in the support of minimum prices for domestic products, a complimentary reduction in train transport, along with strategies to increase productivity per hectare through technological innovation and investment in capital goods (often imported). With these reforms, involving a drastic shrinkage of state support, many producers fell outside the system. An actor who took sidereal importance is the contractor of machinery, which appeared at this stage with more sophisticated commercial figures (sowing pools) than in the past. These ceased to be individuals or medium-sized service companies, to become large companies and investment funds specializing in establishing and managing the use of the technological package, being able to control large tracts of land, and the whole the production process. Technological innovation, complexity of forms of access to land and new forms of organization of production were the factors that make intensification of agriculture and expansion of industrial crops possible.

These reforms, and devaluation of currency in 2002, shifted the balance back to agricultural profitability. In Argentinean core region provinces, control over land has been re-

³ Thus, this period verified a decrease in the average size of land ownership - from 355 hectares to 272 hectares - as well as a drop in the price of land, together with credit policies, increasing access to ownership of these sectors (CNA: 2002).

⁴ The average size of production units between 1960 and 1988 census went from 273 to 374 hectares (CNA).

⁵ Although 'de facto occupation' situations were only recorded statistically in 1988 agricultural census - where occupants appear as forest (monte) users and goat breeders- since the 1960s, especially in extra-Pampean regions, there was a growth in importance of occupation of state and private lands.

gained by traditional large landowners as well as companies which based their control over vast areas of land, through a particular production model based on a combination of renting in land, low-tillage technologies and Monsanto's Round-up Ready soya. In the Pampas, technological innovation, high international prices and a particular process of redistribution of land control, made the introduction of large-scale industrial agriculture and particularly GM soya rather cost-efficient, profitable and less risky than growing other crops and raising cattle. They managed to gain scale thanks to renting agreements with smaller tenants that were only capable of getting out of the crisis by allowing others gaining control over their lands.

1.1 Soyaization of the countryside

In Argentina GM soya firstly expanded its frontiers at expenses of cattle ranching lands in the Pampean region –as part of a more general agriculturization process - and at expenses of native forests and 'monte'⁶ (Paruelo et al: 2005) in non-pampean regions. Conditions that made this expansion possible included dissemination of direct tillage technologies, favourable international prices, changes in scale of agricultural companies, including new forms of land control⁷ and from the 1990s, the availability of new land through a new wave deforestation (Gaspari & Grau: in Paruelo: 2005).The neoliberal political and institutional context for the introduction and adoption of these technologies in the context of a globalized agribusiness, were instrumental in the development and expansion of GM soya in Argentina. But, in addition to direct tillage technologies and introduction of GM packages, a third element must be added to this equation that made possible the Argentinean soya boom, and that has to do with the modalities of access to- and control over- land resources (Goldfarb: 2010).

In terms of land use change, GM soya has become the predominant choice for Argentinean farmers and this happened in only a three-year period between 1997 and 1999 and already in 2002 Round up Ready Monsanto soybeans were 99% of total soybeans produced with an average yearly acreage increase of 2 million hectares in the same period, a pace of adoption that nearly had no precedence in the world. Farmers choices for GM soya in comparison to conventional soya were not based necessarily on yields - where conventional soya still may be advantaged - but on compatibility with no-till systems, easier field administration and simplicity of weed management (Benbrook: 2005, quoting G. Gobocopatel's presentation in the workshop "transgenincs in Argentine agriculture, Buenos Aires, 2002). The introduction of GM seeds facilitated pest control over large areas of land and made expansion in scale much more viable. On the other hand, producers became highly dependent on herbicides and fertilizers, leading to an increase in general herbicide use up to environmentally and economically unsustainable levels. Meanwhile the development of new GM seeds allowed soya cultivation on lands with very different soils and fertility types, as well as in climately diverse regions, increasing the security of investments.

1.2 Agriculturization and Pampeanization of the Chaco.

Current dynamics of expansion of GM soya in Argentina's Chaco region (Map 1) can only be understood in the light of the agrarian history of recent decades and particularly that of how the permanent cultivation of GM soya became prevalent in the Pampean Region and how land access relationships and control over land was characterized there. Currently both dynamics coexist in parallel, but are also interrelated, particularly with the recent involvement of Pampean actors and land control practices in land acquisitions for soya and cattle in the Chaco region, together with the displacement of pampean livestock to the north of the country.

Map 1. South-American Chaco Region

⁶ Popularly designates non-cultivated land with native vegetation that could include a range of types and density of trees, bushes, plants, but also designates a full eco-system, which are constitutive of peasant livelihoods in northern Argentina.

⁷ The role played in land control by a complex array of land tenure arrangements and upcoming actors such as sowing pools and machinery contractors will be elaborated later in the article.



Although very much connected to process occurring in the Pampean region, dynamics of agricultural frontier expansion had a different character in the Chaco region. Historically cotton and timber production developed in an enclave, while creole, peasant and indigenous population had remained in the land, when the companies that hired them, abandoned the activity and left the region in different moments of around mid 20th century. In Argentina, unlike other Latin American countries, peasants were not limited to basic food production for domestic consumption but, in the pampas regions, joined some of the most important agrindustriales chains as suppliers of inputs and labor (Barbeta: 2009, quoting, Tsakoumagkos: 1986). When these industries entered in crisis, peasant families, who did not have land titles, stayed in the lands they used to work and continued living from extensive cattle growing, small-scale agriculture and forest resources. In this sense, holders of possession rights and of rights to indigenous territories, are not that frequent in the Pampas, while they are still very relevant social groups in northern provinces. While the expansion of soya has concentrated, in quantitative terms, in the Pampas region, the scale of territorial changes produced by this expansion was much greater in extra-Pampean regions. In the Argentinean Chaco the advance also occurs over native forests (Slutzky: 2005) -carob tree and quebracho- and over small farmers' economies, -which mainly developed on occupied land under weak tenure situations -among them the *'possession'* status - generating commercial pressure on these lands, tension with local land dwellers and often, open conflict.

But while *'soyaization'* had displaced cattle from the core region towards the north, and *'agriculturization'* of the Chaco had brought soya into forests, indigenous and peasant lands, a third process/dynamic of *'pulling-in cattle'* is also part of the puzzle. For instance in the province of Santiago del Estero (Map 2), the dynamization of the land market introduced with the *'soya boom'* in the end of the nineties, quickly left no *'empty'* lands for agriculture to new investors. In this case *'empty'* would mean that financial operations with land during the soya boom (2002-2007) have been dealt among private buyers and sellers, while large scale soya plantations were relatively easily developed since these lands were the best in the province (mainly referring to availability of water), easily controlled and accessed through purchase in a growing land market; and easily cleared -as forest protection and territorial planning legislation was not yet in place⁸.

Map 2. Province of Santiago del Estero, Argentina

⁸ Interview with real state businessman in Santiago del Estero capital city, December 2011.



Once the way was paved by soya, as a pull-in process facilitating the increasing commoditization of land and forests, cattle growing activities also raised in Chaco provinces mainly on remaining lands, which are considered as 'marginal', or not so apt for agriculture and, in general, inhabited by holders of 'possession' rights. Therefore soya expansion operated in both a 'pushing and pulling cattle growing into the Chaco provinces. These two combined processes are shown in national statistics as an increase of 2% of heads stock in the northern region, being Santiago del Estero one of the most affected provinces in terms of land use change as well as in terms of upcoming of investors from other provinces, increasing the cattle-heads in a 40% between 1988 and 2002 (González, Román & Bilello: 2010).

At the same time, the land tenure model which combined ownership with other flexible forms of access characteristic of the Pampean region, is also becoming more common in the Chaco. This process that has been described by most authors as the 'pampeanization of the Chaco'⁹, concentrating production in larger units, together with the presence of producers with a more entrepreneurial profile and the introduction of the GM + direct tillage technological package. In particular the figure of 'accidental contract' has been instrumental as a strategy to enlarge production units of soybean, wheat, sunflower and livestock. Thus, the expansion of agriculture and particularly livestock and soy is not necessarily linked to large properties in the cadastral sense, but to large production units, with increasingly concentrated control. This extensification and concentration of the production in the hands of former latifundio owners as well as sowing pools, was possible through the combination of different tenure figures -mainly through land leasing, with the appearance of the figure of 'small rentier'. The particular type of relation between sowing pools and rentiers shows that access and control does not necessarily mean property and that "some people and institutions control resource access while others [even those who have property] must maintain their access through those who have the control" (Peluso and Ribot: 2003).

At the beginning of the soya era, in the Chaco provinces, individual entrepreneurs could afford investing in land, in an increasingly dynamic market. But recently prices went so high that only larger extra-provincial and extra-regional companies, investment pools and foreign investors have been displacing local capital on the demand side. In a context of rising land prices, only bigger pools are able to afford investments of 40 to 50 thousand hectares. In many cases, these are only speculative investment funds, which acquire land with renting purposes. Those leading this process are mainly producers from pampean provinces, such as Buenos Aires, Córdoba and Santa Fe, accessing and controlling cheaper land in northern provinces. New land users find cheaper land, less regulation than in pampean areas, and small producers with precarious tenure situations. Nevertheless, investing in the Chaco has costs of, deforestation, transport, climate instability and dealing with conflict with holders of possession and territorial rights, but it still seems that cheap prices and short term benefits compensate these costs.

The process of "pampeanization" of Chaco was partially facilitated the introduction of the land leasing model to gain scale and control of larger areas of land under production, while reducing risks and costs. In this area is where investment groups, trusts and sowing pools are relevant. Many of them coming from outside the agricultural sector and the Chaco region, they work as investment funds for many smaller investors, speculators and, in many cases, enriched urban professionals. The logic is to rent land from smaller holders and

⁹ Mixed forms of access increased nationally by 25% in the period between 1988-2002.

distribute benefits at the end of each agricultural cycle, moving investments to other sectors when risk is perceived. Foreign investors are also shareholders in these enterprises. The strategy of these funds and pools is to diversify production regions and contract machinery and services to third parties to avoid risks, and here is when interest in Chaco lands appears. An important role is placed also by emerging locally based machinery contractors, storing services and local input sellers who facilitate logistics, reducing costs for agricultural and cattle ranching companies. In the Chaco, the Pampean model is at some point reproduced, when small rentiers play a role in facilitating land control by pools interested in gaining scale. Once the best and easily accessible lands were already under the control of large soya companies, some extra-regional and middle local capitals decided to invest in intensive cattle growing. To this picture we can add actors that are gaining weight in terms of setting the conditions for attracting more investments.

Therefore markets putting pressures on Chaco's lands –and producing shifts in use, access and control- are the increasingly dynamic land market, the growth of global flex crops (Borras: et. al: 2012 [2]) and international demand for meat. Within this logic, domestic and international investors find that Santiago del Estero is a province relatively new in terms of land commoditization or, in the jargon of entrepreneurs, a new target province in terms of 'fields' development'. A first group within this new wave of investors arrived just after the crisis with the currency devaluation in 2002, as cheap land and weak land governance attracted extra-provincial investors. As mentioned before, the consolidation of GM soya hegemony in the Argentinean Pampean region displaced traditional cattle ranching to other regions, pushing cows to the North. But also GM soya jumped directly into Chaco forests, based on cheap land, lack of regulation supported on discourses of progress and the myth of 'empty lands' (GAIA: 2008) pulling new actors, such as real state, speculators, intensive cattle growers and other soya producers into the 'monte', including those of local, extra-regional and international origin.

2. A new frontier of land control in Santiago del Estero, Chaco region. Actors and logics

In Santiago del Estero province recent (re)gained interest in, and valuation of, land that had been considered unproductive or marginal in the past, is attracting investments for soya, cattle, timber and speculation. With the renewed commercial interest on the lands they occupy, peasant groups find their access to land and forests threatened or increasingly controlled by more powerful actors -local, trans-local as well as foreign. In this sense, this province in the Chaco region is among the most affected by the process of 'pampeanization'.

2.1 Who and why?

In the North West of Argentina recent dynamics of land use change have been that of 'extensification' of agriculture, as the cultivated area grew 48% between 1988 and 2002 (CNA: 2002), especially in the provinces of Santiago del Estero and Salta, where estimations state that the agricultural area doubled between 1988 and 2008 (Slutzky: 2010). In both provinces, this process had to do mainly with the addition of native forest lands to industrial agriculture and extractive activities, and more recently to intensive 'silvopastoral' cattle breeding. This increase in acreage is largely explained by the cultivation of oil crops, mainly soybeans, which in Salta grew 75% between 1988 and 2002, rising from 22% to 45% of the cultivated area of the province (Slutzky: 2005). While in the pampean region movements towards concentration had to do with capital and control over land, with no big movements in terms of changes in property rights, in the Chaco region large areas had been purchased and rented for soya at non-sense prices (Barsky: 2008). The following quote shows how expectations about growing international demand of soya is leading towards a strategy of incorporating more land to production rather than increasing productivity:

“The main inputs to achieve these [expected demand] figures, are adding new areas and increased energy consumption, with the logical controversies it generates. The increased use of agrochemicals and fertilizers, erosion problems are direct effects of increased demand. The variable to maintain this trend is to achieve higher performance. Basing it on an increase in the area is an easy, fast, non-technological and non-intensive solution. Productivity is the opposite. It is estimated that by 2030,

consumption of chicken and pork will grow by 120 million tons, up 67% from the current figure, which will require increased production of soybean meal by 65%, requiring such levels of global performance (2350 kg / ha) 60% will require more surface area over the current 95 million [soya hectares worldwide].” (La Nacion: 2008)

Direct investment in land also involves extra-regional actors, particularly from neighboring provinces such as Córdoba, Santa Fe and Tucumán. However, some authors (Barsky: 2008) do not rule out the importance of local actors. The truth is that, despite rising prices, land in the Chaco region still costs six times less than in the core area, attracting extra-regional actors and producing alliances between medium and large local owners. Our research showed that there also alliances or joint ventures between local and extra-regional entrepreneurs: locals -providing land, knowledge about local control needs- and outsiders providing know-how about field preparation and flex-crops management and markets¹⁰. Another common situation of new land users in most of the northern provinces, is the appearance of ‘absentee owners’ or their heirs who claim property, use and control over lands that are now valued as an investment and that, in many cases, have been occupied for decades by creole or indigenous families, who may have been former workers in timber companies and who got paid with land [de facto, without a title] rather than receiving a salary. In Santiago del Estero absentee owners, who are holders of property titles, return to the region attracted by raising land prices or the interest in investing in agricultural or cattle growing activities which are dealing with good international prices. These owners are local and sometimes extra-regional and re-gain control by investing in the modernization of the land through technological innovation.

In many cases absentee owners [who have property rights over land they go back to] face situations where they find that the land is occupied by holders of possession rights, and with whom they enter in different types of conflicts. These conflicts are formally solved through (re)vindication/prescription trials against these holders and, in a few cases, through pre-judicial arrangements¹¹. Fake absentee owners often obtain property rights through not transparent title transfer processes, by ‘purchasing’ titles to employees of the Property Register and taking advantage of the lack of peasants’ knowledge about rights and access to justice, as well as of their need for money (interview data). Information obtained from 43 trial verdicts coming from the Archive of the provincial Palace of Justice and collected by Barbetta (2009) shows that in Santiago del Estero trials that were initiated before 2002 (around half of the cases) resulted in the benefit of possession rights holders since the person who was registered never showed up. This judicial dynamic changes considerably with the ‘soya boom’ after 2002, when trials became much more complex when alleged owners suddenly appeared in person or through their intermediaries.

Other actors pulled by increasing land prices are real state companies, a range of intermediaries and plain land speculators [often involving attorney bureaus and notaries], whose business is to buy cheap land and sell it at a higher price. Some obscure versions of these figures are busy in obtaining land rights from possession holders [through deceptive arrangements] or providing stolen satellite information to interested potential buyers¹². In addition, the increasing presence of industries such as biodiesel refineries and feedlots also show the emergence of a regional market for the products coming from the recent investments in land as well as a market for the input suppliers. There are indications about development of new local infrastructure (roads, dams), which show state support to the development of these new markets at the regional level. Moreover, foreign capital is expanding in Chaco region provinces, attracted by comparatively cheap land, sometimes acquiring more that 100.000 hectares by a single firm.

Table 1. Characteristics of new land investors. Origin and activity

New Actors	Business model	Relation with "locals"	Conflictivity between newcomers and holders of possession rights
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¹⁰ Interview with local land owner, in negotiation with community of possession rights holders, with intentions of having a mixed-exploitation in partnership with an investor from Santa Fe province.

¹¹ Such as the case of Km 25 community visited in December 2011.

¹² Interview data.

Local	Absentee owners Out-renters	Business model for cattle is the 'ranch' 9Intensive cattle ranching)	Face to face relation with local population	Permanent and face-to-face tension with holders of possession rights. Political 'caudillo' culture works as a form of pressure, but also face to face knowledge makes 'win-win' negotiations possible ¹³ .
Non-Local	Mainly extra-regional [but to some extent also foreign] capital Pampean provinces capital and foreigning. Also absentee ¹⁴	Large scale soya plantations Business model cattle is feed-lot	Impersonal relationship with locals	Avoiding conflict with possessors by direct land purchase from legal owners and choosing the best lands. Anonymity facilitates pressure on locals land users but often leads easily to more violent conflict. ¹⁵

Regarding the process of 'push and pull' mentioned in the previous section, the GM soybean and livestock advance driven by different actors that carry out different types of arrangements to gain access to and control over land. Expansion of soya is characterized by non-local capital, large plantations are run by managers and not by their owners, thus have a particular relationship – both in terms of governance and conflict- with local actors. Also characterized by higher amounts of land, little capacity to generate local employment and local supply of inputs, linking in a particular and limited way to provincial development processes. In territorial terms, GM soya managed to occupy the best lands, since it was the pioneer in this round of frontier expansion, which has been usually gained at the expense of native forests. Differently, livestock production is expanded in the lands called 'marginal' since soya has taken up the best ones. These lands are generally occupied by peasants and therefore the process of acquisition is generally conflicting. Smaller production units are involved in this activity and also the profile of entrepreneurs is different from that of soya. They are not so largely capitalized companies, they are less anonymous to locals and when they come from other provinces, they usually opt for a more face-to-face relationships with the local context. Nevertheless, both of these entrepreneurial profiles are present in conflicting situations with possession rights holders in Santiago del Estero. We will learn more about this type of relation in the next section.

Table 2 Soya and intensive cattle ranching by type of land, size and actors involved

	Type of land	Area	New Actors
Soya	Irrigation zone	Larger areas	Sowing pools/ investment funds/ Pampean and foreign firms
Intensive cattle breeding	Both dry and irrigation zones	Smaller and more dispersed areas	Partnerships local/non-local and strong presence of pampean actors

In territorial terms, soya has occupied the region's more productive land; it arrived in the early 2000s, in a violent and massive way, and in many cases at the expense of the forest, peasants' land and the *monte*. In general, extra-regional investors, with local connections especially in the field of technical support, have dominated the soyaization of the Chaco. In general, the areas targeted for soya investments were easily accessible through purchase, while land conversion was carried out through the deforestation of vast areas, not necessarily empty but probably difficult to control by locals, even if they held rights to the land. The relationship with local people was, in fact, less personalized; investors were generally represented by managers, which has both advantages and disadvantages when it comes to conflicts with the local communities and individuals with weak tenure rights.

Traditional systems of meat production are being replaced by intensive cattle ranches

¹³ As in the case of the community Km25 with a local investor, negotiation is often a strategy of those who don't want to ruin their reputation, specially in the field of politics: "you cannot be a neighbour and be hated" (interview data).

¹⁴ Absentee may include holders of property titles often obtained by inheritance or purchase, as well as non-transparent procedures in a highly speculative market, and sometimes fake titles and illegal grabbers.

¹⁵ For instance the murder of Cristian Ferreyra, a peasant and activist in MOCASE-VC, occurred a couple of days before our arrival to the field, in a context of the impunity given by anonymity and the feeling of not knowing who is behind the material grabbers. When writing this article in October 2012 another peasant activist from MOCASE has been murdered by a hired killer when defending his community from eviction by a soya producer.

due to the growing demand for meat, also triggering processes of displacement of people and forests. This process had an initial phase in higher valued lands –proximity to roads, electricity and water, and preferably without inhabitants. As these areas got scarcer conflict emerged (Busscher: 2012). In contrast, cattle-ranching is dispersed and can be developed in any place. Its development has been the result of the previously described “pull and push” dynamics triggered by the soya boom. As the best and easily accessible lands have been taken up by soya, cattle is developed in the remaining ‘marginal’ lands¹⁶ which are massively occupied by peasant population and therefore generating focuses of conflict. Additionally, the design of the Territorial Planning map, which is the basis of the provincial forest law, gives quite a lot of space for exploitation of this activity¹⁷ (Greenpeace: 2011).

2.2 Over whose lands? People and forests

The national campesino–indigenous movement (MNCI–Via Campesina) estimates that around 200,000 rural families have been forced off their land due to the advance of soya. The provinces where this process has been the most violent are Santiago del Estero and Córdoba, where heavy machinery owned by sowing pools and landowners drove over peasants’ houses and parcels. REDAF documented that around 950,000 people – inhabitants of indigenous and *campesino* territories – are affected by land or environmental conflicts related to the expansion of the agricultural frontier, led by GM soya. Most of these conflicts began in 2000, when the GM soya model reached its height. Many of these groups were occupants and holders of possession rights that, according to Argentinean law, imply a form of tenure security. Possessors of these rights are occupants who have been living on the land for more than 20 years and have performed ‘possession acts’, that is, they have worked on, cared for and improved the land. If these conditions are met, they can virtually apply for land ownership. In the northern provinces these groups are also threatened with the loss of access to the use of forests and common land for pasture.

The rapid expansion of soya monoculture in the Argentinean Chaco Region directly or indirectly involves tension in situations of weak land tenure, such as claims for regularization of possession rights and indigenous rights to territory. This implies massive land use change and pressures over lands whose users have weak tenure rights, or over lands which are being claimed by different actors, such as companies, ‘campesinos’, indigenous communities and landless workers. In Argentina Chaco provinces there is a higher amount of peasants who do not have titles of the lands they occupy and work on, for instance in Santiago del Estero around 75% of peasants are in this situation.

In Santiago del Estero the fall of the caudilist political regime of ‘juarismo’¹⁸ and the take over by the ‘national intervention’, also coincided with a context of expansion of the corporate food-feed-energy regime at a global level, and which Argentina widely adopted since the commercial liberation transgenic soya in 1996. The possibilities that the new technology opened in terms of reducing costs, as well as making available lands that had previously been classified as idle, marginal or not adequate for agriculture generated a new valuation and land commoditization process which added even more pressure on lands occupied by peasant population, where weak land tenure situations –such as possession– became the rule.

The advance of the agriculturization process and the industrial farm model found peasant economies in a vulnerable situation, and had condemned peasant families to a “silent exclusion” (Barbetta: 2009). This was a particular character of peasant groups in Santiago del Estero province, which did not follow the pattern of organization and mobilization that characterized other provinces and regions in Argentina in the past. Following Barbetta, what for decades had taken the character of a silent exclusion of the ‘santiagueño’ peasantry, by the mid 70’s, and mainly from the 80s passivity started to turn into organized social and political action in defense of the right to be recognized as possessor, that is included in Argentine civil code, more frequently known as ‘derecho veinteañal’¹⁹. This process did not

¹⁶ Interview by Msc student Nienke Busscher with real state company representative.

¹⁷ Provincial Law 6841 defines a mayor propotion of the territory as Forest of médium consevation value, painting in yellow areas indicating the possibility of sustainable use.

¹⁸ The political rule of Juarez and his wife in Santiago del Estero during decades, was characterized by ‘caudillo’ power relations and generalized corruption that are even now deeply embedded in the society of that province, although not longer in formal institutions.

¹⁹ For the Argentine civil code (Art. 2351) ‘possession exists when a person (...) have one thing in his power with the intention of subjecting it to the exercise of right of property (the title)’. After 20 years of exercising the owner

happen overnight, and it had a close link with the complex political history of this province, as well as the involvement of actors such as the Catholic Church (social pastoral) and development NGOs, which played a key role in the incentive and support of rural social organization and the construction of a peasant identity, from the active defense of land against growing legal and illegal land evictions.

3. Accessing, maintaining and losing control over land

What are the mechanisms that make land desirable, accessible and easily controllable by some, in the context of expansion of the agricultural frontier in Santiago del Estero?

The usefulness of the theoretical framework proposed by Peluso, Ribot and Lund lies in distinguishing, in a first stage, the concept of 'access' of that of 'property'. Access is closely related to the ability, capacity to gain, control and maintain access to certain resource, regardless of who has the 'right' to that resource, or the 'property'. Moreover, the issue becomes more complex when we understand that there are actors who manage to keep their access to land, and thus continue to benefit, at least partially, from this resource, through a relationship (social, economic, political or cultural) with one who has the real control over the land. Thus, we see how access, property and control are different concepts, which allows us to better understand the complexity of situations in shifting frontiers 'zones'. Access 'refers to a larger array of institutions, relations and discursive strategies that shape benefit flows' (Peluso & Ribot: 2003), and derives from a 'bundle and webs of powers' which can be both coercive and disciplinary. In addition, the idea of control has to do with particular mechanisms articulated by certain actors or institutions to benefit from that resource, land in our case. Following this framework we can observe that in the process of GM soya expansion, some actors gain access to land, at expenses of other actors' access and this happens through a group of different mechanisms which range from voluntary purchase to violent evictions. Ribot and Peluso (2003) argue that mechanisms of access to resources involve ability - a range of social relationships, which can constrain or enable people to benefit to resources - and this ability necessarily involves particular power relations. Power in this case, is understood as *"the capacity of some actors to affect the practices and ideas of others (Weber 1978:53; Lukes 1986:3) [as well as] ... Disciplining institutions and practices can cause people to act in certain ways without any apparent coercion (Foucault 1978a, 1979)"*²⁰.

In Santiago del Estero commoditization of land enters into tension peasant and indigenous livelihood which implies a close relationship with land and forests, and where access has been characterized by a historical occupation without formal titles. One the most visible expression of pressures for shifting frontier control has to do with tensions and open conflict between two types of rights that are part of a contradicting legal framework: property rights and possession rights. Therefore it becomes important to understand how control over land (power in practice) is built, achieved and contested. In Santiago del Estero the expansion of the agricultural and cattle frontier is producing big changes in terms of mechanisms to gain and maintain land control, as well as in terms of a complex processes of legal and political defense of local peoples' rights to land.

Mechanisms of control have a close relation with three fields of action:

Table 3. Dimensions of land control

<ul style="list-style-type: none"> - Knowledge and Technological Change - Interfaces of land transfers/deals - Institutions, power and governance
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3.1 Knowledge and Technological Change

With the massive introduction of the GM soya technological package, this production model started to expand towards areas that had not been considered suitable for agriculture.

intention, the possessor can acquire property rights through a Prescription trial (Civil code Law 4015 - Juicio de prescripción veintañal or Usucapión). Holders of Possession rights also have the right to exercise the defense of possession (Civil Code Article 2470), even using the same force of the attacker in the event that the police or justice (Art. 2469) do not do it on time.

²⁰ Quoted from Ribot and Peluso (2003) A Theory of Access, Rural Sociology, Vol 68, No.2, June 2003.

Examples are Argentina's northeast and the Chaco region, which are vulnerable in both environmental and social terms. Due to new technologies and soft innovations, such as new management models (introducing sowing pools and the leasing of land by extra-regional farmers), the soya frontier shifted towards semiarid areas, such as the Chaco region.²¹ In the last 50 years, 2 million ha of forest have been cut in the centre and south of this region for the cultivation of cotton and soya, leading to environmental degradation.

After its introduction, the use of the GM soya technological package expanded very quickly. Technology has become a tool to control access to land, based on techno-fix approaches to sustainability.²² In Argentina, the total soya bean area has expanded more than that of any other crop since 1996, and especially since the introduction of direct tilling techniques and Roundup (glyphosate) Resistant soya, combined with the intensive use of fertilizers and agrochemicals. This technological innovation made soya cultivation economically feasible, even in agro-ecological zones where soya beans would not grow before. The combination in one package of direct tillage techniques and machinery with Roundup Ready soya is fundamental for expansion to other ecological regions out of the core areas.

In addition, a new way of organizing production through planting management pools, machinery and labour contractors, and storage facilities, allowed decreasing costs through the scaling of production, which in turn generated even more incentives for territorial expansion. Production is increasingly becoming large scale, because medium and smaller producers are unable to make the required investments in technological innovation (new seeds, agrochemicals, less crop rotation, tendency to monoculture and less sustainable agricultural practices). By applying techno-fix solutions, large-scale enterprises have better possibilities to 'correct' environmental and social costs, which they consider externalities of the business model.

In conclusion, technological innovation in Argentina has changed the way in and scale at which land can be devoted to a single crop, cultivated in large production units, and managed by few hands and with almost no human labour. Interested actors, such as seed and agrochemical multinationals, have actively promoted this model, with the paradigmatic case of Monsanto allowing Argentinean farmers to produce and multiply GM soya without paying royalties and for years ignoring the illegal distribution of the seed across the South American region. The commercialization of Monsanto RR soya and such inputs as glyphosate was authorized in obscure circumstances by the secretary of Agriculture in 1996: directly interested private actors performed the scientific evaluations and there was no public debate. The report from the secretary of Agriculture – which did not include a biosafety assessment, was not made public and lacked a peer-reviewed assessment – was approved in just 81 days, and included a large section in English written by Monsanto (Verbitsky: 2009; Robin: 2010). Other regions are going to be opened for soya production through biotechnological innovation. For instance, the Obispo Colombres Experimental Station²³ is working on biotech soya development and the improvement of farmers' practices in the northwest region of the country (Robin: op.cit). As a result, yields have improved in this region, and storage facilities and crushing facilities are moving up north. It shows that technological innovation is a key factor in the advance of the agricultural frontier, allowing GM soya to be produced on various types of land and in various climates.

3.2 Interfaces of land transfers/deals

Recent land acquisitions in Santiago del Estero for soya and intensive cattle ranching are embedded in new forms of control partly related to incorporation of new technologies - opening new production areas for flex crops and export commodities- and new forms of land administration and management, concentrating land control in a few hands. But also as important are the mechanisms at micro(local) level, through which land is being transferred and controlled. In the different waves of frontiers shift, these mechanisms are equally fundamental in making new land available in certain areas, and not in others, and in shaping the output of the transfer in terms of use and control by different groups over land.

²¹ 46% of the Chaco belongs to Argentina, 34% to Paraguay (3 departments) and 20% to Bolivia (3 departments).

²² Levidow, L., Papaioannou, T. Innovation narratives in European agricultural research, Crepe research reports. 2010. http://crepeweb.net/?page_id=339/ (accessed November 2010).

²³ Estación Experimental Agroindustrial Obispo Colombres is an autonomous entity of the Ministerio de Desarrollo Productivo del Gobierno de Tucumán.

In Argentina, land can be accessed through three different legal figures: property, tenure and possession.

Table 4. Argentinean land tenure regime

Access	Mechanisms of Control over Land	Detail
Property (owner)	<ul style="list-style-type: none"> • Direct • Rent out 	In renting out situations: control is to some extent in some other's hands, though access is maintained as benefits from land are perceived.
Tenure (user)	<ul style="list-style-type: none"> • Recognition of ownership in another person (vast range of informal renters, occupants, rural workers) • 	No control, partial access
Possession (possessor)	<ul style="list-style-type: none"> • Possession actions • Owner's behavior/ property intention 	Control becomes weak and access limited when somebody else claims (legitimately or not) to be the owner of the land, in general more powerful actors. This situation can change in direction of securing property and therefore maintain access and obtain, at least partially, control over the land.

These three figures have cohabited and complemented in the Chaco, specially in the period of peasantry 'silent exclusion'. With increasing commercial pressures on land, the end of 'juarismo' and peasant political organization processes, property and possession figures enter into tension around claims for the same lands and competing for the same resources, entering into a process of intensification of landed based conflict. Therefore one of the main emerging conflicts coming from shifting control frontiers has to do with this tension between "property" and possession", when someone holding legal titles over land is not the only one who can claim rights over it when the '20 years law' is put in practice. This law, included in the Argentinean civil code, formally protects those who lived and worked the land for more than twenty years²⁴. The legal figure of 'possessor' included in the Argentinean civil code, further complicates the analysis about the control over land, since 'property' (one of the many forms of access), formally consists of two parts: the possession and the title, the title being a condition for possession to become property.

In a context of increasing commercial pressures, these 'possessors' are confronted with the appearance of actors with property titles of the lands they inhabited for decades, who obtained those titles by inheritance, purchase or non-transparent manoeuvres in connivance with notaries, cadaster and registry of property offices. Beyond the legality of the property title, holders of possession rights can also appeal the law to claim the same lands. In this sense shifts in control over land are being contested individually but also collectively and institutionally, bringing in land governance challenges as well. For many peasant communities and families in Santiago del Estero control possibilities appear to be linked to the figure of possession, which involves a complex process of legal and political construction and defense.

Table 5 . Legal definition of possession rights: body & soul of land access

PROPERTY	POSSESSION
Implies possession	Does not necessarily imply property
Only requires a title to be proved	Property can be claimed and obtained if: <ul style="list-style-type: none"> • Possession actions (body) • Owner's behaviour/ intention (soul)

In Santiago de Estero holders of possession rights have become vulnerable to commercial pressure on the lands they occupy. Mechanism to acquire land from this group could imply purchase of possession rights, which presents the advantage to the buyer who pays a value that is considerably under market value, since property titles are not involved. This type of situation is usual, for example in the Delta region involving buyers from provinces of Buenos Aires y Entre Ríos (Roodhuyzen: 2010).

²⁴ For the Argentine civil code (Art. 2351) 'possession exists when a person (...) have one thing in his power with the intention of subjecting it to the exercise of right of property (the title)'. After 20 years of exercising the owner intention, the possessor can acquire property rights through a Prescription trial (Civil code Law 4015 - Juicio de prescripción veintenal or Usucapión). Holders of Possession rights also have the right to exercise the defense of possession (Civil Code Article 2470), even using the same force of the attacker in the event that the police or justice (Art. 2469).

The following table shows the range of deals/transfers through which land is acquired, accessed and controlled. While in other provinces the provincial state is an important part in the deals, this is not generally the case of contemporary Santiago del Estero (although it was in previous decades), where most of the deals –or the ‘not yet deals’- around land transfers involve private parties, whether they are the owner of the land and a buyer or holders of possession rights *vis a vis* potential land investors. But beyond the transfer itself, there are certain mechanisms of control that determine the terms of the deals, which are the result of relative power positions among actors. These mechanisms condition the encounters between parts, the terms of negotiation and the outcomes of the land transfer. The typology represented in the table shows how access does not necessarily mean control in Santiago del Estero. It also illustrates the conditions in which land control is transferred (pressure of different natures and inequalities in terms of knowledge, access to justice, social organization and economic resources) and the results in terms of one of the main mechanisms through which control over land is maintained: **enclosure**. In this sense enclosure is not only an outcome but also a mechanism for maintaining land control and further frontier shift.

Table 4. Santiago del Estero. Recent types of land transfers/ deals

	Type of transfer/deal	Type of rights transferred	Pressure and mechanisms of control transfer	Compensation	Outcome and reproduction of control
WILLINGNESS AND DISTRESS	A) PURCHASE/SALE INHERITANCE	Individual property right ("Voluntary" /willing seller/willing buyer)	-Raising land values -Technological package -Lack of support to peasant and small holders economies	Monetary	- Re concentration of land control - Increasing commoditization and speculation with land - Homogeneization of countryside
	B) LEASE/ TEMPORARY RENT	Use rights	Access maintained through ceding control to others that are able to gain scale	Monetary In kina	Voluntary though disadvantageous situations emerging from flexibility of contracts.
	C) CEEDING/ DONATION OF POSSESSION RIGHTS	Holder of possession rights becomes a tenant (Voluntary/ Negotiation/ "win-win")	Mechanisms are linked to inequalities in economic, social and political capital for access to justice.	Tenancy in exchange for labour	Creates a particular type of enclosure situation: Loss of access to commons Loss of prospects of accessing property by tenants while new possessors/owners gain the ' right for accumulation by dispossession'
TENSION AND VIOLENCE	D) MEDIATION/ AGREEMENTS i) Give away a bit and receive a bit ii) Comodato ²⁵	Possession rights ceded/ property rights ceded (Voluntary/ Negotiation/ "win-win")	Deception Second best dilemma Social/political organization for judicial, political and territorial defence Inequalities in access to justice	Financing access to judicial process to access property Fast conflict solution No compensation	Possessors loose total or partial control over land and resources Creates a particular type of enclosure situation: Loss of access to commons
	E) CONFLICT THROUGH JUDICIAL PROCESSES i) Adquisitive prescription trial ²⁶ ii) Re-Vindication trial ²⁷	i) Property rights ii) Possession rights	i) Total or partial control gained through property ii) Mechanisms are linked to inequalities in economic, social and political capital for access to justice. Strengthening of possession rights through possession actions	No compensation for looser	Zero-zum output Possession is defended and property rights are obtained Tension continues in the territory (fencing monte, fumigations, pollution of water, lack of access to infrastructure, lack of policies to support alternatives, etc.)
	F) TERRITORIAL CONFLICT/ the 'no deals'	Possession rights vs. Property rights and illegal grabbers	Territorial control in dispute Grabbers: Direct violence (institutionalized violence,		- Physical violence - Intimidation/ deception - Enclosure - Socio-political relations of "caudillismo"

²⁵ Comodato: is a type of contract through which possession rights are automatically ceded by recognizing the condition of 'owner' in somebody else –in some cases the domain owner or holder of the property title, in others somebody that is illegally claiming to be the owner of the land. When this contracts are signed the figure of 'possession' becomes impossible to wield, and the holder of possession rights becomes a tenant who can be eventually displaced from the land.

²⁶ This is the type of judicial process initiated by holders of possession rights against the domain owners (titular de dominio) or the legal person whose name is in the property register but is accused of not behaving as an owner for more than 20 years, while holders of possession rights initiating the trial claim to have. If possession rights holder win the trial they become the new owners of the predium.

²⁷ This is the type of trial initiated by the holder of the property title against supposedly occupiers of the land they own.

			threats, intimidation Possessors Social/political organization for judicial, political and territorial defence Strengthening of possession rights through possession actions	-----	- Organized resistance and territorial, political and judicial defence of peasant land rights - Semi-institutionalized network of possession rights defence and strengthening land governance

3.3 Willness and distress

A) Purchase-Sale deals generally present no open conflict since buyer and seller participate in the land market “voluntarily”. These have been many of the cases of acquisitions during the first years of the soya boom, when private owners were willing to sell land to interested extra-regional investors in the context of what has been a rather paralyzed land market. The dynamization of the market also attracted new investors speculating on raising land prices. Many of these direct purchase situations were done between medium/large land owners and new-coming soya companies and investment funds and swoing pools aiming at gaining scale and/or diversifying production zones. Many of these are middle size producers from the Pampas region, that now seek for new lands in the Chaco to invest their surplus. More recently land has been also purchased, re-gained and re-concentrated to invest in productive mixes, specially for the considered marginal lands, now affected by the Forest Law that defines them as of relative conservation value zones and putting limits to the use of the resource though not protecting the population that lives inside. Typical cases are combined production of agriculture, intensive cattle grazing and payment of environmental services.

B) Leasing deals in the Chaco region had to do with relatively the same dynamic of activation of the land market due to the soya boom, though rising prices has recently discouraged this practice and favored purchase or pushed those renting out to produce in their own fields. But when it comes to lands occupied by peasants ie. holders of possession rights, control over land assumes a different character, since it involves open power inequalities of the two parties, as one of them usually is in clear risk of losing the land. The important issue here is that free land markets do not involve equal part in transaction in terms of the conditions in which they decide to sell/buy, as well as in the terms in which the negotiation takes place.

C) Ceding/donation of possession rights: Although it is possible to find a number of cases where peasants do not regret having got a few ‘pesos’ for a good number of hectares, loss of control over land frequently happens when the rights of possession are sold by bargain prices or exchanged for use (tenant) rights, ceded or donated, constituting a relatively common way in which communities and peasant families lose their control over land and in many cases also their access. First of all, the idea of ‘voluntary deal’ is already problematic if we look deeper into the field. Lack of knowledge of the law and of the fact of being able to claim possession of land is one of the main power inequalities leading to unfair negotiation capacities. In addition to that, intimidation and threat are also common mechanisms used to persuade somebody to cede the land, as Roodhuyzen (2010) also shows for the case of islanders in the Argentinean Delta region, where lies, deceptive contracts and procedures, the use of intimidation and violence are put into practice. In some of the departments of Santiago del Estero, such as Jimenez (interview data) purchase of possession rights to peasants may also work as a pressure mechanism for those peasant families that are surrounded, showing that enclosure may lead to more enclosure.

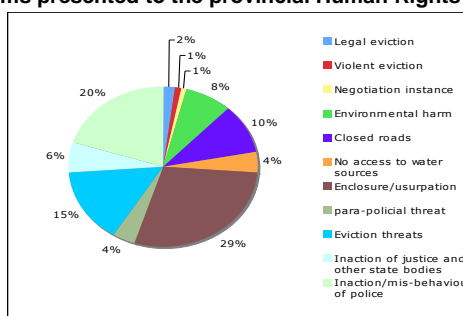
As a counteracting mechanism, in Santiago del Estero social and political organization has worked in order to level the ground in this field leading to a situation in which almost every peasant in the province knows that he or she can appeal to specific local referents, actors and in some cases, institutions, when facing different types of pressures to totally or partially give up land. But this is the bottom-line, and organization takes place at very different scales depending on the localities, with heterogeneous capacities to cope with conflict, while some communities still remain unorganized and therefore more vulnerable to pressures.

However, things have not always been like that in this province. The GM soya boom found the peasant sector still not fully prepared to defend their rights, although landed conflicts were already common in the early '80s, giving rise to important peasant

organizations such as MOCASE (Movimiento Campesino de Santiago del Estero). Still in the present, the vulnerability of possessors in order to control land is firstly linked to the lack of property titles as well as to the lack of legal knowledge and political awareness about their land rights. This situation of vulnerability, has been often used for the advantage of agribusiness/ grabbers in order to put in practice mechanisms of control through different types of pressures ranging from persuasion and deception, to intimidation and physical violence. Also 'pressure', in a broad sense, becomes itself a control mechanism. Even willing-seller/willing-buyer relations are not except of 'pressures'. Pressure mechanisms can operate in very different ways in the different type of transfers/deals, becoming the initiators of the shifts in control. Therefore these do not only imply the pressure of a threat of physical violence or financial urgency to sell land, but also persuasion, the envisioning of the costs of the rule of law and, at the end, the pressure of holding a property title vis a vis possession rights. Thus, the other mechanisms illustrated by this typology are then the different forms assumed by **pressure** in order to gain access to and/or control over land.

Persuasion to sell or cede possession Rights sometimes turns into concrete pressure through indirect forms of enclosure and isolation, by purchasing or obtaining rights from neighbours surrounding communities and individual families. But also could turn to operate through physical enclosure by fencing, clearance of common pasture lands, blocking access to water sources, killing and theft of animals, intimidation with firearms by the police and para-police employed by businessmen, rejection from institutions to process claims, such as the refusal to accept complaints of usurpation by the police, false reports to criminalize farmers and arbitrary detention (similarly to the situation of MST in Brazil). When an agreement or signature of comodato is rejected, harassment may lead to the abandonment of the land and, in the best cases, to different political or judicial strategies to defend possession rights. As described in Barbetta's work (2009) and as it also emerges in the interviews with peasants' leaders, NGOs and social pastoral in December 2011, these harassment mechanisms include destruction of native forests (source of grazing, fuel and food), as well as destruction of improvements done in the fields (poles, fences), which in many cases are part of the prove needed to make claims of possession in the judicial field. These actions are taken in order to force signature of agreements. The following figure summarizes the claims presented by farmers as part of the different mechanisms of pressure to sale, cede or donate rights to land.

Figure 1. Claims presented to the provincial Human Rights Sub-secretary



Source: Observatory of Peasant Communities Rights, Santiago del Estero, July 2005.

3.4 Tension and Violence

D) Mediation/agreements (win-win?): This type of deals make a clear difference between access to and control over land. Evidence shows that the result of the not so common win-win deals could have an outcome that implies receiving less land than what is originally claimed by holders of possession rights, through a more limited access to resources, such as pastoral lands, water, routes and improvements made. On the other hand, the legal owner of land may also have to re-arrange the title reducing the area under property in order to move the frontier forward. In this sense, not 'win-win' agreements but 'loose/loose' agreements are in the core frontier shifts. Questioning what is to win or to loose in these arrangements still remains as a fundamental matter.

Firstly we also need to unpack the idea of 'voluntariness' in these type of arrangements. Negotiation does not necessarily mean consensus or lack of tensions. In this sense pressures from different parties operate as mechanisms to gain control. In general, outcomes are related to differences in power positions and access to different types of capitals. The vulnerable situation of possession rights holders, lack of knowledge about their

rights and how to defend them makes them surrender when facing a particular type of 'second best dilemma': "what will happen if you don't make an agreement with me? I will sell my part to another one who will come with the bulldozers..." (interview data).

"You are faced with a personal choice, to say hey!, is an arrangement or mediation useful or not? And it obviously implies a reduction in the possession of families. But being in the situation of assessing this question, how is the community, what's the level of organization; and like always to make clear to the families, look, the defense of the land involves not sleeping, notifications there, notifications here, courts, shooting at night, visits of vans, threats, but also the other side means you continue to live as you live, and there, with the assurance that your children can continue to live there" (interview with a peasants' lawyer).

Advocates of the generalization of these type of solutions claim that ceeding from both sides could lead to a better situation for all, instead of the zero-sum situations that characterize judicial processes over recognition of posesión rights. As Barbetta clearly shows, the equation 'give a bit in order to receive a bit' is rarely solved. Even more, the agreement is used as an entrepreneur's strategy in order to break peasant resistance, since immediately the arguments being the legitimacy of posesión rights fall down, therefore de-politizing peasants' claims for land. Ceeding a part of what corresponds to them, implies a hidden message of the illegality of peasants' occupation (Barbetta: op.cit.), creates an illusion of equal parts and at the same time puts them in a place of receiving a favour from the entrepreneur. The background of the failure of these fake negotiations among equals resides in the deep historical power relations between social groups in the province, where 'caudillismo' is to govern the relations between political and social classes, has much to do with this character printed on the supposedly successful deals.

Another generalized practice to gain access to land from holders of possession rights is the signature of a 'comodato'. This is a particular type of contract -with a huge range of variations - through which the possessor cedes their land while is given the right to live and use part of the land for a limited period of time, therefore accepting a new status as borrower and relinquishing possession rights. In this sense, also comodatum contracts imply only the beginning of the story or the process of gaining access, which can endure until the possessor leaves the land - maybe still believing that he had no other option than ceding the land - with a range of different situations in between, such as ex-possession-rights-holders paying to the new land user for cattle ranching within the land where they lived for decades, implying considerable implications in terms of wealth.

Moreover, In Santiago del Estero, when an entrepreneur negotiates access to land with possession rights holders, it is usually the case that he attempts - through different land control and access mechanisms - to acquire more land beyond the initial agreement, and probably the conflict continues but in other terms. Additionally, the range of possible land deals seems to show that negotiation of 'win/win' agreements does not necessarily lead to the end of conflict, nor to the improvement of the landed based situation of those with weaker tenure situation, most of the times leading to new forms of enclosure.

"if the agricultural frontier advances is because there always somebody willing to negotiate; I don't know one case of mediation where the entrepreneur remains with what has been agreed" (Interview data).

E) Conflict through judicial processes:

i) Re-Vindication trials are those initiated by an entrepreneur who has the titles of a land that is occupied by holders of possession rights, who are demanded as 'usurpers'. At the process is based on proving that these peasants do not fulfill the 'ánimo de dueño' - intention to own or behaving as an owner - profile. In many cases these trials are accompanied by destruction of material improvements that are part of a judicial construction of 'possession actions' or improvements to the land. This destruction of proofs happens in the judicial field and also outside. Illegal grabbers also find this judicial field as a space to gain control to land through corrupt practices and the development of a whole business with titles, which are sometimes the base of proof in re-vindication trials against possessors.

"In cases that they report the name of the holder of the title, then we know we have to sue Juan Perez. Nobody showed up, and then they (possessors) end up winning. What happens after 20 years? The son says look my oldman has not registered veredict, I need it registered ...what happens?, the Property Register says "no", look, you have done a mistake in your demand, because you sued Juan Perez but the registered owner is Carlos Gomez. Then you say, that has happened? I have a report from 1982 which tells me the owner was

Juan Perez, then you realize that there has been a fraudulent enrollment of year 68 in which Juan Perez allegedly sold it to Carlos Gomez and this is sold after the Gutierrez who are the people from Córdoba who want to get the land. That case is clear, the maneuvers of property registration office ” (Interview data).

ii) Adquisitive Prescription trials take place when conflict around land enter the judicial field the previously described dynamics and strategies are still present and keep their influence on the power (in)balance of the parties. Adquisitive Prescription trials are the tools for holders of possession rights to proof their possession over the right given by someone else through the property title. The main problems of access have to do with economic limitations to initiate and carry on trials, as well as lack of deep knowledge of legislation. What Barbetta called the 'presentation of the facts in a judiciable way' is part of a complex political process, in which farmers assume the judicial figure of 'poseedor' and construct the truth of their possession actions and their intention to own ('animo de dueño) within a field that is not well known, that of civil justice (Bourdieu: 2000); while, in order to access to it, they need to link to intermediaries, organizational processes and processes of collective identification to a farmer-community. Access to justice high costs and lack of access to justice is one reason why the strategy of acquisitive prescription trials generally have a reactive and not preventive character, since in general these processes initiate from a vindictive judicial action by the alleged owner of the land (Barbetta: 2009). Enclosure also has a meaning in terms of the judicial struggle for the rights of the peasant population. All these facts lead to evidence of 'enclosure' which is therefore is not only taking place in territorial terms, but has much to do with the political, judicial, social power relations that are very unequal. In this sense, many of the enclosure actions are at the end aimed at destruction of evidence in support of proving the legality of possession rights and actions.

F) Territorial conflict: Violence is often used as a mean to intimidate and/or evict holders of possession rights and is another way in which holders of possession rights loose their access is through direct - and most of the times violent - occupation. In general, this derive in open conflict and in many cases in resistance from organizad peasants to eviction and destruction of possession actions. According to the Provincial Human Rights Sub-secretariat, by 2005 these conflict situations affect around 5000 families and 360.000 hectares of land—and possibly the number may increase considering familias and communities that could not have access to make a formal demand to this insitution (Barbetta: op.cit.). Within mis-appropriation we also includes attempts to it, such as threats and other means of intimidation including illegal and corrupt actions such as illustrated by this peasants' attorney:

“There are other cases in which newcomers do not even have titles, just start wiring with armed guards, they bring the wire, as a case that I have in the apartment Banda. They go from wire to wire and make people sign papers by threatening them, sign the transfer of possession rights. The buy these rights from several families and them they become themselves holders of possession rights over 2000 hectares. Afterwards, they initiate a prescription trial and so on ... Why? How? Why in this case will require so much to proof and this other case almost nothing? So there clearly manouvres as well as the ideological position of judges. Corruption is installed; from the Property Register Office, cadastre, and the same justice officials” (Interview data).

The intensification of land disputes has to do then with a dynamic of advance of the agricultural frontier, quite different in character from the earlier periods, in terms of speed, massiveness, violence, types of land control strategies, the origins of capital invested and diversity of actors involved in 'grabbing the land'. The conflict implies violent displacement, threats, wounds and deaths and more than 500 criminalized peasants. The data base provided by REDAF²⁸ on land conflicts registers 123 conflict only in Santiago del Estero province, most of them related to violent evictions, total or partial mis-appropriation of land and enclosure through wiring, deforestation, killing of animals, etc.

“... we can theorize ... the judge may disagree about the concepts, the extent of possession and everything else, the fact is that in the land, in the 'monte', there are armed groups and people resists” (Interview data).

Along the years the strategies of defense of possession rights have become part of a broader political strategy of vindication of the peasants economy, way of life and identity, and sovereignty as well as becoming the central tool that was useful to get together an array of

²⁸ Red Agroforestal Chaco Argentina, 2011.

social and state actors in a semi-institutionalized network, at least at provincial level, that plays a quite important role in the governance (control over) of land.

3.3. Institutions, networks and governance

Governance is a concept that has been born among, and strongly adopted by, development policy makers, therefore expressing an instrumental and normative approach to reality. Within land policy debates, governance has also referred to a limited view about conflict management and sustainable resource management. In this article we aim to challenge this limited policy-oriented idea about governance. From an analytical perspective of land governance, it is firstly important to address that rights over land –whether they imply property, possession or tenure - are not things but social relations (Borras: 2010). As well, land use change processes and the production of new socio-economic spaces take place as the result of power relations in practice. This means, in principle, to question win-win assumptions present in most of policy oriented approaches to land governance (and many times, sustainable development): the idea that avoiding negative social and environmental effects is possible with good management. These assumptions may conduce to a de-politization of the analysis; where politics appear to be mere instruments for promoting efficiency and effectiveness. Land governance policy choices, such as those affecting land use change, may vary depending on development narratives, conceptions about the relations between nature and society and about social justice.

The expansion of the agricultural frontier in the Chaco region has been a historically ungoverned process. But if we consider governance as a synonym of control, different social groups have controlled and benefited from this process in different phases, although it has not direction and was rather chaotic in the long term with moments of land appropriation and othesr of land abandonment, and taking over by other groups. Since GM soya brought a new wave of land commoditization from year 2000 -opening a land market in the Chaco also for other activities such as cattle growing, forestry use or mere speculation- new questions about the governance, control and regulation of the process emerge.

On one hand, drivers of the expansion of the agricultural frontier into the Chaco are part of the process of governance. While during more than 15 years -alter the liberalization of GM soya in 1996- the public sector remained relatively inactive in relation to this sector regulation, we know that inaction is one way of acting, paving the way for its development by leting it advance unregulated. Although quite a significant amount of public resources were aimed to support scientific and technical public-private partnerships among national institutions such as INTA²⁹ and CONICET³⁰ and private actors in the soya chain. In addition, taxation of crude soya exports did not addressed incetives to produce more, but only triggered controversies about distribution of benefits among private and public actors.

Recently the national government has taken a more proactive role in relation to policies for the agrcultural sector, particularly with the launching of the brand new national PEA2 (Federal and Participative Agri-food and Agribusiness Strategic Plan, 2010/2016³¹), through which Argentina seek to strike a privileged position as a global provider of food, has the main goal of increasing agricultural land in production in 6 million hectares, while it neglects the existance of peasant production system and excludes the Chaco region from the group defined as fragile ecosystems. An active policy of dissemination of the PEA across society shows that it will seriously affect the future of rural like and the relation of society and nature in the long run and it is already giving positive signals to land investors in light of promising industrial agricultural and cattle growing sectors. Moreover the Nacional Cattle Plan aims to stimulate production up to 77 million heads aiming at exporting 12% of total production. In Santiago del Estero this means thousands of hectares of peasants' and forests lands put into production for export commodities.

In particular in Santiago del Estero, some historically poor and abandoned by the state provinces have been recently affected by the Historic Reparation Acts, which include a range of provincial infrastructure projects, many of them aimed at incorporating lands to agriculture production, as it is the case of the Figueroa dam, built up in 2011 to open 30.000 hectares for agricultural and cattle production. In the background of infraestructural

²⁹ National nstitute of Agricultural Technology.

³⁰ National Council for Sicientific and Technical Research.

³¹ Plan Estratégico Agroalimentario y Agorindustrial, Participativo y Federal, 2010, Ministerio de Agricultura, Ganadería y Pesca.

development in the Chaco we find the IIRSA³² project aimed at constructing a new infrastructure network on the South American continent, and affecting particularly the future of the South-American Chaco region as a whole.

On the other hand, the only national and provincial legislation aimed at coping with negative impacts of frontier expansion is the Forests Law –and the processes of Territorial Planning linked to it- which deals with the environmental dimension of advance of the agricultural frontier through forests' clearing. While the results of Territorial Planning processes have been very heterogeneous in different provinces and are still open to negotiation and contestation, and the capacity of this type of regulation in order to protect vulnerable ecosystems is not yet guaranteed.

At the same time, in dealing with social and economic impacts of frontier expansion, there is no policy oriented to the defense of peasant production systems and the particular relation of them with land. In this sense, dynamics involving tensions around possession rights, social organization, judicial and political strategies to defend them and claims for institutionalization of this defense, have become themselves a new field of land governance. Although this is true also for many provinces in northern Argentina, in Santiago del Estero, peasant resistance to the advance of the agricultural frontier has taken the form of a struggle organized around the recognition of possession rights, in order to gain maintain and control access to land.

The collective protection of peasants possession rights begins with basic work done by local community leaders, generally supported and trained by pastoral organizations, NGOs or the various farmers' organizations, among which the most important, with national and international projection is the MOCASE³³. Judicial and political integration of the fronts of resistance constitutes a qualitative leap that had to do with the direct work of grassroots rural leaders (interview referent of the Pastoral Social). This basic work of information sharing, institutional linking and political organization provided a minimum level of awareness about the different fronts to be defended -police and judicial processes required, as well as territorial defense strategies against evictions, enclosures and physical violence by those who put pressure on possessors to leave the land. Once judicial proceedings initiated for achieving recognition of the possession and dominal prescription – leading to final titling - a process that generally does only begin when the threat of eviction is imminent, and not as a preventive measure- a number of strategies is used, aimed at strengthening the spirit of ownership of the possessor, by proving 'possessor acts. Within such strategies, which also have a complex legal side, development NGOs and MOCASE, among other peasant organizations, play a relevant role of advice and support. Finally peasant political organization has played a fundamental role in land governance, mainly through resistance to evictions and enclosure on the ground but also the MOCASE became the main interlocutor of the provincial government, and other actors as a member of the Land Table. MOCASE also allowed peasants to embrace and use the language of the rights strategy and the construction of truth, necessary to enforce their demands. Claims of this peasant organization is framed not in the struggle for a certain number of hectares but the territory, the campesino mode of life (Barbetta: 2009, interview data: 2011).

The need of support networks for peasant families defending their lands really emerged in the political field when pressure on land became generalised in the province. On the other hand, the increasing number of trials and the complexity of the process of proving possession rights, encouraged NGOs and church based organizations to develop strategies of support to this process, involving development projects in the communities, legal awareness and interconnectedness of the communication around conflicts, threats and strategies. At territorial level, and at different scales, 'spaces of land' or often called, Land Tables (Mesas de Tierra) emerged and became key. The most important and formalized is the Provincial 'Mesa de Tierras' of Santiago del Estero³⁴. Driven originally by Bishop Macarone in 2000, this table becomes a space where different organizations begin to articulate public policies on the issue of land disputes, as well as helping to make the problem of land visible. This semi-institutionalized network of land governance – which is made up of civil society organizations and public bodies, under a consolidation process with no little trouble. The Provincial Land

³² Integration of Regional Infrastructure in South America

³³ Movimiento Campesino de Santiago del Estero

³⁴ Founded in 2000 by the Social Pastoral, the Provincial Land Table of Santiago del Estero integrated also by NGOs (Fundapaz, Incupo, Bepe, SEPID, Greenpeace), peasant movements (MOCASE institucional, MOCASE-VC) and local Land Tables, State organs such as the FONAF – Foro de Agricultura Familiar).

Table also pushed for the creation of organisms such as the Possessors Registry³⁵ and the Emergency Committee which have not been fully institutionalized yet and have been the object of partisan politics disputes around resources and accused of being used by the provincial government to de-mobilize peasants social movements on the ground. Nevertheless, at some point the overall process made possible the development of common strategies of basic defense of land access, although its control is something not yet guaranteed. In this sense, the acquisition of land by businessmen, the arrangements between parties and resistance to eviction are most of the times just the beginning of a process of bidding for control over land, by actors involved in unequal power relations (Bryant: 1998).

4. Conclusions. Governing the frontiers

The Kirchners' administrations era from 2003 to the present day have had a lot to do with re-establishing the power of the national state and its political initiative, and getting the country out of one of its deepest crises by taking progressive measures and in many cases reversing many of the neoliberal achievements. Despite a rather successful administration in terms of giving space back to politics by introducing into the usual work of state institutional debates that were not widely discussed in society, the state has failed until now in the fields of rural development and the regulation of extractive activities (e.g. mining, forestry and soya monoculture), while has acted only to create economic incentives for the further expansion of these activities. It has not properly addressed regulations for sustainability or protected rights. Although with limited scope, the fact that the state is regaining the initiative in executive, legislative and judicial matters opens possibilities for regulation, whereas before there was only the market. With the conflict between the government and the soya-producing sector of 2008 over export rights, the hegemony and the problems involved in the soya model were put up for public discussion, albeit with many limitations, contradictions and omissions. While this conflict over who should benefit and how to distribute the income from soya exports was going on, another sector was ignored: *campesino* economies, the indigenous communities and the producers for the domestic food market, which are still not a target for rural development and agricultural policies.

As for the national government, the purely economic argument of not losing an opportunity has been its leitmotiv and has led to the massive and unsustainable expansion of GM soya in the core region. The lack of policy was justified by arguing that it is best not to put limits on the market. The same type of argument was later used to justify *laissez-faire* policy with regard to the expansion into the Chaco region, allowing more powerful actors to impose their particular interests and make them seem universal. In fact, not much has been done in Argentina to define an agricultural policy for sustainable development. Associated measures were for a long time aimed at supporting the dissemination of GM soya seeds and ignored the protection of the rights of those with weak land rights (such as indigenous communities and holders of possession rights), the protection of those affected by environmental harm and the protection of the environment.

The rapid expansion of soya monoculture in the Argentinean Chaco region implies massive land-use changes and pressure on land whose users have weak tenure rights, or on land that is being claimed by different actors, such as companies, *campesinos*, indigenous communities and landless workers. The tensions lead to claims for the regularization of possession and indigenous rights. The problems arise because in the Argentinean Chaco provinces a larger number of peasants do not hold titles to the land they occupy and work on. Different mechanisms of pressure on the indigenous and peasant population as well as mechanisms of enclosure occur. These include violent evictions, unequal legal disputes, the pollution of water, soil and crops, and the clearance of forests, which are sources of livelihoods of the communities in the region.

The consensus that GM soya expansion had success in the core region seems to be contested at least in Chaco provinces. Here, tensions related to rights, social organization, judicial and political strategies to defend them, and claims for the institutionalization of this defence, have become a new space for land governance that might challenge dominant discourses legitimizing processes of the commoditization of land and the privatization of nature.

³⁵ Created in 2007 the Possessors Registry with the aim of support possessors in the obtention of the title. Also developed lines of work on providing technical assistance and resources for the mapping of the claimed land, legal support and strengthening for proof construction and defense of possession actions.

In connection with the advance of the agricultural frontier into bio-diverse and socially vulnerable rain forests and savannahs, we can observe the emergence of new actors and the trans-location of actors who put into practice new forms of control over land and natural resources with non-local capital. Translocal actors (Zoomers et.al: 2012) have played and still play an important role in introducing capital, technologies and modes of production and management, which historically developed in the Pampas, into the Chaco region through the process of *pampeanization*. The case of Argentina clearly shows that for the moment the relevance of foreignization is emblematic but not necessarily the mainstream, and that the role of the domestic and translocal private sector is more important than we thought.

Alter contextualizing the drivers and historical conditions for expanding the frontier of industrial (extractive) agriculture and cattle production and commoditization of land in the Chaco region, in the core of this paper we showed how access, property and control over land allows us to better understand the complexity of situations in shifting frontiers 'zones'. Access 'refers to a larger array of institutions, relations and discursive strategies that shape benefit flows" (Peluso & Ribot: op.cit.), and derives from a 'bundle and webs of powers' which can be both coercive and disciplinary. In addition, the idea of control has to do with particular mechanisms articulated by certain actors or institutions to benefit from that resource. In this sense, the analysis of the different types of land transfers under the lens of 'land control' showed that enclosure is not only an outcome but also a mechanism for maintaining land control and further frontier shift. At the same time, in Chaco provinces peasant and indigenous resistance to the advance of the agricultural frontier has taken the form of a struggle organized around the recognition of possession rights, in order to gain, maintain and control access to land. However, there is no policy to defend the peasant production systems and their particular relation with the land against the social and economic impacts of frontier expansion. This means that the tensions related to possession rights, social organization, judicial and political strategies to defend peasants and claims for the institutionalization of this defence have become a new field of land governance.

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