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## **Fuelling Social Inclusion? Neo-extractivism, State–Society Relations and Biofuel Policies in Latin America’s Southern Cone**

**Diana Córdoba , Marta Chiappe, Jesse Abrams  
and Theresa Selfa**

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### **ABSTRACT**

Scholarship on neo-extractivism agrees that this ‘post-neoliberal’ model of development is founded on an inherent contradiction between the commitment to continue natural resource extraction and the need to legitimize these activities by using their revenues for poverty reduction. Using the cases of the national biofuel policies of the ‘post-neoliberal’ governments of Argentina, Brazil and Uruguay, this article enquires why and how these policies emerged, how they were implemented, and how the resulting national experiences exemplify the inherent contradictions embedded in neo-extractivist policies. Adopting a strategic-relational approach to analyse state–society interaction, it is argued that the scope of progressive policies is conditioned to a large extent by pre-existing social structures, institutions and state–society interactions. The article shows how progressive reforms intersect with the prevailing interests of agribusiness and state actors and are recast and used for different ends as these interact with powerful actors such as the multinational soybean complex and agrarian movements. It is suggested that the prevailing over-emphasis in the neo-extractivist literature on the politics of domination and contestation overlooks the multiple and complex rural responses of the different progressive governments. It also obscures the possibilities to explore the ruptures and continuities of these countries’ governments with previous models, and therefore fails to recognize state advances.

### **INTRODUCTION**

In June 2007 during the 33rd summit of Mercosur, then Brazilian President Luis Inácio ‘Lula’ da Silva made a provocative statement to encourage

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member countries to advance an ‘energy revolution’. According to Lula, the ‘revolution’ should be based upon biofuels production to achieve energy stability, overcome historical inequalities in rural areas and bring about social justice. Amid the food crisis of 2007–08 that triggered the food-vs-fuel debate, Lula defended biofuels as an alternative path to energy production. He praised the results of the Brazilian biodiesel policy established by his Partido dos Trabalhadores (PT), or Workers Party, that came to power in 2003:

Brazil’s experience makes clear its [Brazilian biofuel policy] enormous environmental, social and economic potentials. It also shows that this program does not compromise in any way the food security of our countries. . . . [W]e urge that the Working Group on Biofuels draws up a programme to encourage the production and consumption of ethanol and biodiesel in the countries of our block.<sup>1</sup>

President Lula’s words were an endorsement of similar biofuel policies underway in Argentina and Uruguay and an invitation to other countries to replicate Brazil’s experience in biofuels production.<sup>2</sup> Led by Brazil, Argentina and Uruguay have also pushed the agenda of biofuels forward as an essential part of the energy integration plans of Latin America, positioning themselves as major worldwide producers and consumers of biofuel (Rodríguez, 2010). In 2004, President Lula launched the National Biodiesel Programme (PNPB) in Brazil, representing the largest worldwide effort to include family farmers in the biodiesel commodity chain (Flexor et al., 2011). In 2006, under the government of Néstor Kirchner, Argentina passed a biofuels promotion law that included mandates for domestic consumption, tax benefits for biofuel production (privileging small and medium enterprises), and a process for licensing production facilities for biofuel exports. In Uruguay, the leftist Frente Amplio (FA) — Broad Front — government implemented a biofuel law in 2007 that emphasized the social inclusion of small farmers in the biodiesel market.

This support for biofuels came at a time when these governments were proposing alternative development agendas. Argentina, Brazil and Uruguay were part of the ‘pink tide’ (the wave of left or centre-left governments that took power of the region between 1998 and 2006) that swept the continent in the late 1990s and early 2000s with the election of 12 presidents (Cannon and Kirby, 2012; Grugel and Riggiozzi, 2012). Fuelled by popular resistance, ‘pink tide’ governments made anti-neoliberal reforms a central part of their platforms. Prior neoliberal reforms promoted by the so-called Washington Consensus prioritized the privatization of state-owned enterprises, reductions in social spending and encouragement of foreign investment

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1. Speech given by the President of the Republic, Luiz Inácio Lula da Silva, during the Mercosur Summit, 20 June 2007, Asunción, Brazil. [www.secretariadegoverno.gov.br/arquivos/portfinal](http://www.secretariadegoverno.gov.br/arquivos/portfinal)

2. The term biofuels includes three forms of bioenergy: a) fuelwood and other organic materials; b) ethanol; and c) biodiesel.

(Goodale and Postero, 2013). In the Southern Cone,<sup>3</sup> such reforms began in the mid-1980s as these countries emerged from dictatorships, and led to rising unemployment, poverty, marginalization, the dispossession of the commons, and the primacy of market-oriented policies that resulted in economic turmoil that peaked in Argentina's financial crisis of 2001–02 (Grugel and Ruggirozzi, 2012).

This turmoil spurred massive protests throughout the region against the neoliberal agenda. When progressive governments came to power, they endorsed a 'post-neoliberal' development model that called for a more prominent role of the state in the economy and in wealth redistribution (Cannon and Kirby, 2012; Córdoba and Jansen, 2014a). In contrast to Bolivia, Ecuador and Venezuela, states that defended a radical social transformation by constitutional means, Southern Cone progressive governments were anchored in a more pragmatic vision of remodelling existing institutions (Grugel and Ruggirozzi, 2012). These Southern Cone governments saw biofuels as a means for economic transformation needed to address current poverty levels and to lay the foundations for a new, more sustainable economy in the future. Yet the promotion of biofuel policies caused many to question progressive governments' commitment to alternative development given that biofuel industries often are based on an extractive agricultural model exemplified by soy and sugarcane monocultures (Borras et al., 2010).

Over the last decade, scholars have documented the post-neoliberal development strategies in the region under the term 'neo-extractivism'. With certain variations across countries, Eduardo Gudynas (2010) identifies two common characteristics of neo-extractivism. The first is the continuation of the extractive model inherited from colonialism based on the exploitation and export of natural resources in close relationship with transnational capital, the extraction of surplus value from local territories and the increasing precariousness of labour (Acosta, 2011). The second feature is a focus on social inclusion and poverty reduction as central objectives of extractive activities. Scholars conclude that this post-neoliberal model rests on an inherent contradiction between the commitment to continue with extractive capitalism, facilitating capital accumulation that is often appropriated by economic groups outside the country, and the need to legitimize these activities by using the revenues from extraction for poverty reduction and social programmes (Burchardt and Dietz, 2014; Veltmeyer, 2016). This contradiction in the neo-extractivist model highlights its basis in natural resource exploitation that causes the destruction of the environment and communities' livelihoods while bringing little employment, therefore leading to greater inequalities in society.

In this article, we ask why and how these national biofuel policies emerged and were implemented, and show how they exemplify the inherent

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3. A geographic region composed of the southernmost countries of South America including Argentina, Brazil, Uruguay and Paraguay.

contradictions embedded in neo-extractivism. In doing so, we explore the relationship between state and society actors<sup>4</sup> in an effort to contribute to the discussion of whether ‘progressive’ governments in the region can act in the interests of the poor. In the next section, we begin with a review of the relevant literature on neo-extractivism to highlight how the prevailing over-emphasis on the politics of domination and contestation has led to overlooking the multiple and complex rural responses of the different progressive governments. We propose instead a strategic-relational approach that considers the state–society relationship to be co-constitutive (Fox, 1993; Jessop, 2008).

Using this framework, the third section analyses why and how these bio-fuels policies were proposed and implemented in each country, and whether and to what extent outcomes have served the rural poor. We argue that bio-fuel policy implementation is not a one-way political dynamic driven by the state. Inclusionary measures intersect with, and are hindered by, the existing economic and institutional context as state and society actors recast these policies to their particular, sometimes contradictory and competing, interests. For example, in Argentina and to a lesser extent in Brazil, inclusionary policy measures within national biodiesel policies were used by other actors for different ends, helping to strengthen instead of weaken the soy complex. In Uruguay, in contrast, the state looked for allies in the public and private sector to push for a collective project to diversify biofuel production under the label of ‘energy sovereignty’ (ALUR-ANCAP, n.d.). We close with a brief discussion about the implications of this study for future research on neo-extractivism. The article is based on analysis of government policy documents and secondary sources, as well as on data from fieldwork and personal interviews. This includes 18 interviews with policy makers in October 2015 in Brazil, 17 interviews with policy makers, industry managers and farmers in 2007 in Uruguay, and 42 key-informant interviews related to policies toward bioenergy more broadly conducted in Argentina in 2014–15.

## **NEO-EXTRACTIVISM AND STATE–SOCIETY INTERACTION IN LATIN AMERICA**

Literature analysing South America’s dramatic shift to the left under the label neo-extractivism has grown rapidly in recent years. Critics point to the inability of progressive governments to decolonize their national economies and move towards a truly post-extractivist model. Burchardt and Dietz (2014), for example, note the absence of alternative development strategies leading to structural changes in society, especially in the taxation system. Gudynas

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4. We define society actors as ‘a group of people who identify common interests and share ideas about how to pursue them’ (Fox, 1993: 23). We confer agency on individual and collective actors.

(2010) shares the same concern, contending that although progressive governments deployed some state efforts to regulate the market and generate social compensation measures, these governments did not challenge the logic of this development nor make substantive changes in the current structure of accumulation. Other authors see in neo-extractivism a continuation of the alliance of the state with national elites and transnational capital accentuated during neoliberalism to generate profits for the former and resource rents for the latter (Acosta, 2011). Researchers argue that this strategy reproduces the patterns of accumulation and wealth concentration as well as the ‘resource curse’ — the paradox that countries with abundant natural resources often have poor development outcomes (Petras and Veltmeyer, 2014: 28).

In agriculture, neo-extractivism is reflected in the trend towards large-scale monocropping — intensive in capital and low in labour (Svampa, 2012). Svampa makes visible the complex tension these governments face. For her, the recent ‘re-primarization’ of the economies of Latin America clearly shows the limits of the national state’s action and the strong influence on the decision making of transnational actors driven by the exponential growth of international commodity prices (ibid.). These critics point out that although financing social policies via income based on extractive accumulation models has caused an ‘elevator effect’, helping almost all social groups to improve their situation (Burchardt and Dietz, 2014: 475), the model will also simultaneously increase national economic reliance on global markets and contribute to the expansion of an imperial capitalism (ibid.; Webber, 2014).

Researchers also highlight the negative socio-environmental effects of this development model. Several studies have documented the impacts of natural resource exploitation and the limited environmental management capacity of these governments that wreaks havoc on communities and nature. A number of studies also highlight the conflicts and resistance of social actors such as NGOs, ethnic minorities and peasants affected by these activities (Acosta, 2011; Gudynas, 2010). For such researchers, neo-extractivist interventions often co-opt popular movements or constrain and bypass democratic spaces to impose extractive projects. These state actions result in a closure of democratic spaces in which people otherwise struggle for distributive policies and consequently cause serious setbacks in the democratization of the state (Siegel, 2016). Although a large proportion of critical scholarship has focused on the mining and hydrocarbon industries (see Bebbington, 2012), agricultural researchers have also offered valuable insights on how the new agro-exports for food, feed and energy markets supported by progressive governments have encouraged new waves of land dispossession, enclosures and land concentration (Baletti, 2016; North and Grinspun, 2016). In most of these critiques, the state plays a coercive role in the dispossession, using the breadth of its powers to guarantee the consent of governed populations.

Despite these important developments in the understanding of neo-extractivism, in our view these studies have over-emphasized the politics of

domination and resistance when studying the contradictions of this model. Discussions of neo-extractivism tend to be framed in binary terms, that is, as the progressive state in alliance with (trans)national capital versus society. These binary explanations obscure the possibilities to explore the ruptures and continuities of progressive governments with previous models, and therefore fail to recognize the state's advances. Left critics of these governments neglect the fact that moving historically inequitable nations towards social inclusion cannot be done in just a few years. Neo-extractivist state interventions are complex phenomena that, we argue, can be best understood by analysing why and how certain reform policies are enacted, and succeed or fail in the context of political contestations and consent in the relations between state and society actors.

In the literature, variants of state-centred and society-centred approaches have sought to provide explanatory frameworks of state action (Fox, 1993; Jessop, 2001). In state-centred approaches there is a clear boundary between the state and society in which the state is an apparatus for war making and repression and its intervention in society is explained as a way to maintain legitimacy with the majority of the governed (Scott, 1998; Skocpol, 1979). Society-centred approaches explain state action in terms of factors rooted in 'the organization, needs, or interests of society' (Jessop, 2001: 152). Fox (1993: 39) proposes an interactive approach that seeks to combine the strengths of both approaches by focusing on 'the interaction between state and society, the institutions that mediate such interaction, and the factors that account for how those institutions are in turn transformed' to explain reforms from above that are able to change societies. He shows how the different capacities of actors to achieve their goals change through conflict and convergence and how the strength or weakness of the pro-reform forces rely on strategic interaction with each other and with their opponents. As a result, some forms of societal action have an impact on the state and agenda setting, and on shaping the state's response (*ibid.*: 26–27). In other words, Fox concludes that to understand how the reformist policies of progressive governments create openings from above, we also have to look at society, to see how the interests of social actors take advantage of these opportunities.

Along this line, Jessop (2008) articulates the idea of state power as a social relation. He contends that it is not possible to think about the state as a simple instrument that is equally available for everybody and for any purpose established by those in power. According to Jessop (2008), the state as well as economic organizations have 'selectivities', in which society and state actors privilege some strategies and interests over others, facilitate access by some forces over others, and some spatial scales of actions over others (e.g., national or local, long-term or mid-term interventions).

To understand state action therefore is to unpack not only the structures under which state policies operate (i.e., the real dynamics of a globalized world and capitalism) but also to explicitly attend to the interaction of state

and social actors. This approach enables the state to engage in meaningful development efforts on behalf of the poor while also explaining the contradictions inherent in state intervention. In the following sections, we apply this strategic-relational approach to the state to our three case study countries to explain the national biofuel policies undertaken by the progressive governments of the Southern Cone to support social inclusion and poverty reduction.

## BIOFUELS AND STATE–SOCIETY RELATIONSHIPS IN THE SOUTHERN CONE

### Argentina

Argentina began its engagement with biofuel production in 1978–79 under the ‘Plan Alconafta’, a programme that, like Brazil’s better-known ‘Pró-Álcool’, promoted ethanol production from sugar cane for domestic consumption (Carrizo et al., 2009). However, it was the passage of the 2006 Law 26.093, ‘Regulation and Promotion Regimen for the Production and Sustainable Use of Biofuels’, under President Néstor Kirchner, that catalysed Argentina’s emergence as a global player in biofuel production. The biofuels law established a National Commission for Biofuels charged with the regulation and promotion of biofuels via the setting of industry standards, registration of biofuel production facilities, promulgation of domestic blending mandates (starting at 5 per cent in 2010), and establishment of tax exemptions favouring small and medium enterprises (Lamers et al., 2008). Other provincial and national programmes and resolutions followed, further supporting and regulating biofuel production (Hilbert and Galligani, 2014). Starting from a negligible amount of biodiesel production in the early 2000s, Argentina went on to produce over 2 billion litres annually from 2010 through 2015, nearly all of which came from soy (Joseph, 2015).

Argentina’s soy-based biodiesel sector exists as a subset of a larger export-oriented soy economy that has expanded greatly in both scale and economic importance since the 1990s. The politics of biodiesel in Argentina, including actions taken in the name of social equity, are intimately tied to the larger dynamics regarding so-called *sojización*,<sup>5</sup> the restructuring of domestic rural economies, and the role of the state under the post-neoliberal order of Peronist Presidents Néstor Kirchner and Cristina Fernández de Kirchner. Although Law 26.093 does contain provisions designed to privilege smaller biofuel producers over larger producers (in the context of production for the domestic market), the dominant export orientation of Argentine biodiesel to date means that struggles regarding social inclusion have largely arisen in

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5. The expansion of intensive soy production at the expense of other traditional land uses.

connection with export taxes and the regulation of the larger soy economy and associated land uses.

The background to the emergence of Argentina's soy and biodiesel economies lies in prior waves of neoliberal transformations, most importantly during the 1990s under Presidents Carlos Menem (1989–99) and Fernando De La Rúa (1999–2001). The elimination of marketing boards and associated quotas that for decades had regulated and supported various agricultural sectors had a profound effect on the rural economy, leading to a massive loss of smaller producers and outmigration from rural agricultural zones to urban areas (Manzanal and Arzeno, 2011). A 1996 law authorized the use of transgenic crops in Argentina, opening the doors to soybeans engineered to resist the broad-spectrum herbicide glyphosate. These changes set the stage for the emergence of a new agricultural production model, one characterized by higher levels of capitalization, mechanization, foreign investment and economies of scale. The ultimate expressions of this model are the so-called *pools de siembra*, financial trusts that coordinate soy production over large areas via the use of contractors, land rental and intensification of production (Barsky and Gelman, 2009).

Argentina's neoliberal decade culminated in the 2001–02 economic crisis that saw the popular overthrow of two presidents within the span of a single week and the largest sovereign debt default in history. Néstor Kirchner was elected in 2003 in the aftermath of this crisis, signalling an end to the country's embrace of the Washington Consensus. Cristina Fernández de Kirchner, elected to the first of her two terms in 2007, asserted an even stronger state role in regulating economic relations. For example, she expanded direct payments to poor households with children and increased the minimum wage for non-unionized workers (Grugel and Riggiozzi, 2012; Rivera-Quñones, 2014). The economic successes of *kirchnerismo* had much to do with burgeoning international markets for agricultural products, particularly soy (Richardson, 2009); exports helped propel Argentina's economy to average annual expansion rates of 9 per cent during Néstor Kirchner's administration (Levitsky and Murillo, 2008). Indeed, some consider soy to be the crop that lifted Argentina from the depths of its economic crisis (Hora, 2010). By 2007, 53 per cent of all cultivated acreage in Argentina was planted in soy, nearly all of it transgenic (Barsky and Gelman, 2009) and destined for export. No-till techniques associated with the capital-intensive production model allowed the soy frontier to expand outside the pampean agricultural core to areas historically considered too dry or infertile, including wooded terrains that were subsequently deforested (Cáceres, 2015). By 2012, soy accounted for nearly 30 per cent of foreign currencies generated through export (Hilbert and Galligani, 2014) — which made it highly important to a government faced with dwindling reserves and shut off from most international credit. Argentina's massive *sojización* positioned it to respond to strong EU demand for biofuels, as well as to take advantage of US biofuel production incentives.

Production of biodiesel from soy was encouraged under the Kirchner administrations through a system of differential export taxes, with lower tariffs for biodiesel than for other soy products that require less domestic processing. The Argentine state supported biofuel development as well through research and development activities on the part of the National Agricultural Technology Institute (INTA), the National Industrial Technology Institute (INTI), the National Scientific and Technical Research Council (CONICET), a government-owned energy firm created under Néstor Kirchner (ENARSA), and various universities nationwide (Carrizo et al., 2009; Lamers et al., 2008). While the national biofuels law attempted to support the growth of smaller domestic processors, a combination of weak internal demand, uncertainty regarding domestic prices, and a policy of currency undervaluation meant that biodiesel production remained oriented toward export. Throughout 2015, neither the initial 5 per cent domestic blending mandate nor the later incrementally increased mandates had been fully met (Joseph, 2015). However, the strong export orientation of Argentina's biodiesel sector was curtailed by a 2013 European Union 'anti-dumping' tariff, which took Argentina's differential export tax rate as evidence of an unfair biofuel subsidy; this action largely closed European markets for Argentine biodiesel.

With the export-oriented soy and biodiesel infrastructure in place, questions of 'fairness' largely hinged on export tax policies that would capture some of soy's soaring profits to fund the social welfare programmes of an increasingly interventionist state. The country's soy and biodiesel processing infrastructure was heavily concentrated in a small number of wealthy companies, with strong representation from multinationals (Rivera-Quiñones, 2014). From initially very low levels, export taxes on soy, soy oil and biodiesel reached 35 per cent, 32 per cent and 5 per cent, respectively, by 2007 (Carrizo et al., 2009) and would continue to climb as soy markets strengthened. Taxes on soy came to play a prominent role in a larger process of wealth redistribution from large agricultural producers and multinationals to poor and working-class Argentines and to help fund subsidy, infrastructure and media projects favoured by the Kirchners (Richardson, 2009). Under Néstor Kirchner, for example, soy taxes went towards fund subsidies for basic foodstuffs such as beef, chicken and wheat, as well as to subsidize energy, transportation and public pensions and salaries (ibid.) and under Cristina Fernández de Kirchner to support direct payments to households with children (Rivera-Quiñones, 2014).

In March 2008, Cristina Fernández de Kirchner proposed Resolution 125, which would have implemented a floating export tax to rise and fall with the international markets on soy, in essence appropriating profits above a certain amount for state coffers. This proposal touched off the *crisis del campo*, a rural protest of unprecedented scale in which disparate and historically fractured rural interests united in a common protest that lasted for months. Landowners, contractors, workers, hauliers and other rural

actors — representing the rural elite, smallholders and the rural working class — participated together, using trucks and farm equipment to install blockades on rural routes and cutting off the movement of agricultural (and other) products throughout the core agricultural region (Hora, 2010).

The strength of the protest provided a glimpse into the diversity of actors invested in *sojización* — including, for example, small landowners receiving high rental income from the *pools de siembra* (financial trusts) and contractors who had gone heavily into debt to acquire massive new planting and harvesting technology. While the Cristina Fernández de Kirchner administration was able to organize a 1 April counter-demonstration consisting of various Peronist allies (with the notable absence of the rural workers' union), adherents of the rural protest demonstrated staying power and attracted broad rural support. The protests even attracted the support of middle- and upper middle-class urban populations in Buenos Aires who were generally disenchanted by the politics of *kirchnerismo*. The showdown with Cristina Fernández de Kirchner lasted through harvest season from March until July, when the tax proposal was narrowly defeated in the Senate; Vice President Julio Cobos cast the tie-breaking vote against the measure. The defeat of Resolution 125 was a victory for the rural elite against the rentist tendencies of the Fernández de Kirchner administration; it did not, however, mark the end of high export taxes on soy products or of tax rate variability. Seeking to enrol new allies in the tax scheme in the wake of this conflict, the administration established the Fondo Solidario de Soja (Shared Soy Fund), which distributed soy revenues to provinces and municipalities, thereby cementing multi-scalar governmental interest in the continuation of the soy production model.

In addition to this highly visible protest animated by the immediate beneficiaries of soy, the *sojización* of Argentina sparked a number of smaller but collectively important civil society actions in rural communities. The intensive use of herbicides associated with the transgenic model led to numerous local conflicts, some ultimately resulting in the establishment of herbicide spray buffer zones around communities and successful lawsuits against herbicide applicators (Cáceres, 2015). As the soy frontier spread northward and westward, it increasingly put pressure on forested areas and other lands traditionally inhabited by peasant and indigenous populations, leading to numerous regional conflicts regarding land rights and deforestation. This dynamic stimulated the organization and mobilization of indigenous and peasant populations against a particular form of land grabbing in which domestic (rather than multinational) actors played a key role (Brent, 2015). A 2007 nationwide forest conservation law has, to date, done little to stem this wave of land conversion; indeed, soy expansion turned Argentina's northern subtropical dry forests into 'one of the most active global deforestation frontiers of the 21st century' (Gasparri et al., 2013: 1612).

Argentina's vigorous soy-based biodiesel industry is in many ways a product of the neoliberal transformations of the 1990s, one that subsequently

enrolled in the domestic and international politics of soy and biofuels under the post-neoliberal Kirchnerist model. In classic neo-extractivist fashion, the state considered questions of social inclusion not at the point of raw material (i.e., soy) production, but rather at the point of export where profits could potentially be appropriated by the state and used to fund social welfare programmes (Burchardt and Dietz, 2014). However, social movements challenged this agrarian, neo-extractivist model on multiple fronts. The production of soy itself, which entails both agricultural expansion to traditionally marginal areas and the increasing use of agrochemicals, was opposed by many communities and peasant organizations at the local level. These groups were concerned about environmental, health and livelihood impacts as well as the dispossession of lands. At the same time, the state's ability to appropriate the profits of soy product exports was challenged by a diverse suite of rural actors who stood to benefit from the soy economy. Furthermore, Argentina's position as a global biodiesel supplier was limited 'from above' by the anti-dumping duties imposed by the European Union. Thus, this particular case of neo-extractivism was buffeted by forces operating at various scales, all of them outside of immediate national state control.

## **Brazil**

The Partido dos Trabalhadores (PT) (Workers' Party) government took office in 2003 in the midst of intense social conflicts in the countryside brought about by the general discontent with the 1990s neoliberal project (De-Castro et al., 2014). Four pillars underpinned the rural development strategy policies of the PT government: (1) agrarian reform; (2) support of family farming; (3) social protection; and (4) state investment and intervention directed to the rural poor (ibid.). In line with these pillars, one of the platforms of Lula's presidential campaign was fairer biodiesel production. As articulated in an interview with a spokesperson from the Executive office of the President, Lula spearheaded the national biodiesel policy because he was convinced that biodiesel production could help reduce poverty in the countryside. He recalled Lula's role in PNPB enactment: 'Biodiesel was a vision of President Lula, he believed that family farming had the potential to produce food and also to participate in the supply chains that produce oil; this was his political decision'.<sup>6</sup> Thus, Lula attempted to shift from a long-standing biofuel policy bias started in 1975 with the national alcohol programme (Pró-Álcool), which privileged agribusiness over a family farming approach that attempted to improve the terms of small farmers' incorporation in the biodiesel market.

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6. Interview, spokesperson from the Executive Office of the Presidency of Brazil, Brasília, 22 October 2015.

In 2003, the PT government instituted the Interministerial Executive Committee to generate a set of recommendations to balance biodiesel's economic and technical and social inclusion aims in order to legitimize biodiesel expansion. This committee included social and state actors with contrasting demands, such as ministries, rural unions and agribusiness associations. Within the state, the Ministry of Mines and Energy (MME) emphasized the economic viability and competitiveness of biodiesel in relation to diesel as it was not willing to subsidize the difference between the consumer and producer prices.<sup>7</sup> The Ministry of Agrarian Development (MDA), in contrast, attempted to channel the demands of family farmers for state support and participation of this sector in the biodiesel market. Similarly, society actors mobilized to voice their demands. Congressmen from the north-east and north regions sought greater state intervention to promote the participation of alternative feedstock such as oil palm and castor beans. Conversely, the Brazilian Biodiesel Association (UBRABIO) and Brazilian Vegetable Oils Industry Association (ABIOVE), organizations that represent the soy complex, exerted a strong lobby from the beginning to ensure equal market conditions for soybeans.<sup>8</sup>

Recommendations from state and society actors were later incorporated into several decrees and laws, including tax policies and incentives, bio-fuels blending mandates and mechanisms for family farming participation. Responding to the demands of the MME, biodiesel policy was modelled on the technical success of *Pró-Álcool*. This included the establishment of minimum fuel blends (from 2 per cent in 2005 to 7 per cent in 2014), guaranteed low prices versus gasoline and diesel, the creation of credit lines for biodiesel mill infrastructure and the establishment of systems for biodiesel distribution (MME, 2004).

However, the industrial soybean complex was also successful in advocating for an equal treatment for soy and blocked state support for greater inclusion of other feedstocks that would detract from its dominance in the biodiesel market. Soy sector actors also had the capacity to strongly influence the biodiesel policy regulatory framework, especially in pressing for an increase in the mandatory blend of biodiesel, and access to credits from the National Bank for Economic and Social Development (BNDES) to invest in processing plants. The National Confederation of Agricultural Workers (CONTAG), a breeding ground for the PT in rural areas (Baletti, 2016), managed nevertheless to introduce the Social Fuel Seal (SCS), a certification granted by the MDA for which biodiesel processing companies must meet mandatory quotas of biodiesel feedstock from family farms per region (Pousa et al., 2007). As part of the SCS programme, family farmers were provided with access to lines of credit through the National Programme for Strengthening Family Agriculture (PRONAF).

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7. Interview, representative of Ministry of Mines and Energy, Brasília, 21 October 2015.

8. Interview, representative of ABIOVE, Brasília, 21 October 2015.

PNPB was launched in December 2004 with a focus on family farming participation in the biodiesel market in alliance with the state and agribusiness, and on a geographical distribution of biodiesel production with special emphasis in the north and north-east regions — the poorest regions of the country. To guarantee this, the state purchases and sells biodiesel through public auctions organized by the National Agency of Petroleum (ANP). The auctions were designed to allow the state to regulate and control the commercialization of biodiesel to ensure that the minimum biodiesel feedstock quotas are met by family farms and by different regions of the country (Government of Brazil, 2005a) and to avoid the biodiesel market being dominated by only one feedstock, especially soy.<sup>9</sup>

The PT also reshaped the role and capacity of the Brazilian Agricultural Research Enterprise (EMBRAPA) to favour feedstock diversification and to improve biodiesel production. Since its inception, EMBRAPA's research has been strongly associated with particular interests and demands of corporate groups (Córdoba and Jansen, 2014b). In 2006, the PT government created EMBRAPA Agroenergia and enacted a national agro-energy plan to support the development of technologies that not only benefited large-scale agriculture but also family farming (Government of Brazil, 2005b). Research focused on diversification of biodiesel crops, especially native oilseeds that can be grown in different biomes of the country and by family farmers, to improve crop productivity and the effective use of by-products. EMBRAPA also led national agro-ecological zonings to discipline the expansion of biodiesel feedstock and respond to environmental concerns about the expansion of soy and deforestation threats to important biomes such as the Amazon.<sup>10</sup> Likewise, the PT government, in alliance with the soy complex, released a Soy Moratorium, the first zero-deforestation voluntary agreement in the world in which soybean traders agreed to purchase only soy from lands that were deforested before July 2006 (Gibbs et al., 2015).

Although the PT government formally promoted family farming, technical assistance services and seedlings and input provisions crucial for feedstock production were contracted to agribusiness, which offered these services in exchange for a series of tax incentives. Similarly, to access state loans, farmers needed to be tied to a single processing mill through a long-term contract, thus generating dependence ties with agribusiness. In 2009, the PT government amended the policy to enhance the role of cooperatives in biodiesel feedstock production and marketing, especially in the northern and north-eastern states where cooperatives have historically been weak and where poverty rates are higher (Stattman and Mol, 2014). This was due to pressures coming from CONTAG, which criticized the unequal power

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9. Interview, spokesperson from the Executive Office of the Presidency of Brazil, Brasília, 22 October 2015.

10. Interview, representative of EMBRAPA Agroenergia, Brasília, 22 October 2015.

relation between family farmers and agribusiness in the biodiesel market. CONTAG argued that farmers could improve their bargaining position vis-à-vis agribusiness by organizing themselves into cooperatives.<sup>11</sup>

Despite its critics, CONTAG has been a key actor to confer legitimacy to PNPB in rural areas. Historically, CONTAG had developed its political claims around the class demands of rural workers and family farmers (Houtzager, 2001). As Flexor et al. (2011) observed, CONTAG mobilized family farmers 'from below' around biodiesel production and articulated its bases at regional and local levels to participate in the negotiations between farmers and agribusiness. To achieve this, CONTAG trained its local leaders and pushed for a more protagonist role for cooperatives in production and in biodiesel processing.<sup>12</sup>

Responses to PNPB from society actors, including scholars and NGOs, were not homogeneous, however, and a debate on contrasting viewpoints emerged among those who advocate for greater market integration for family farmers and those who are critical of PNPB's market-oriented intervention. Those who advocate for family farmers agree that the government should use the state apparatus to improve conditions of market entry (Abramovay and Magalhães, 2008). Others, like the Movimento Sem Terra (MST) or Movements of Landless Workers, one of the most powerful social movements in the country, see the PT model as incapable of presenting an alternative to the agribusiness model.<sup>13</sup>

PNPB implementation in 2005 boosted biodiesel production, which amounted to only 740 m<sup>3</sup> that year. With the first PNPB auction in 2006 the production increased to 69,000 m<sup>3</sup> and reached 2.9 million m<sup>3</sup> in 2015 (Government of Brazil, 2015). In 2013, soybeans produced mainly by agribusiness accounted for 73 per cent of the raw material, followed by animal fat with 20.5 per cent. Alternative oilseeds together accounted for only 6.5 per cent of the total production. The participation of family farms has increased since PNPB began, from 28,656 families in 2008 to 72,382 in 2014, although their total production share is only 29 per cent (*ibid.*).

Several barriers inhibited diversification and family farmer participation. First, although PNPB encouraged the expansion of alternative feedstocks such as oil palm and castor bean in the north and north-east regions, to date these crops have been rarely used for the biodiesel market. Our own research in the northern region echoes the findings of Stattman and Mol (2014) that these alternative oils are not competitive with cheap soybeans, which have depreciated in the international market, and therefore are sold to markets with higher added value such as cosmetics and food.

Second, research to increase productivity and maximize processing of alternative raw materials (palm or castor oil) has taken place at a slower pace

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11. Interview, representative of CONTAG, Pará state, Belém do Pará, 19 October 2015.

12. Interview, representative of CONTAG, Pará state, Belém do Pará, 19 October 2015.

13. Interview, representative of MST, Pará state, Belém do Pará, 16 October 2015.

than PNPB implementation. EMBRAPA started some tests in pilot plants and engines with different types of biodiesel, applying existing technologies used with traditional crops such as soybean and sunflower to new crops such as *Jatropha curcas Linnaeus* (*Jatropha*) and castor bean (Government of Brazil, 2005b), but had limited success. Despite state efforts towards feedstock diversification, the low productivity of alternative crops compared with soybeans continues to limit these efforts.<sup>14</sup>

A third barrier was the structural disparities in biodiesel production infrastructure among Brazilian regions. The capital available to invest in new plants has come from the powerful soybean production and crushing industry. The soy complex is located in the mid-west region, where soybean production is concentrated, and where 27 of the 58 biodiesel processing plants in the country are located. In the north and north-east Regions there were only three plants in each as of 2015 (Government of Brazil, 2015). State capacities to reduce regional disparities in biodiesel production infrastructure have been limited. Petrobras Biocombustível (PBio), created as a subsidiary of the parastatal petroleum company Petrobras, had built only three biodiesel plants up to 2015, two in the north-eastern states of Bahia and Ceará and one in Minas Gerais in the south-eastern part of the country.

Similar to patterns in Argentina, Brazil experienced exponential expansion of soy since the 1990s, led by the introduction of GMO seeds, high commodity prices and neoliberal policies favouring foreign investments (Costa and De-Santana, 2014). As the Brazilian soy complex is highly concentrated, only 10 per cent of companies control 72 per cent of soybean processing, inputs and machinery (*ibid.*). PT reformist policies had little impact in challenging the soy complex influence in the biodiesel system and, on the contrary, the PT formed an alliance to strongly support this sector. For example, in 2007 the government established the Growth Acceleration Programme (PAC 1) 2007–10 which was extended for 2011–14 (Salim, 2015). This programme offered state support for infrastructure development that included port improvements and extended railways that benefited soybean exporters in mid-western Brazil (*ibid.*). Through PNPB, the soy complex also expanded accumulation by steering soybean oil to the biodiesel market while encouraging the export of processed soybean meal. As the agro-industrial soy complex realized that PNPB meant more support for them, they became the strongest supporters of the PNPB programme, investing their capital in new biodiesel processing plants and infrastructure. In sum, PT reformist impulses to include family farmers in the biodiesel chain and state support to expand soy complex capital accumulation were implemented simultaneously, limiting PNPB's capacity to change the underlying disparities between these two actors.

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14. Interview, representative of EMBRAPA Agroenergy, Brasília, 22 October 2015.

## Uruguay

Uruguay has no domestic petroleum production and therefore is highly dependent on oil imports to meet fuel demands. Because energy production and management are crucial for economic development, these functions historically have been controlled by the state. Uruguay's state-owned oil company, ANCAP, created in 1931, administers oil importation and refining. In 2001, under the government of the conservative Partido Colorado, the Parliament approved Law 17.567 that prioritized for the first time the use of biofuels in the national energy matrix. The government declared 'of national interest the production in the whole country of alternative, renewable and *substitutive* oil by-products, produced with domestic inputs of animal or vegetable origin' (Bittencourt and Lorenzi, 2009: 20, emphasis in the original). This law, however, was not implemented because its regulations were never published (Joseph, 2009).

Argentina's economic crisis that resulted from structural adjustment measures in the 1990s negatively affected the strongly dependent Uruguayan economy. Unlike in Argentina, the strong social pressure of the trade unions in Uruguay, with the support of the leftist Frente Amplio (FA) party and other social sectors, prevented the privatization of state companies, including ANCAP. Social discontent led to the victory of the FA in 2004 elections, which rose to power as an alternative to the neoliberal project (Narbondó, 2012). The FA resumed the energy policies of the previous government but also pushed an agenda in which renewable energies, including biofuels, were framed as strategic resources to achieve 'energy sovereignty' to reduce imports of petroleum; the state therefore needed to play a central role in their development. The first step was the establishment in 2005 of the National Bioethanol Programme (Pronabio-E, administered by ANCAP) to coordinate the production of ethanol in different agricultural regions throughout the country (Rothkopf, 2007). In the same year, the FA government created an inter-ministerial coordination group that included the main state institutions to design future biofuel policies and strategies. This group was led by the Ministry of Industry, Energy and Mining (MIEM), the Ministry of Housing, Territorial Planning and Environment, the Ministry of Agriculture, Livestock and Fishing, with the cooperation of the University of the Republic, and the Institute of Agrarian Research (INIA), among other institutions (Bittencourt and Lorenzi, 2009). The creation of this coalition assured wide political support of recommendations and policies adopted in the following years.

The FA included substantial changes in public policy to facilitate biofuel production and marketing. These changes continued with the 'reproduction of a welfare state' model with some articulations with neoliberalism (Narbondó, 2012: 303). In 2007, the leftist president Tabaré Vázquez enacted Law 18.915 to regulate the production, marketing and use of biofuels. Vázquez highlighted the social aims of this policy as follows: 'this new

power generation [biofuel] seeks to expand the energy matrix, implies also ... the possibility of improving the quantity and quality of jobs. This is the best social policy that any government can carry forward' (ANCAP, n.d.). Law 18.915 entrusted ANCAP with the regulation of imports and domestic commercialization of fuels, and mandated blending gas with 5 per cent ethanol as a minimum by 2014, and diesel with 5 per cent biodiesel as a minimum by 2012 (ALUR, 2014). The government also provided tax exemptions to biofuel private investments since ANCAP no longer had the monopoly of producing and exporting biofuels.

Public policy changes also included the strengthening of infrastructure as a major step towards building the country's capacity for biofuels production. In 2006, ANCAP took control of Alcoholes del Uruguay S.A. (ALUR), a private company, to integrate bioethanol and biodiesel production, sugar, cattle feed, and biomass electricity generation. As of 2016, ANCAP has four biofuel plants across the country, all linked to a government project in which jobs and small and medium farmers' share in production of feedstock were prioritized. These plants operate as a public-private partnership: they have private administrations but are under ANCAP's control as the main owner. Similar to the PNPB policy in Brazil, the plants are located in different regions of the country to maximize social and economic impacts.

The first plant was built in the north-west of the country (Bella Unión), in a traditional sugarcane area that had dramatically declined after the Mercosur agreement was signed in 1994. With the new leftist government in power, and in an effort to give an economic boost to depressed areas, ALUR received the technical cooperation of Petrobras, and designed and adapted a sugar and alcohol project inspired by the Brazilian model, which combined industrial and agricultural investments (Joseph, 2009). Fostering sugarcane plantations in an economically depressed region was regarded as being indispensable to making progress toward building 'energy sovereignty' and to gaining social support of producers, especially of those who had scarce resources and were in vulnerable situations. Thus, the state subsidized the production of 10,000 ha of sugar cane and the processing of sugar before biofuels production was the main industrial product of the company. The second and third plants, located in Montevideo, were established to support (among others) sunflower and canola, crops that had been in decline due to the exponential growth of soybean at the beginning of the 2000s. Here, state support aims to include farmers with a maximum of 200 ha in feedstock production and create job alternatives in metropolitan areas. The fourth and largest plant, built in 2012 in the north-west region, is contributing to more than 10 per cent ethanol mixture with gas (ALUR, 2014).

Although soybean production in Uruguay expanded 1000 per cent during 2002–10 (Gras, 2013), in 2014 only 38 per cent of biodiesel came from this oilseed (ALUR, 2014). This is due in part to the slower development of the soybean crushing infrastructure since the country exports 88 per cent of soy as beans (Oyhantçabal and Narbondo, 2014). It is also due in part to the

FA making strong efforts to diversify biomass for biofuels and providing funding in support of this goal. For example, public agencies such as INIA, and the University of the Republic, collaborate in joint research projects with ANCAP to evaluate the adaptation and efficiency of crops such as canola, sweet sorghum and sweet potato for biofuels production (Fassio et al., 2011). The government also supports programmes to increase canola and sunflower plantations. Between 2008 and 2010, ALUR launched a plan that consisted of the creation of an agricultural fund to finance the seeds and inputs and guarantee purchase of canola and sunflower products (*El Observador*, 2011). In 2015, ALUR planned to process 1 million tons of raw materials, including sugarcane, sweet sorghum, soybeans, canola, animal fat, recycled oil and forest biomass for biofuels, and substituted 10 per cent of imports of oil with biofuels (*La República*, 2015b). By 2014, about 180,000 ha of crops (15 per cent of the total area covered by crops) in 15 out of the 19 departments of Uruguay were estimated to be under contract with ALUR (Samuelle, 2014). ALUR's intervention has generated about 4,000 jobs in the biofuel chain (direct jobs, transportation and services), which according to its Director, is evidence of a 'strong social impact' (*El Observador*, 2014a).

Biofuel production grew steadily in concert with these state projects. By 2015, ALUR produced 50,960 m<sup>3</sup> of biodiesel and 71,317 m<sup>3</sup> of ethanol, the highest volume to date,<sup>15</sup> and the percentage of blending was also the highest to date at 7 per cent of diesel for biodiesel and 10 per cent of gas for ethanol (*La República*, 2015a). According to ALUR's Executive Director, production of biofuels will allow for the reduction of 10 per cent or more of oil imports. In the future, with the new industrial capacity, he estimated that the proportion of ethanol in gas could reach over 10 per cent (*El Observador*, 2014b), that is, at least double the goal set by the biofuel policy for 2014.

Biofuel production in Uruguay has been far less contested by rural organizations than in Argentina and Brazil. In interviews conducted in 2007 with family and entrepreneurial farmers regarding their perspectives on biofuels production, family farmers highlighted the key role that the state would play in the definition and implementation of bioenergy policies and the need to foster relations with potential producers. They identified the state as a crucial actor to make family farmers economically viable, by providing a fixed price for the grains and committing to buy a specific product. This is well illustrated in the following quote from a family farmer in Canelones, Montevideo: 'If the state is not behind us, it is not good for us. . . . We are not saying that large farmers can't plant, but it has to be managed, because otherwise family farmers will stay out of this business . . . we are not prepared for that. So if you do not have support to defend family farmers, we're screwed'.<sup>16</sup> By contrast, members of the opposition (centre-right parties) criticized what they argued were 'wasteful subsidies' provided to farmers' production and

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15. Interview, manager director of ALUR, Montevideo, 11 April 2016.

16. Interview, family farmer, Canelones, Uruguay, 18 December 2007.

state infrastructure for biofuel. Likewise, entrepreneurial farmers organized in the Biodiesel Chamber of Uruguay viewed state intervention with greater mistrust, given that the national company (ANCAP) is a monopoly which could be less advantageous for large farming enterprises and their specific interests (Carámbula et al., 2011). In addition, the private sector's interest in participating in biofuel production is lower than in Argentina and Brazil due to the country's small crushing capacity, higher cost of feedstock and few opportunities for export, given state prioritization of domestic markets (Joseph, 2009).

ANCAP's decision to make biofuels production complementary rather than a substitute for other production (especially food crops) was emphasized by one of ANCAP's biofuels programme coordinators: 'We don't intend with this project to substitute any production, we're going to municipalities, to farmers' organizations, and we say that we don't want bioenergy production to substitute even one cow. We want to have it as a complementary product'.<sup>17</sup> As a state company, ANCAP positioned itself to lead and manage biofuel production in Uruguay. It attempted to control market forces, negotiate prices with farmers for the feedstock and initiated biofuel infrastructure and technological development. Strong state support for local livelihoods, local feedstock production and diversification, and the inclusion of small and medium farmers prevented transnational corporations from taking control of the energy sector, thus challenging the assumption of biofuel production as an extractive activity.

## **CONCLUSIONS: STATE–SOCIETY RELATIONS AND CONTRASTING PATHS TO BIOFUELS PRODUCTION IN THE SOUTHERN CONE**

Adopting a strategic-relational approach to state intervention (Jessop, 2001, 2008), this article analyses why and how national biofuel policies in the 'pink tide' governments of Argentina, Brazil and Uruguay were formed and implemented. Our case studies help illustrate the inherent contradictions embedded in neo-extractivist policies between extractive capitalism and state goals to generate distributive and socially inclusive development. Despite commonalities, we show that each of these countries followed a contrasting path that contributed to varying levels of success in achieving a post-neoliberal biofuels development model. In Argentina, the neoliberal transformations of the 1990s strongly restructured rural society, setting conditions for agrarian neo-extractivism, an intensive industrial model of soy production across landholdings of all sizes, dominated by multinational firms producing soy products, including biodiesel for export in the wake of the 2006 Law 26.093. The state took a decidedly rentist position, attempting to appropriate proceeds from this model through a system of differential export taxation to

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17. Interview, ANCAP biofuel programme coordinator, Montevideo, 14 November 2007.

fund social welfare-oriented programmes. The post-neoliberal administration of Cristina Fernández de Kirchner found, however, that there were limits to the extent to which rural social actors would allow the state to impinge upon soy's profits. The rentist post-neoliberal state was opposed by an alignment of traditionally loyal rural smallholders with the large export-oriented multinationals on the one hand, and by the poorest and most marginalized rural communities on the other. Yet the economic promise of soy-based exports meant that reversing course on *sojización* — and therefore embracing alternatives to neo-extractivism — was essentially unthinkable.

In Brazil, the PT government advanced the PNPB programme to change the bias of a long-standing policy in favour of agribusiness and to move to an approach that would allow the inclusion of family farms, facilitating the diversification of biodiesel feedstock and the participation of the poorest regions. However, instead of challenging the control of agricultural elites of the biodiesel market, represented in the soy complex, the PT government's strategy was to embrace both sectors at the same time. On the one hand, it continued with agrarian neo-extractivism by yielding to the powerful business interests of the soy complex and relying on them to shape the biodiesel policy. On the other hand, it introduced some reforms to expand biodiesel production to improve the livelihoods of family farmers. This article demonstrates that the contradictions in neo-extractivist biofuel policies are rooted not only in the limitations of other feedstocks to compete with soybean, but also in the competing aims and political dynamics between state agencies and the influence of the soy complex. With its strong connections to transnational capital, the soybean industry can shape biodiesel policy as well as interact with and pressure the state to make changes in its favour.

The case of Uruguay, on the contrary, challenges many assumptions about the socio-economic impacts of biofuel production and about the impossibility of progressive governments to break with neo-extractivism. The FA government, in confluence with producers and strong state intervention in infrastructure, made progress toward building 'energy sovereignty' rooted in the support of local livelihoods, employment generation, and social inclusion measures. State capacity and collective will were crucial in the development of biofuels policy. The FA government created a multi-institutional structure that included the main ministries and research institutions to ensure that biofuel production was not dependent on soybean and did not threaten the country's food security. In addition, the state's participation in the whole biofuel chain, including infrastructure, and the participation of a diversity of small and medium producers were also crucial to provide a framework that could guarantee biofuels production in the long term.

The case studies analysed here make clear that it is not enough to evaluate biofuel policies of progressive governments in the context of dynamic global capitalist development and the accumulation interests of the state to expand a neo-extractive model in alliance with capital. We argue, instead, that contradictions also emerge when national biofuel policies intending to combine

social inclusion and capital accumulation measures for alternative development intersect with the prevailing and competing interests of agribusiness and state actors. Progressive reforms in biofuel policy are recast and used for different ends as these interact with powerful actors such as the multinational soybean complex. But this is not a one-way political dynamic. Some popular movements also shape policy design and others resist prevailing policies. The scope of progressive policies is thus largely conditioned by pre-existing social structures and institutions and state–society interaction. As we show, some of these institutions, structures and actors facilitate progress while others hinder it. This is important to take into account, especially now that the cycle of progressive governments in the region has apparently reached a nadir.

Our intention in this article was not to challenge the core concept of neo-extractivism. Rather, we provide empirical elements to explore additional analytical possibilities. Two elements seem particularly useful for future research. First, we should start by understanding the position of the state and its role in social affairs. Abrams (1988) reminds us to demystify the state, in the sense of not conceiving it as a single and unified entity, an external force that is distinct — and far away — from society. For him, the state is not a thing, nor an object with coherent policies, and therefore there are different levels within the state. Our task, following Abrams, is to unpack the different manifestations and forms the state takes to avoid reducing it to the political powers that dominate it. Second, the argument that monocrops and biofuels are other forms of neo-extractivism (Svampa, 2012) that illustrate ‘a subordinate and functional international integration to globalization’ (Acosta, 2011: 100–01) is overgeneralized. As we show, progressive state-driven interventions in Uruguay, and to a lesser extent in Brazil, are intended to prevent the negative societal implications of biofuels production through feedstock diversification, employment generation, and small farmers’ participation and income generation, which in turn create a legitimized base for neo-extractivism. More case study research is needed on agriculture and neo-extractivism to advance our understanding of the features that distinguish agriculture from mining and hydrocarbon extractive activities, and the possibilities to move from natural resource extraction to production that benefits local communities.

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**Diana Córdoba** (corresponding author; [dianamarcela.cordoba@gmail.com](mailto:dianamarcela.cordoba@gmail.com)) is a Postdoctoral Fellow in the Environmental Studies department at State University of New York, College of Environmental Science and Forestry in the USA. Her general topics of interests are: (1) state and private development interventions for poverty reduction; (2) the creation, use and governance of new technologies and knowledges; and (3) local social and ecological processes and outcomes in agriculture and natural resource management.

**Marta Chiappe** ([mchiappe@fagro.edu.uy](mailto:mchiappe@fagro.edu.uy)) is a Professor at the Facultad de Agronomía, Universidad de la República in Uruguay. Her research interests include sustainable agriculture and family farming; gender, land rights and indicators of sustainable agriculture. She has published her work in *Rural Sociology*, *Journal of Sustainable Agriculture*, *Agricultura*, *Sociedad y Desarrollo*, *Revista Pampa* and *Agrociencia*.

**Jesse Abrams** ([jabrams@uoregon.edu](mailto:jabrams@uoregon.edu)) is a Research Associate with the Institute for a Sustainable Environment at the University of Oregon in the USA. His research focuses on natural resource governance, rural community dynamics and the social and political dimensions of ecological restoration.

**Theresa Selfa** (tselfa@esf.edu) is an Associate Professor in the Environmental Studies department at State University of New York, College of Environmental Science and Forestry in the USA. Her research focuses on environmental governance and politics of agrifood, energy and water systems in Latin America and the USA.