

Ordinary land grabbing in peri-urban spaces: land use conflicts and governance in a small Colombian city

Article

Accepted Version

Creative Commons: Attribution-Noncommercial-No Derivative Works 4.0

Feola, G., Suzunaga, J., Soler, J. and Goodman, M. K.
ORCID: <https://orcid.org/0000-0003-4861-029X> (2019)
Ordinary land grabbing in peri-urban spaces: land use
conflicts and governance in a small Colombian city. *Geoforum*,
105. pp. 145-157. ISSN 0016-7185 doi:
10.1016/j.geoforum.2019.05.018 Available at
<https://centaur.reading.ac.uk/81815/>

It is advisable to refer to the publisher's version if you intend to cite from the work. See [Guidance on citing](#).

To link to this article DOI: <http://dx.doi.org/10.1016/j.geoforum.2019.05.018>

Publisher: Elsevier

All outputs in CentAUR are protected by Intellectual Property Rights law, including copyright law. Copyright and IPR is retained by the creators or other copyright holders. Terms and conditions for use of this material are defined in the [End User Agreement](#).

www.reading.ac.uk/centaur

CentAUR

Central Archive at the University of Reading

Reading's research outputs online

Ordinary land grabbing in peri-urban spaces: land conflicts and governance in a small Colombian city

Giuseppe Feola^{a,b}, Jaime Suzunaga^{c,d}, Jenny Soler^c, Michael K. Goodman^b

^a Utrecht University, Copernicus Institute of Sustainable Development

^b University of Reading, Department of Geography and Environmental Science

^c Fundación Jischana Huitaca

^d Universidad Pedagógica y Tecnológica de Colombia, Facultad Seccional Duitama, Colombia

Corresponding author: Giuseppe Feola, Utrecht University, Copernicus Institute of Sustainable Development, Princetonlaan 8, 3584 CB Utrecht, The Netherlands. g.feola@uu.nl, +31 30 253 5763

<https://doi.org/10.1016/j.geoforum.2019.05.018>

Abstract

Emerging scholarship on urban land grabbing has urged researchers to take more nuanced perspectives on land appropriation. There is the need to understand the actions of and interactions amongst a multiplicity of local actors—beyond large-scale investors and global cities—when considering land grabs in the spaces of urban development. Therefore, this paper analyses what we conceptualise as the more ‘gradual’ and ‘ordinary’ dynamics of land dispossession in the peri-urban spaces of the small-scale city of Sogamoso, Colombia. Based on 38 semi-structured key-informant interviews, we explore everyday actions, actors and power relations involved in urban expansionism, mining, farming and ecosystems conservation as these activities seek to coexist and compete for the same, relatively sparse amount of peri-urban space. We find that land appropriation is facilitated by multi-level policy incoherence and the failures of municipal governance. Policy incoherence results in normative uncertainty and weak environmental governance, while a lack of coordinated municipal governance in peri-urban spaces leads to further small scale, ‘ordinary’ and therefore ‘invisible’ conflicts, to the detriment of citizens’ livelihoods. This paper contributes to understanding spatially differentiated urban land appropriation, and its articulation with local, gradual, subtle and more hidden land use conflicts, governance regimes and power relations at the scales of the everyday. Our findings suggest the need to theorize urban land grab also as a result of ordinary, place-based, quotidian dynamics that emerge from governance problematics, including policy incoherence, and land use conflicts, and from the intersection of a more diverse set of drivers, mechanisms and actors than discussed in the extant literature with focus on large urban centres.

Key words

Urban land grabbing; Environmental governance; Policy coherence; Agriculture; Peri-urban space; Colombia.

1. Introduction

Emerging scholarship on ‘urban land grabbing’¹ has urged researchers to take more nuanced perspectives on land appropriation, especially in the global South. Steel et al. (2017) have argued that “urban land grab[s] tends to be more fragmented, gradual and therefore less visibly-outstanding than most of the rural examples” (ibid.: 133). Therefore, there is the need to understand the actions of and interactions amongst a multiplicity of local actors beyond large-scale investors and governments when considering land grabs in the spaces of urban development in key parts of the global South (Xu, 2018; van Noorloos et al., 2019). Indeed, as shown by Zoomers et al. (2017; see also Zoomers, 2010; Ros-Tonen et al., 2015; List, 2017), some of the more subtle dynamics of urban land grabbing take place in peri-urban spaces where urban expansion is a major force of land appropriation.

Colombia is an important testbed for theories of urban land grabbing and governance of peri-urban spaces. We see two reasons for this. First, starkly unequal access to land has been at the root of decades of armed conflict and its resolution is at the core of the peace agreement signed by the armed group FARC-EP and the Colombian Government in 2016 (LeGrand et al., 2016; see also Ulloa and Coronado, 2016). Land distribution in Colombia is the most unequal in Latin America and amongst the most unequal in the world (Guereña and Burgos 2016, 2017) with a substantial proportion of land owners not possessing formal land titles for their land. For example, 50% of the land in the region of Boyacá—the area of focus in this paper—is occupied by non-titled inhabitants (Superintendencia de Notariado y Registro, 2018). In addition, land expropriation has been central to the disputed socio-environmental dynamics and injustices throughout Colombia (Ojeda, 2012; Göbel et al., 2014; Grajales, 2011; Richani, 2012). Conflict over land is ubiquitous within the country and economic development has often been pursued through land dispossession (Pérez Martinez, 2004).

Secondly, Colombia has undergone dramatic changes through the decentralization of the governance of its territory through a new State Constitution in 1991, the establishment of environmental institutions and policies through the National Environmental Governance System (*Sistema Nacional Ambiental* – SINA²) (Law 99 of 1993), and the introduction in 1997 (Law 388) of territorial planning (*Planes de Ordenamiento Territorial* – POT) at the municipal level (Andrade Medina and Bermúdez Cárdenas, 2008; Nannetti and Leyva, 2015). However, the effectiveness of these new governance regimes has been questioned. This is mainly about their ability to resist political attempts to weaken them in favour of neoliberal notions of environmental management and economic progress and their ability to deliver sustainability on the ground in post-conflict contexts (Ponce de Leon, Galán and Uribe, 1998; Becerra, 2008; Asher and Ojeda, 2009; Nannetti and Leyva, 2015; Ulloa and Coronado, 2016; Valdés, 2017). Thus, the shifting internal tensions of the governance of territory within Colombia, specifically at the level of smaller municipalities and their peri-urban hinterlands, raises key questions about scale, place and process in working to understand the multifaceted dynamics and contestations of land-use conflicts, land grabbing and questions of sustainable livelihoods.

By examining the case of Sogamoso, Colombia, this paper directly addresses three shortcomings of the extant literature. First, the majority of the urban land grabbing, expropriation and conflict literature and subsequent theory-building has focused on global and large-scale cities in the global North and South (Steel et al., 2017). This focus on large world cities has emphasized an analysis of the influences of global-scale economic processes such as investment flows, financialisation and gentrification on land-use conflicts within cities as well as the cultural economies of city marketing and positioning. These findings and theorizations are much less relevant to the socio-economic contexts of smaller and more

¹ Following Steel et al. (2017:133), the term ‘urban land grab’ is used here to denote “a patchwork of different activities – ranging from land use change to regeneration and redevelopment as well as to new-built and commercial gentrification – with the common objective to appropriate land and to increase its value. [...] [U]rban land acquisition cannot be thoroughly understood in isolation from the workings of urban real estate markets, public policies, and displacement processes”.

² The SINA is defined as the set of guidelines, norms, activities, resources, programs and institutions that allow the implementation of the general environmental principles contained in the Political Constitution of Colombia of 1991 and Law 99 of 1993. The SINA is integrated by the Ministry of the Environment, the Regional Autonomous Corporations, the Territorial Entities and the Research Institutes assigned and linked to the Ministry. The National Environmental Council has the purpose of ensuring intersectoral coordination in the public sphere of policies, plans and programs on environmental issues and renewable natural resources.

marginal cities. Given that more than half of the world's urban population lives within cities of less than 500,000 inhabitants (United Nations, 2016), there is a risk that current urban land-use change scholarship has failed to account for a range of actors, relations and processes which are not observed in larger cities, but which affect land-related dynamics—particularly in peri-urban spaces—and ultimately, sustainable livelihoods and social justice in the majority of the world's urban centres.

Second, while it has importantly called for more nuanced perspectives and an analytical perspective more sensitive to a range of social actors, the urban land grabbing literature has focussed on a relatively limited set of drivers of land appropriation. These include urban expansion, gentrification, infrastructural development, speculation and development investment (Zoomers, 2010; Steel et al., 2017; Zoomers et al., 2017; van Noorloos et al., 2019). Consequently, only a limited range of land appropriation mechanisms have been captured in current theorizations of urban land appropriation. Land appropriation in the peri-urban fringe, as explored here, can be driven by the rush for natural resources or, in biodiversity rich contexts, the imperative to protect ecosystems (cf. Polanco, 2010).

Third, the extant literature on land appropriation and conflict in Colombia has investigated those processes in rural rather than urban spaces given that the rural countryside was where the majority of armed conflict took place and where large-scale land acquisitions have most frequently occurred (Borras et al., 2012; Ojeda, 2012; Ulloa and Coronado, 2016). Urban land appropriation and grabbing in Colombia—and again in the country's smaller to medium-sized cities—is therefore thoroughly understudied and, as a consequence, much less well understood by academics, policy-makers and civil society organizations.

This paper analyses what—in building on the work of Ojeda (2016: 19)—might be called the more 'gradual and ordinary' driving factors of land conflict and dispossession in the peri-urban spaces of the small-scale city of Sogamoso, Colombia. As opposed to the more spectacular, global-scale land conflicts in world and large cities, here we look to explore the fragmented, ordinary and less visible conflicts over peri-urban land use and socio-environmental governance within a smaller urban setting outside of the large rural land acquisitions and armed conflicts that have plagued Colombia's recent past (Goebel et al., 2014; Duarte et al., 2015). We do so by studying the governance of peri-urban space from an integrative perspective, which goes beyond the focus on urban expansion, infrastructural development or gentrification, and embraces multi-level perspectives of analysis. Focusing on these often unnoticed, place-based, quotidian and internally-dynamic forces of land conflict within the city of Sogamoso brings to the fore the 'everyday' actions, actors and power relationships involved in urban expansionism, mining, farming and ecosystems conservation as these practices seek to coexist and compete for the same, relatively sparse amount of peri-urban space.

We continue as follows. First, we situate the paper within debates on peri-urban governance and conflict and urban environmental politics in Latin America and Colombia. Second, we provide background on our case study city of Sogamoso and the methodology of our study. Next, we analyse the ways that the everyday practices of urban expansion, mining and ecological conservation are together in tension with agriculture within the city. Finally, we explore two of the key reasons for these conflicts, namely the problems of policy incoherence and the failures of municipal governance policies and politics. We conclude with a short discussion of our findings—one of the most important of which is the crucial need to understand how everyday, place-based urban land conflicts and governance problematics in smaller cities determine land grabbing and its significant impacts on the lives and livelihoods of peri-urban inhabitants—and suggest areas for further research.

2. Theoretical background

At a broad scale, this study follows Tacoli (2003), Ros-Tonen et al. (2015) and Zoomers et al. (2017) in stressing the crucial role of everyday urban and environmental governance in determining the social, economic and environmental outcomes of urban land-related dynamics. Governance systems often struggle to grapple with the hybrid nature of peri-urban spaces (Ros-Tonen et al., 2015). Thus, it is challenging to constructively govern these spaces given that they extend across defined administrative borders and given the diversity of coexisting urban and rural activities, diverse populations and

embedded relationships found within peri-urban spaces. Urban and environmental governance in Latin America has been found to suffer from various failures and a lack of capacity to develop coherent policy frameworks, which have resulted in land conflicts and appropriations.

In particular, we build on the established environmental governance literatures, which encompass specific debates about land governance. This choice is informed by the recognition of the complexity of ‘hybrid’ peri-urban spaces, which has been duly examined in the governance literature (as reviewed below). Furthermore, by drawing on environmental governance literatures we develop an analytical lens that helps us understand a more diverse set of drivers of land conflict and appropriation, and associated governance issues, than normally considered in the urban land grabbing literature.

2.1 Governance of peri-urban spaces

As borderlands, peri-urban spaces are highly dynamic (Marshall et al., 2009; Gant et al., 2011; Geneletti et al., 2017). They are economically multifunctional, socially diverse and ecologically complex. As Allen (2003: 146) has argued, peri-urban spaces “are characterized by particular possibilities and conflicts as a result of the physical proximity of different land uses and related social, economic and physical processes”. Tacoli (2003; see also Mehta and Karpouzoglou, 2015; Allen, 2003) suggests that we conceptualise peri-urban spaces as a continuum between the rural, in terms of agricultural activities, but also natural resources, and the urban. Yet, this should be a continuum that does not imply a ‘clean’ spatial nor temporal transition from either the rural or urban given that both tend to co-exist within cities at the peri-urban fringe but also beyond city limits. Along similar lines, Pérez Martinez (2016; see also Madaleno and Gurivoch, 2004; Lerner and Eakin, 2011) calls for a decidedly relational approach to peri-urban spaces which would reject rural/urban dichotomies to instead allow for appreciating the multiple actors, scales, networks and organizational forms that characterize the diversity of activities, social groups and biophysical configurations that characterize peri-urban spaces.

However, the urban–rural dichotomy is deeply ingrained in planning systems and this is problematic for processes of environmental and developmental change in the peri-urban context (Allen, 2003; Scott et al., 2013; Ros-Tonen et al., 2015; Geneletti et al., 2017). Mehta and Karpouzoglou (2015) have argued that peri-urban spaces thus continue to be planned as if in a transition towards urban ‘modernity’ despite the complex social, political, technological and cultural realities these spaces represent. The planning process struggles with overcoming geographical barriers and administrative borders, as well as sectorial responsibilities, such as the environment, development and housing (Allen, 2003). Furthermore, representations of these spaces as marginal, socially excluded, vulnerable and characterized by housing illegality (Marshall et al, 2009) compete with those of peri-urban landscapes as ‘green’ and home to ‘rural’ elements such as farming and forestry (Mougeot, 2005; Zoomers et al., 2017). Theories of the persistence of agriculture in and around cities have had difficulties in grappling with the hybrid and relational nature of peri-urban spaces (Madaleno and Gurovich, 2004; Mendez et al., 2005; Lerner and Eakin, 2011; Geneletti et al., 2017). Thus, governance approaches have usually failed to create coherent and holistic institutional, policy and planning arrangements across administrative borders and in the face of unclear government mandates, which are conducive to sustainable peri-urban spaces (De Zeeuw, 2004; Marshall et al., 2009; Lerner et al., 2013).

Local governments play a central role in the governance of peri-urban spaces. Yet, Tacoli (2003) has argued that local governments’ effects on these landscapes depend on the configurations of local and national processes such as land tenure norms and planning laws as well as processes at the international scale. Simon (2008) has stressed that effective planning for extended and hybrid areas requires adequate and appropriate levels of local authority and metropolitan resources that are missing in many countries in the Global South. In addition, he and Dávila (2009) also note that many urban mayors or governors and their administrations have little if any commitment to peri-urban spaces or concern for issues across these landscapes which critically hampers the governance system’s capacity to consider sustainable land use in peri-urban hinterlands.

A major issue in governing peri-urban spaces is the ability of existing governance systems to overcome the fragmentation that results from the diversity of these spaces and their typically disjointed governance regimes. Fragmentation, both social and policy-related, represents a barrier to the holistic and inclusive governance models that may yield positive outcomes by opening the analysis of problems

beyond ‘usual’ borders and policy domains (Ros-Tonen et al., 2015). Ultimately, issues in peri-urban contexts cannot be addressed in isolation from the processes taking place in the wider regions within which they are situated. As Allen (2003: 146) puts it, “[t]his ultimately requires a broadening of the focus of environmental planning and management beyond localized environmental problems to a consideration of the sustainability of the urban bioregion”. In other words, the existence and attempted governance of peri-urban spaces often exposes policy incoherence at and across administrative units and levels. Policy coherence, on the other hand, can be distinguished in three realms: coherence *within* policies, *between* policies and *across* policy domains. Drawing on the work of Cejudo and Michel (2016)³, we adapt their analyses here to explore what policy coherence is and might be in more detail in Table 1.

For Allen (2003), specific deliberative bodies and more unconventional governance models—including integrative narratives and participatory approaches—are needed to address the governance of peri-urban spaces in an integrative and coherent manner, and to manage trade-offs between activities and their differential impact on distinct populations (Marshall et al., 2009; Scott et al., 2013; Ros-Tonen et al., 2015). In the absence of such fora, social groups such as more marginalized populations, resort to patronage and other informal everyday strategies and coping mechanisms such as those explored by Mehta and Karpouzoglou (2015) regarding water use conflicts in peri-urban Delhi, India.

Table 1. Definitions of policy coherence at different levels (elaborated by the authors based on Cejudo and Michel (2016) and Nilsson et al. (2012)).

Coherence levels	Coherence aspects	Description
Within policies (internal coherence)	Means-goals	There is alignment between precisely identified goals and well-coordinated means (instruments).
Between policies (within the same policy domain)	Objectives	There is coherence between two policies when the achievement of the objectives and the implementation of policy ‘A’ reinforce the achievement of the objectives and the implementation of policy ‘B’, or at least they do not hinder them.
	Instruments	There is coherence between two policies when two policies share the same type of target population, but use different, albeit complementary, instruments to solve a public problem.
	Target population	There is coherence between two policies when policy ‘A’ and ‘B’ have the same objective and use the same instrument, but target different populations.
Between policy domains	Objectives	There is coherence between two policy domains when the objectives of two different policy domains correspond or, at least, the achievement of the objectives of the first does not affect the achievement of the objectives of the second.
	Implementation and outcomes	There is horizontal coherence of policy domains when the implementation of policies within the first domain do not prevent policies in the second domain from achieving their objectives. There is horizontal coherence of policy domains when the policy domain of one level of government does not affect those of another level of government.

2.2 Urban environmental governance in Latin America

Some of the challenges and shortcomings of environmental governance of peri-urban spaces have been observed and analysed in the debates that surround urban and peri-urban environmental governance in Latin America. Winchester (2006) and Navarrete-Peñuela (2017), for example, have argued for increased policy coherence as a priority for sustainable development in Latin American cities.

³ They, in turn, build on Nilsson et al. (2012).

Navarrete-Peñuela (2017), more specifically, has called for participatory governance models to more effectively address urban sustainability challenges. However, while civil participation is somewhat widespread in Latin American cities (CEPAL, 1998; Angotti and Irazábal, 2017), its outcomes have not always been convincing (e.g., Whittingham, 2006; Cielo and Antequera Durán, 2012; Koch and Sanchez Steiner, 2017), although a few successful experiences do exist in Colombia (Velasquez, 1998; Motta Vargas et al., 2016).

Overall, Sandia Rondón (2009)—paralleling the arguments of Allen (2003) and Simon (2008)—has articulated that some of the most important barriers for Latin American cities to achieve sustainability is the non-existence or inadequate implementation of territorial planning, weak local public administrations, deficiencies in public management, clientelism and patronage, and low civil participation. Indeed, a study on governance in medium size cities by the United Nations' *Comisión Económica para América Latina y el Caribe* (CEPAL, 1998), had reached similar conclusions. Across Latin America, the UN report suggested that medium size cities suffer a lack of technical capacity to address complex development problems and have a high dependency of local authorities on party politics and patronage which undermine continuity and make it more difficult to translate plans and programs into concrete initiatives. In addition, given the lack of coordination across government departments, there is a strong preference for short term and often non-planned interventions to achieve immediate effects and maximise political capital at the same time there is typically a concentration of power within the office of the mayor, a drive to the privatization of public goods, including land, and an overall lack of transparency in government. Finally, others have highlighted the connection between strong inequality and poor governance outcomes in Latin America. For example, Sampson (2017) argues that the high social inequality that is observed in most Latin American cities harms the capacity to act on environmental issues given that in more unequal cities, there is more cumulative adversity and less collective efficacy in creating the conditions for more sustainable futures.

2.3 Urban and peri-urban environmental governance in Colombia

Urban and peri-urban environmental governance in Colombia generally faces many of the challenges outlined above. Nevertheless, two issues have been especially prominent in this literature, namely the presence of incoherent sectorial governance policies—and the problems that result from this—and the significant role of informal governance strategies based on patronage and clientelism.

Carrizosa Umaña (2008) has stressed how the contradictions between environmental management and a neoliberal political economy increased in the 2000s as national Government adopted an extractive model of development as one of the five so-called 'locomotives of development'⁴. Various economic and political actors have exploited these contradictions to pursue relatively easy personal enrichment through the exploitation of natural capital for rapid and sizeable economic returns, which has continued to contrast with the simultaneous activities of those authorities and actors responsible for the conservation of ecological landscapes. For example, the many contradictions between these four forces were analysed by Cárdenas and Rodríguez (2013), whereby agriculture, mining and extraction, housing and innovation and infrastructure were shown to likely clash in many respects, not least with the contrasting objectives of economic development and adaptation to climate change (Feola et al., 2015).

Andrade Medina and Bermúdez Cárdenas make a similar point with respect to the urban context by arguing that "[t]he lack of common objectives between urban development policies, land use planning, urban environment, mobility, among others, and the persistence of partial and centralist approaches has been the common denominator in the history of the country" (Andrade Medina and Bermúdez Cárdenas, 2010: 72; translated from the Spanish). Examples of cases in which conflicting or incoherent policies have had negative effects on urban and peri-urban spaces have shown how the goal of attracting foreign investment clashed with environmental management of micro-mining (Siegel, 2013) and with a policy for supporting peri-urban agriculture (Carvajal Sánchez, 2012). Furthermore, Polanco (2010) has

⁴ The National Development Plan 2010-2014, approved by the government of president Juan Manuel Santos, identified five *locomotoras* (locomotives) of development, i.e. five pillars of the government's strategy for the development of the country. These pillars were: mining (*locomotora minero-energetica*), agriculture (*locomotora agricola*), infrastructure (*locomotora infraestructura*), housing (*locomotora vivienda*), and innovation (*locomotora innovación*).

analysed the direct conflicts between the policy goals of economic development and the ecological preservation of high mountain *páramo* ecosystems in peri-urban Medellín. In that case, the vision of maintaining a perennial—hence permanent and stable—ecosystem could not be negotiated in light of the desire for the economic development through agricultural exploitation and expansion.

With respect to governance systems, although the goal of sustainable development is not a formal requirement of the municipal POT (Arias, 2010), it is important to note that Law 388 (1997)⁵ has been associated to some extent with the notion of sustainability. Yet, such associations have varied, moving from implicit practices that have mitigated socio-economic development in favour of the environment, to the explicit conception of POTs as forms of sustainable development (Arias, 2010; see also Varela, 2015). Civil society participation is a legal requirement for POT, and thus, decentralization has resulted in the activation of participatory initiatives to foster civic involvement in urban governance for sustainable development, some of which was also stimulated by global initiatives such as Local Agenda 21 (Velasquez, 1998; Whittingham, 2006; Motta Vargas et al., 2016). However, the efficacy of these participatory processes has been questioned. The influence over decision- and policy-making in urban and peri-urban spaces often occurs through informal clientelism more than through formal participatory processes, the latter sometimes only a cover for vested interest and decision-making (Polanco, 2010; Koch and Sanchez Steiner, 2017). This is problematic because lobbying is being institutionalized (e.g., Ocampo, 2014) as a norm of bureaucratic politics that excludes less powerful actors from taking part in more sustainable and just urban governance.

3. Methodology

3.1 Data

Data for this research were collected through 38 face to face semi-structured key-informant interviews between 2017 and 2018. Interviews were conducted in Spanish, which was the participants' mother tongue. Key informants comprised active civil society members (social, cultural and/or environmental non-governmental organizations, journalists), public servants at local authorities and members of the construction, education (universities, social enterprises) and farming sectors (self-provisioning farmers, commercial farmers, leaders of farmer organizations, retailers). The interviewees were selected via purposive sampling, with the support of the local network of two of the authors of this paper (NAMES TO BE ADDED AFTER PEER REVIEW), and with the aim to represent a diverse range of professional backgrounds and roles.

The interviews were structured in four sections which focussed on the following themes: agriculture, food sovereignty and sustainable development in Sogamoso; the peace agreement and the expected impact of outlined rural development reforms on Sogamoso; governance of agriculture in the city's peri-urban spaces; envisioned policy directions and possibilities to support and expand the benefits of peri-urban agriculture. The interviews were semi-structured, and allowed for deviations and the exploration of other related themes, among which those of land conflicts and land appropriation emerged in all the interviews. Interviews were recorded with the interviewees' informed consent, and transcribed for analysis. The interview transcripts were content-coded by using a combination of pre-set and emergent codes.

3.2 Case study: Sogamoso, Colombia

The city of Sogamoso (5°42'51.6" N, 72°56'2.08" W) is the capital of the Province of Sugamuxi, in the Department of Boyacá, Colombia. It is situated on the Oriental Andean Cordillera at ca. 2600 msl, while the municipal area ranges from ca. 2500 to 4000 msl. Sogamoso is located at about 70 km from the departmental capital of Tunja, and 210 km from the national capital of Bogotá (section 1 of the Electronic Supplementary Materials).

⁵ This law also introduced territorial planning at the municipal level for the first time.

The municipal area of Sogamoso is characterized by two contrasting landscapes, the valley, where the urban centre is located, and the mountain, which is significantly less intensely populated and defined by the dominant *páramo* ecosystem. Local soils are mostly fertile, but also rich in coal, phosphorus, clay and sands (Alcaldía de Sogamoso 2013; 2016).

Sogamoso is a small size city of ca. 112000 inhabitants. The national statistical office projects a depopulation of this city of about 3% between 2015 and 2019, with a net increase of the urban centre (2%) and a net decrease of the rest of the municipality (-27%) (DANE, 2005a). These demographic changes, which involve a substantial migration from the rural to the urban and peri-urban areas, are the result of the socio-economic decline of the rural areas, where the multidimensional poverty index measures almost three times higher than in the urban area of Sogamoso (61.6% versus 24,5% on 2013 data; Departamento Nacional de Planeación, cited in Alcaldía de Sogamoso, 2016). Agriculture, which is the dominant activity in rural areas, is mostly at small or micro-scale and has been declining in importance for the local economy in the recent decades (section 3 of Electronic Supplementary Materials).

The city of Sogamoso is one of the least densely populated cities in the region with at least 100000 inhabitants of the country at ca. 4748 inhabitants per square kilometre (Departamento Nacional de Planeación, 2016)⁶. Nevertheless, a housing deficit of about 4000 units has been registered (Departamento Nacional de Planeación, 2016), which is characterized as a quantitative or qualitative deficit for ca 2300 and 1700 units, respectively (Alcaldía de Sogamoso, 2016). In the year 2017 alone the Municipality of Sogamoso approved 427 residential construction licenses (Cámara de Comercio de Sogamoso, 2017).

The city's economy is mostly based on agriculture, industry, mining, and trade and services. Industry has developed since the 1950s in connection with the mining sector and the exploitation of coal, clay, phosphorus, turf and sands for the production and elaboration of steel, iron, concrete and bricks, the latter activity pursued by small scale traditional businesses (sections 2 and 3 of the Electronic Supplementary Materials). This industrial sector has generated income and employment, but also contributed to air pollution, making Sogamoso one of the Colombian cities with the highest air pollution levels (Alcaldía de Sogamoso, 2016).

Due to its location on the main transportation routes between the Oriental plains of the country (Llanos Orientales) and the Andean region, Sogamoso has also been a sizeable trade centre. However, most of the trade sector in the city is currently based on microenterprises of less than 10 employees (DANE, 2005b), and the informal economy. While the agriculture sector has been in decline, the industrial sector has also downsized significantly with employment in some of the largest steelworks decreasing from the thousands to the hundreds. Meanwhile, 34% of the municipal territory is situated in an area where mining licenses have been granted. Mining is an expanding sector in Sogamoso (section 3 of the Electronic Supplementary Materials), with coal accounting in the year 2015 for ca 73,7% of the production in tons, followed by phosphorus rocks (ca 19,4%), clay (ca 5,5%), sands (ca 1,2%) and turf (ca 0,2%) (Agencia Nacional de Minas, cited in Alcaldía de Sogamoso, 2016). In the year 2012 there were 360 mines (section 2 of the Electronic Supplementary Materials), but there is a high number of illegal mines. Illegality of mining operations is related to long processing times for the authorization of licenses, and to the lack of social security, health and safety, and adequate environmental management measures (Alcaldía de Sogamoso, 2016). The area under environmental conservation, where mining is not allowed, has also expanded under recent national legislation for the protection of *páramo* ecosystems (more on this below).

Amidst an uncertain economic context, the municipal government has sought to position Sogamoso as a regional service hub. This vision includes the increase of the urban area of Sogamoso, the diversification of the economy (e.g., through tourism) alongside the maintenance of the mining and industrial sectors, and the dislocation of agricultural production at the regional, rather than local level (interview 24, planner).

⁶ The density of 3227 inhabitants per squared kilometre is reported in Alcaldía de Sogamoso (2016).

4. Land conflicts in Sogamoso: an assemblage of urban expansionism, conservation, mining and agriculture

4.1. Land conflicts and related processes of land appropriation

Our analysis has revealed three main occurrences of land conflict in the peri-urban spaces of Sogamoso, namely those between agriculture and urban expansion, mining and ecosystem conservation. Each set of conflicts is associated with a specific set of land grab processes and problematic governance relationships that act as enabling factors of those processes.

In this section, we outline each of these conflicts in turn. In the following section, we then examine the enabling function of governance problematics in more detail. Tables 2, 3 and 4 provide an overview of both the processes characterizing the three land use conflicts, and of the enabling factors for each of those conflicts.

Urban expansion and agriculture the South and West parts of the city. The expansion of the city's urban areas into the peri-urban spaces of the south and west of Sogamoso has largely occurred at the expense of agriculture. The latest POT, approved in 2016, formalized the expansion of the city into areas of unauthorized residential developments—in areas formerly designated as 'rural'—but also responded to local pressures to increase land value and allow further construction (section 4 of the Electronic Supplementary Materials). The new POT also aimed to respond to significant numbers of legal disputes of land use allocations, as well as social conflicts that arose from residential uses in non-residential designated areas at the urban fringe (Alcaldía de Sogamoso, 2013, 2016). More generally, '*locomotora vivienda*' made urban development one of the key axes of national investment for the period of 2014 to 2018, thus legitimizing urban expansionism on a national scale.

As a consequence, areas previously designated as mixed rural-urban were designated for urban development in 2016 in Sogamoso (section 4 of the Electronic Supplementary Material). This did not necessarily reflect actual land uses, given that most of the areas for urban expansion are still occupied by rural activities such as farming, but rather involved the aspirations of planners, builders and private individuals to expand the urban area for urban development: "[...] *we incorporated 745 hectares⁷ of urban expansion land and urban land to give dynamism to the territory*" (interview 25, city councillor). Developers have actively engaged in influencing the urban zoning process and also resorted to legal disputes to expand urban zoning through the POT in some areas in the southern peri-urban fringe of Sogamoso (interview 13, planner).

While peasant and smallholding agriculture in the region has faced a crisis in the last two decades due to low productivity, competition from national and international markets, outmigration of younger generations, and lack of government support (see e.g. Feola, 2017), various forms of viable agriculture are still practiced in these peri-urban spaces. For example, besides the commercial farms that operate within the urban perimeter, the Municipality of Sogamoso registered over 630 households that engage in food self-production (Alcaldía de Sogamoso, 2016). Given the highly fertile soil in the peri-urban fringe, many household and collective urban gardens, as well as commercial and subsistence farms devoted to livestock and crop farming are present in and around the city in the many 'undeveloped' lots between residential developments:

"[...] in these sectors [...] there is big conflict in my view, because we can say that in those sectors there have been residential areas for a long time, but simultaneously people's livelihood was located there, either based on agriculture or mining [...] the same happened towards the southern sector. There are a lot of constructions already with utilities and absolutely everything, but since the previous POT nobody is [supposedly] allowed to build there; they were areas of agricultural expansion then there is that conflict" (interview 22, local development officer).

Urban expansion puts pressure on the practice of agriculture in peri-urban space in Sogamoso. It contributes to a fragmentation of the environmental, productive and social fabric, as noted by local observers (e.g., interview 7, geologist). For example, a key informant sadly noted that:

⁷ This area correspond to ca 19,6% of the total municipal area of Sogamoso.

“lots of people enter [this territory] and buy land [...] There are many foreigners here now [...]. This has generated strong cultural change. [...] [The peasants] ended up as servers of foreigners and wealthy people from Bogotá and Medellín who came here to buy land [for urban development]” (interview 18, anthropologist).

Other key informants also nostalgically lamented the cultural loss associated with the disappearance of agriculture in the areas around the city, which includes the loss of traditional gastronomy, knowledge and skills, autonomy, and organically produced, healthy diets (interview 7, geologist; interview 8, member of cultural organization; interview 21, university teacher; interview 33, agronomist; interviewees 36 and 40, sellers at local market):

“we have forgotten how to sow a plant” (interview 17, journalist).

“our grandfathers produced and maintained themselves [...] that is, they would consume what they produced. Then the industrial era arrived and we became consumers and stopped producing, and we are paying [for] that” (interview 2, education entrepreneur).

Other key informants lamented the negative environmental consequences of urbanization (e.g., interview 2, social entrepreneur; interview 23, local development officer), the loss of fertile soil to residential developments (e.g., interview 1, member of trekking group; interview 5, architect), and infrastructural inadequacies (interview 3, architect; interview 5, architect).

Development is largely operated by local and regional companies that target the middle and upper middle classes wishing to move out of the city centre to enjoy a less congested and ‘greener’ environment in relatively high standard housing. These residential developments are very often gated communities of family homes or apartments (section 5 of the Electronic Supplementary Materials). Urban expansionism is also promoted by individuals, either local or from larger Colombian cities—often with family roots in Sogamoso—who build family homes not for sale, but for themselves as a first or, often second home (interview no 13, planner; interview no. 14, farmer). This latter driver of urban expansion was not seen as problematic by all those in the study (e.g. interview 12, artisan and gardener; interview 14, farmer). Both developers and individual residents use informal channels or the formal participatory process that is part of the elaboration of the POT to influence land designation. It is not unusual that younger generations of former farming families lobby or attempt to influence the decision-making process in order to generate economic gains (more on this in section 4.2.2).

The process of acquisition of agricultural land for residential development is legal, but it involves economic dynamics that work against the less wealthy land owners. Specifically, a necessary condition for the development of land is that it is designated as either ‘urban’ or as land ‘suitable’ for urban expansion in the POT. The taxes (*impuesto predial*) associated with ownership of land parcels designated as urban or suitable for urban expansion are substantially higher than those of land designated as rural, especially if they are not actually developed (Consejo Municipal de Sogamoso, 2016). What this often means is that any land designated as urban or fit for urban expansion for those not interested or unwilling to develop it cannot afford to pay the higher tax rates which come with these designations. As a result, the less well-off living in peri-urban spaces are more often than not forced to sell their land against their will and at relatively low prices to unscrupulous investors or more wealthy buyers who are aware of the bind the less wealthy are in because of the processes of land valuation, designation and taxation:

“through this law [...] they force the common citizen: either he sells or produces. [...] he is forced into a corner [...] a friend here told me [...] this plot of land here; they own this plot of land and live there. But according to the POT [...] as the plot is quite large [...] one is allowed to build five floor housing, or up to seven floors. But they cannot do this because they do not have the resources. They are not allowed to build a house of just one or 2 floors. [...] And because of the increased value of this plot [which results from its new denomination for ‘urban’ development], if one cannot pay for it, they have to give it away or sell it to someone who has the economic power to buy it. They would buy it for a really cheap price. [If they do not sell it] perhaps it lasts two or three years before it is expropriated anyway [...] by the Municipality,

because they [cannot afford to pay] the raised property taxes on this land” (interview 33, agronomists).

Table 2. Overview of the land appropriation process and enabling factors of land conflicts between urban expansion and agriculture in the peri-urban space of Sogamoso.

Land appropriation process	Urban designation results in an increase in land taxes, which forces less wealthy land owners to sell their land.
Enabling factors (governance problematics)	<ul style="list-style-type: none"> • Horizontal (municipal) policy incoherence: lack of long term, coordinated planning across domains (e.g., agriculture, tourism, nutrition and health, mining) in mixed peri-urban spaces. • Poor technical capacity → lack of shared base for decision-making. • Urban development imaginary. • Institutionalized clientelism → uneven access to the decision-making process. • Poor participatory processes and culture.

Conservation and agriculture (East). The eastern fringe of the city of Sogamoso has traditionally been devoted to smallholding and peasant agriculture. Despite the decline of this sector in the region (Alcaldía de Sogamoso, 2016; Feola, 2017; section 3 of the Electronic Supplementary Materials), peasant and farming populations are still significant and provide important supplies of food in Sogamoso and across the wider region of Boyacá, including Bogotá (interview 19, food market manager; interview 34 food store manager; interviews 36 and 38, sellers at local food market). Most of this part of the municipality is in areas characterized by the presence of the *páramo* ecosystem: a type of high-mountain ecology that is present in various regions of Colombia and is not only highly diverse, but critical to the natural water system that provides freshwater to most large cities in the country (Instituto de Investigación de Recursos Biológicos Alexander von Humboldt, 2007). In an effort to protect this fragile and vital ecosystem, commonly called the ‘water factory’ (*fabrica de agua*), in recent years the national government has undertaken various initiatives with the support of research institutes such as the Instituto de Investigación de Recursos Biológicos Alexander von Humboldt (Humboldt Institute). Based on a series of scientific studies, the Ministry of Environment and Sustainable Development has issued a number of Directives that officially designate the landscape borders of all the *páramos* in the country and regulate the types of human activities allowed in these conservation areas.

A recent Directive (number 1771 of 2016) delimits and regulates the *páramo* of Tota-Bijagual-Mamapacha, part of which falls within the limits of the municipality of Sogamoso. The lower border (defined at 3000 masl for this specific *páramo*) of the designated conservation areas is commonly known as the *Línea Humboldt* (Humboldt Line). The Humboldt Line is not only defined on the basis of ecological parameters, but also considers the characteristics of human occupation at local and regional levels. The directive does not forbid occupation of *páramo* land, but significantly restricts the range of productive activities and related practices, including mining and agriculture, which are allowed in the *páramo*. The Directive is complemented by more detailed management plans which fall within the responsibility of three relevant regional environmental agencies (*Corporación Autónoma Regional de Boyacá, Corporación Autónoma Regional de Chivor, Corporación Autónoma Regional de Orinoquia*), as this *páramo* falls across three distinct administrative regions. The implementation of the Directive must include participation of the communities that live in the designated *páramo* areas.

Yet, according to many, this Directive essentially condemns local peasants to mere subsistence livelihoods, further restricts their already limited economic and livelihood options (e.g. complementary tourism activities) and ultimately will force more peasant to out-migrate to the city (interview 13, planner; El Espectador, 2017).

“We knew that something was being done with the páramos, but we only found out because suddenly a decree, a law, came out. So what we did was to download it from the internet, and look at all the new restrictions that there were: that crops cannot be cultivated, that livestock cannot be raised, and that agricultural activities of any kind cannot be carried out. Then we

ask ourselves: 'What are we doing here?'” (leader of peasant movement, cited in El Espectador, 2017).

“To say that we can stay here [in the páramo], but without being allowed to conduct any productive activities, means that we are being displaced” (peasant, cited in El Espectador, 2017).

This Directive has been received with serious concerns by mayors of municipalities that lie largely above the *Línea Humboldt*, and whose economy risks being jeopardized by this policy as discussed on national mass media outlets and other media (*El Tiempo*, 2017; for Sogamoso see: *El Espectador*, 2017, and *Trochando Sin Fronteras*, 2018). Peasants in Sogamoso’s peri-urban fringe, and elsewhere, have also been very seriously concerned and have perceived the Directive as yet another attempt in a long history of dispossession:

“I do not mind confronting any legal entity to enforce rights [...] laws like 1771 [...] is based on the protection of the environment, but [the minister] does not realize that what he is doing is to promote inequality and the uprooting of [...] small peasant producers” (interview 11, leader of farmer association).

“We are in a fight between farmers and environmentalists, through national laws, and therefore that's where we're heading: we promote the environment and the conservation of the páramos [...] but [...] where they have grown potato, which is [a] traditional [crop]; they're going to force us out [of these áreas] with that Humboldt law” (interview 25, city councilor).

The Directive also calls on the regional environment agencies to establish mechanisms for the acquisition of land or payment of ecosystem services, the latter of which may also imply the de facto, formal dispossession of land from the peasant population. However, it is likely that the delimitation of the *páramo* has effectively facilitated the devaluation of the land above the Humboldt Line. Furthermore, the problem is compounded by the lack of formal, i.e. legal, title to the land, whereby in this and other regions of Colombia, land has been traditionally inherited without the stipulation of formal titles⁸. When farmers do not possess land titles, to work a plot of land is often the means to prove ownership of that land. Therefore, the fear of peasants is that to leave land unoccupied for ecological reasons may lead to its dispossession. Peasants fear that the regulation and limitation of agricultural activity in the *páramo* may in fact only be a way to free up the land for tourism, scientific study and mining (*El Espectador*, 2017):

“they keep us trapped; we are kidnapped; they are taking the páramo away from us. They are exploiting [our] water resources; they are not really protecting the páramo, they [are freeing it up to] support mining and the multinationals” (interview 11, leader of farmer association).

Tensions already exist between local peasant communities and recreational tourists, for example in the *páramo* of Siscunsi, where peasants have seen their access to land restricted for conservation purposes, but restrictions have not been equally applied to tourists, whose presence in this *páramo* not only signals the differential enforcement of conservation measures, but also causes environmental impacts to the local water system, which directly affects those peasants.

In the absence of strong enforcement of the Directive and given such existing tensions between local peasant communities and recreational tourists (Periódico Enterese, 2018)—in addition to the important evidence of collusion across Colombia between international oil and mining companies and local governments to circumvent conservation regulations (Göbel et al., 2014)—these fears are not only warranted but clearly evident in peasant communities these peri-urban landscapes of Sogamoso. In essence, the Humboldt Line configures a strong limitation of the use of land which has the potential to be keenly felt by peasants as forms of restriction that may develop into further, more formal, dispossession as the regional environment agencies define the mechanisms for land acquisition and as mining and tourist industries loom on these areas.

⁸ This is a phenomenon that is commonly called *falsa tradición*. 50% of the land in the region of Boyacá—the area of focus in this paper—is occupied by non-titled inhabitants (Superintendencia de Notariado y Registro, 2018).

Table 3. Overview of the land appropriation process and enabling factors of land conflicts between environmental conservation and agriculture in the peri-urban space of Sogamoso.

Land appropriation process	<i>Páramo</i> designation restricts agricultural land use, which results in the loss of agricultural livelihood, and in the abandonment of land and its possible public acquisition in a context of widespread lack of formal land titles.
Enabling factors (governance problematics)	<ul style="list-style-type: none"> • Vertical (national-municipal) policy incoherence across ecosystem conservation and agriculture domains creates normative uncertainty and sense of vulnerability of farmers affected. • Horizontal (national) policy coherence across the trade, education and rural development domains results in the abandonment of agriculture. • Horizontal (municipal) policy incoherence: lack of long term, coordinated planning across domains (e.g., agriculture, tourism, nutrition and health, mining) in mixed peri-urban spaces. • Poor technical capacity hampers the formation of a shared base for informed decision-making. • Institutionalized clientelism creates uneven access to the decision-making process. • Poor participatory processes and culture.

Mining and agriculture (North-East). On the slopes leading to the higher altitude regions of the municipality, the north-eastern part of the peri-urban landscape of Sogamoso has traditionally been devoted to agriculture. However, given a convergence of a booming construction sector, a growing demand for energy sources and the decline in traditional family farming, agriculture has been supplanted by small-scale coal, lime and clay mining. Most of this mining activity has been conducted informally and through rudimentary methods. In addition, the furnaces for the production of bricks from the extracted clay are relatively simple and recognized as sources of air pollution; these have been targeted by the Regional Environment Agency in order to introduce filters and less polluting furnaces (interview 4, miner; interview 13, planner).

Some households are employed in agriculture and others in mining, the latter of which often retain some livestock and productive plot of land for subsistence crop and vegetable production. However, these two land uses have begun to develop a number of areas of conflict:

"[...] let's say that in these areas there is a conflict in this sense: one has to coexist with different productive activities, with different economic activities that take place there; for example ... the issue of mining, the quarries that are located there in the north-easter sector, where there is an important population that depends on this activity; and therefore there is not only a territorial, but a social conflict, because there we have for example environmental issues [caused by mining]" (interview no 22, local development officer).

Mining activities have had important impacts on water and soil quality in the area, with serious effects on farming. These impacts have been reported, among others, by the Municipality (Alcaldía de Sogamoso, 2013), and by local farmers:

"Around 20 years ago, one sowed; it was beautiful because you did not need any fertilizers; [...] maize, potato; what a beauty; it was a blessing. One would feel happy just by watching such a beautiful crop. But later, no; the soils do not function anymore. I do not know if it may be because of so much pollution or because of the mines, because they take water from the wells [...], they take water and the land becomes sterile; that's the end; it makes me sad" (interview 27, farmer).

"Unfortunately, all the springs have dried up, the taps, everything has dried up [...] mining has harmed us a lot" (interview 16, farmer).

"Agriculture is very important to us, but [...] the soil had degraded much, very much because of mining. The exploitation of coal, the bad exploitation of coal has dried the water [sources]. A few years ago [this] was agricultural soil, but mining dried up all the water [...]. The eucalyptus that is required to support the mining operations has also affected the soil" (interview 12, artisan and gardener).

Citing a report of the regional environment agency *Corporación Autónoma Regional de Boyacá*, the Municipality's Development Plan states that: *"The extraction activity, especially coal, is environmentally unsustainable"* (Alcaldía de Sogamoso, 2016:123).

Furthermore:

"[T]he Municipality does not have clear follow-up guidelines on the closing and abandonment [of disused mines], to ensure compliance ecological and landscape restoration plans and the responsible development of mining. [...] environmental management plans are not implemented and all [natural] resources have been affected in the areas of exploitation [...]. Similarly, water, soil, air and households have been affected. Mining in the páramos contaminates the wells" (Alcaldía de Sogamoso, 2016:123).

Land has been acquired by miners at the expenses of farmers in two main ways. First, as in the case of urban expansion to the south and west of the city, acquisition of land is facilitated by the decline of agricultural activity (see Feola, 2017), to which mining contributes through the environmental impact and the competition for labour as peri-urban outmigration occurs. In other words, mining has reduced the arable land available for farming, and agricultural land left unproductive is subsequently either encroached upon or purchased at relatively low prices. Second, the miners in this area have succeeded in organizing a collective voice that has allowed them to obtain a resolution from the Ministry of Mining and Energy⁹ that identifies much of this administrative area as a clay 'mining reserve' (Resolución 478 of 2007). This ministerial resolution has overridden the zoning established in the municipal POT and added greatly to land conflicts, which was lamented by the Municipality as a loss of control on the sustainable planning of its territory (Alcaldía de Sogamoso, 2016). While this was legal in process and outcome, the creation of these mining reserves excluded many key actors such as farmers from the decision-making process. Thus, land dispossession in this case was not a direct and formal process of land regulation and policy intervention but rather one of a more indirect, complex set of processes 'forced' through and by the inequalities of power distributed across the various actors in the peri-urban fringes of Sogamoso.

Table 4. Overview of the land appropriation processes and enabling factors of land conflicts between mining and agriculture in the peri-urban space of Sogamoso.

Land appropriation processes	<ul style="list-style-type: none"> • Mining reserve designation determines the restriction to non-mining uses, with the consequent loss of agricultural livelihood, and forced land abandonment and sell. • Environmental impact of mining reduces the suitability of land for agriculture, which forces land abandonment and sell.
Enabling factors (governance problematics)	<ul style="list-style-type: none"> • Vertical (national-municipal) policy incoherence across mining and agriculture domains creates a normative uncertainty and sense of vulnerability of peasants and farmers (not included in decision-making). • Horizontal (municipal) policy incoherence: lack of long term, coordinated planning across domains (e.g., agriculture, tourism, nutrition and health, mining) in mixed peri-urban spaces. • Poor technical capacity hampers the formation of a shared base for informed decision-making. • Institutionalized clientelism creates uneven access to the decision-making process. • Poor participatory processes and culture.

4.2. Enabling factors of land conflicts in Sogamoso: governance problematics

4.2.1. Policy incoherence across multiple levels

The above-mentioned land conflicts are inscribed in a configuration of incoherent policies, where national and municipal norms clash and are held in tension in terms of both objectives and implementation (Tables 1-4). The most relevant cases of policy incoherence between the national and municipal level are those observed with Directive 1771, which attributes ecosystem conservation purposes to areas designated as 'rural'—therefore suitable for agriculture and designated as 'non-urban'—by the municipal POT. Similarly, Resolution 478 (2007) overrode the municipal POT by legitimizing previously illegal and informal mining activities which were considered of economic and

⁹ This has been done in compliance with article 31 of the National Mining Code (*Código de Minas*).

cultural value. These cases of policy incoherence can be characterized as *vertical*, i.e. between national and municipal government levels, and *horizontal*, i.e. across policy domains, namely ecosystem conservation, mining and agriculture (Table 1).

Policy incoherence creates normative uncertainty, a sense of vulnerability for target populations (El Espectador, 2017; El Tiempo, 2017) and frustration across the operations of municipal authorities. It, therefore, further justifies citizens' and social groups' informal strategies to defend their interests or pursue their own self-defined goals; more on this below. The injustice that results is evident, with peasants, farmers and other marginal citizens losing land, income and access to resources in a peri-urban space that is functionally configured for the more political and financially powerful and better connected collective or individual actors.

Rather, coherence does seem to reign in the set of national trade, education and rural development policies that have contributed to the continuing and accelerating and projected depopulation of the rural areas surrounding Sogamoso (DANE, 2005a) and many other Colombian cities. From around the 2000s, free trade agreements have increased exposure of the agricultural sector to global agri-food market competition (Feola et al. 2015; Casamitjana and Loaiza Usuga, 2016), rural extension services and other support such as credit for peasants and farmers have been cut or privatized (Machado, 2010; Casamitjana and Loaiza Usuga, 2016), and agriculture-related educational programs have been withdrawn or reduced in favour of education towards more 'modern' professions (interview 2, social entrepreneur; interview 17, journalist; interview 23, local development officer, see also Feola, 2017):

These seemingly tangential, yet critical processes represent a 'push factor' in the abandonment of agriculture by younger generations, which, despite the lure of urban life, can be experienced as what many key informants referred to as an 'uprooting' (*desarraigo*) (also see: Feola, 2017). This push factor has combined with the pull power of an expanding construction sector which benefited from both the national development strategy and discourse (*locomotora vivienda*) and formalized and further enabled by the municipal POT. The convergent outcome of these policies, which is clearly observable in the peri-urban spaces of Sogamoso, is the dispossession and 'freeing up' of agricultural land for urban expansion and mining and the growing development of these economic sectors (section 3 of the Electronic Supplementary Materials).

4.2.2 Other governance problematics of peri-urban spaces in Sogamoso

The land conflicts and opportunities for land appropriation described above have also resulted from the problematics inherent in local governance systems and this lack of a coordinated approach to peri-urban spaces (Tables 2-4). Across our research, various key informants noted the distinct lack of coordination amongst municipality departments in terms of both clear objectives and of policy implementation. Departments with responsibility for distinct sectors (e.g. tourism, local development, planning, education, health) tended to show little propensity and ability to work in an integrated manner to develop and implement coherent policies for peri-urban spaces (interview 3, architect; interview 5, architect; interview 32, historian).

Furthermore, many lamented the poor technical capacity, or even intention, to understand peri-urban spaces in Sogamoso. This is reflected, for example, in the lack of detailed, comprehensive and up-to-date information systems that might keep track of what is happening in peri-urban spaces:

"[...] we did not even have indicators. So, how are we going to measure 2% unemployment in the city and where is the baseline? Because the figures provided by the DANE [National Administrative Department of Statistics] are general, not local" (interview 22, local development officer).

"[...] external consultants and supervisors are hired. They stay 8-10 days to collect information from the Mayor's Office, from the Planning Department. And in the Planning Department there are also some issues: for example, the 'expediente municipal', which is the basis [...] it does not exist, it is not updated. Therefore, they take a little information and leave; they go to Bogotá and make a decision that is not appropriate for the territory" (interview 3, architect).

This lack of reliable data deprives those involved—such as public authorities and wider civil society actors—of a sound and common information base from which to formulate decisions and governance pathways as well as tools to challenge these decisions. As a result, the decision-making process is disproportionately informed by powerful interests of planners and developers and their imaginaries of what is right for and *should* be happening in peri-urban spaces. Indeed, Sogamoso's planners and local authorities (i.e. councillors) have developed a shared imaginary of Sogamoso's peri-urban space as a place destined for inevitable urban expansion and growth rather than one that has peri-urban landscapes as more mixed spaces. This discourse has been reinforced by the most recent *Ley de ordenamiento territorial*, which, as highlighted above, more narrowly defines land uses than previous laws. In addition, most planners and developers tend to depict peri-urban spaces as 'empty' and devoid of productive or other valuable activities. These depictions of peri-urban spaces draws on a belief of these spaces as unproductive, marginal, backwards, informalised spaces ready to be built upon and developed:

"There are some cases in which people like to grow crops at least for their consumption [...], but there should be more agricultural production to use the soil more. They are using it for a few sheep, for a cow, and much is abandoned there" (interview 20, journalist)

"[...] we had very good people to work [in agriculture]. Unfortunately [...] for the peasant it was never good [...] for the peasant, in my view, never wanted to grow and remained [stuck]. [...] a very tenacious and unfortunate culture is that of our peasant" (interview 13, planner).

"any plot of land in Sogamoso, anywhere you like, becomes more valuable building houses than growing crops" (interview 28, developer)

"The peripheries of the cities [like] Sogamoso are very ugly; they are cordons of hunger, of misery [...]. [W]hat you have to build is pretty houses, so that at least those pretty houses generate development, generate resources. A farm. This was a farm; all this was a farm. I paid 650, 700 [pesos] of property taxes. Today it is paying more than 6,000.0000 [...] we put the land to work, [...], we sacrificed an area where we there were [only] 10-11 cows; there were not more in the whole farm" (interview 28, developer).

Furthermore, many of our key informants lamented the pursuit of personal interests over the common good among public servants, officials and common citizens:

"[...] they are realizing that there is corruption and that corruption is not only done with the wallet; corruption is [also] to change consultants so that they deliver more favourable reports to the Mayor" (interview 9, architect).

Related to this, clientelism is widespread and essentially institutionalized in Sogamoso as a sort of parallel governance system. Individuals of various social groups such as farmers, miners, professionals, social organizations and developers engage in this strategy to pursue or defend personal interests. Clientelism is practiced through personal contacts with civil servants, city councillors, and other institutional figures within the public administration, and at times through formal institutions such as the *Consejo Municipal de Desarrollo Rural* and the *Juntas de Acción Comunal*¹⁰ (interview 23, local development officer; interview 18, anthropologist).

This issue was compounded by the lack of strategic leadership and the 'short-termism' of the decision-making process (interview 22, local development officer):

"[...] public servants are transient, policies are short-term, there is no long-term vision for society" (interview 5, architect).

¹⁰ *Consejo Municipal de Desarrollo Rural* is a consultative organ composed by the mayor, representatives of the city council, representatives of public bodies involved in rural development actions, and representatives of farmer organizations, rural communities and other interest groups that are present in the municipality. The *Consejo Municipal de Desarrollo Rural* has the function to allow the concertation between local authorities and local communities as regards rural development. Its main function is the coordination and rationalization of actions and resource use for rural development (Law 101 of 1993). The *Junta de Acción Comunal* "a civic, social and community organization of social management, non-profit, of solidary nature, with legal status and own patrimony, voluntarily integrated by the residents of a place that combine efforts and resources to seek an integral and sustainable development with foundation in the exercise of participatory democracy" (Law 743 of 2002).

The lack of strategic leadership, of technical capacity and the widespread role of clientelism are illustrated by the uneven roll out of the participatory process that was part of the elaboration of the POT. Key informants reported on the poor timing of the participatory meetings—they were held after many of the POT decisions had been made—their superficiality and the inadequate level of public participation. Others mentioned more general problems with the lack of an established participatory culture in that they felt that the fora were ‘misused’ by citizens and other social groups to express grievances and request personal favours rather than to collaboratively contribute to discussions of collective problems and contribute to their solution (interview 23, local development officer). As two key actors put it,

"[...] we tried to participate in the participatory process of the POT. [...] we attended [...] but there was nothing to do because they had already moved on to another phase, the legal part. [...] Then there was not really a participatory process, although they say they have evidence to show that there was, [...] but they showed minutes of meetings with 25, 26 people. That really is not representative" (interview 9, architect).

"[...] we are seeing a generational change; the owners are not the elderly, but the four or five [children] who inherited [the land], and it turns out that those four or five [people] decide [...] to build [...] and they begin to battle: "what is the point of leaving so much rural land? Let's change that designation to urban" [...]. And this is the type of things they said in the participatory process [of the POT]" (interview 13, planner).

However, a few interviewees expressed their satisfaction with the participatory process (interview 12, artisan and gardener; interview 33, agronomists), which seemed to work best where citizens were more organized such as in the north-eastern fringe neighbourhoods where miners form relatively well-organized groups.

As a result of the above pitfalls, a number of actors, especially social organizations and some farmers, have developed a deep distrust in the formal governance system and the ability of institutions and citizens to participate for the ‘common good’. Many have consequently disengaged from the participatory process to defend their personal integrity and dignity. Instead, they have exited the formal governance process to instead developed autonomous, grassroots initiatives focused on social and/or sustainable development projects, including the creation of sustainable agriculture and educational programmes (interview 2, social entrepreneur; interview 35, leader of farmer association). As one interviewee stated,

"I can talk to you about people here that somehow instead of following a flag, generated some ideas, but who over time ended up smashed because the system is complicated ... [now] they do it through alternative ways like a foundation [...] to be able to work with dignity" (interview 5, architect).

5. Discussion and conclusion: ordinary land grabbing in peri-urban spaces

This study uncovers the gradual and ordinary processes that characterize social tensions and conflicts over land appropriation in the small city of Sogamoso, Colombia. It shows how land appropriation occurs at the local level in ways that are subtle and quotidian (Ojeda, 2016; Steel et al., 2017; Xu, 2018) and less visible than large-scale or armed land acquisitions, but just as impactful on the ecologies and livelihood of citizens in smaller urban areas. This study also provides evidence in support of the call made by Zoomers (2010) and Zoomers et al. (2017) among others, to focus on peri-urban landscapes, rather than—or in addition to—city centres, as spaces where key urban land grabbing dynamics take place. Yet, this paper also shows that a focus on quotidian and subtle processes, and on a diverse set of actors, may not be sufficient to understand urban land grabbing if the scope of the analysis remains within the realm of urban expansion, infrastructural development and gentrification. Other drivers such as mining and environmental conservation in the case of Sogamoso, may mix with urban expansionism to contribute to land appropriation especially in peri-urban spaces.

In addition, focusing on Sogamoso opens up analysis to land grabbing and the power dynamics embedded in them in Colombia which has thus far mostly focused on grabbing and socio-environmental inequalities in rural spaces as marked specifically by large-scale land acquisitions and violent conflict (Borras et al., 2012; Ojeda, 2012; Ulloa and Coronado, 2016). The understanding of these dynamics—in cities of all size in Colombia—is important in current debates on the integrative notion of ‘territory’ as a lens to inform policies and strategies for social inclusion, sustainability, reconciliation, political and civil culture in the post-conflict era of the country (Göbel et al., 2014; Feola et al., 2015; Ulloa and Coronado, 2016; Valdés, 2017; Feola, 2018).

Importantly, confirming earlier arguments (e.g. Tacoli, 2003; Ros Tonen et al., 2015), this paper has explored and analysed the crucial role of formal, multi-level governance arrangements in determining the outcome of land conflicts, including land grabbing, in urban and peri-urban contexts. Governance politics and their problematics are important factors especially in peri-urban spaces, which are ‘hybrid’ (Pérez Martinez, 2016) and therefore difficult to govern. The emerging literature on urban land grabbing may therefore benefit from integrating evidence and theories on urban and peri-urban governance (e.g., policy coherence, multi-level governance arrangements) beyond a narrowed focus on land governance.

On the one hand, the processes of land acquisition related to the land conflicts described above can be connected to local articulations of national and local policies and their interactions with Sogamoso’s socio-environmental history and, especially, its mixed economic structure and spatial proximity to high mountain *páramo* ecosystems. In Sogamoso, inconsistent, and at times apparently contradictory national and municipal environment and development policies create new and/or amplify already existing local conflicts over land use. In turn, such conflicts exacerbate, rather than mitigate, long standing governance issues, including normative uncertainty and lack of trust among actors to then encourage clientelist coping strategies that create an uneven landscape of winners and losers. Also, in this sense, this study confirms the existence of governance problematics and their social and economic impacts that have affected Latin American and Colombia, as reviewed in earlier sections of this paper.

On the other hand, we have also shown that these strategies may pre-empt disruptive social or political conflict. The weak formal local governance system and the important role of strategies to influence governance processes appear to discourage political confrontation in a context of social fragmentation, weak farmer cooperatives, and assassinations of social leaders, which are among the highest in the continent¹¹. More generally, frustration, fatalism, disillusionment, and little hope in civil and political institutions is widespread (see Feola, 2018 regarding the peace process). Indeed, as proposed by Sampson (2017), we have found that strong inequality can contribute to a fragmentation of the population, which results in lower levels of civil participation in formal representative institutions and opens up more fertile ground for clientelism.

We see this paper making a unique and extensive contribution to ongoing debates on the shifting urban geographies of the cities of the Global South, and the governance of urban land grabbing. In particular, it contributes to theory building on urban land grabbing in at least three ways.

First, while theories of urban land grab have been mostly developed by studying large and capital cities, our findings suggest the need for the further theorization of urban land grabbing through a deeper engagement with medium and small size cities. The case of Sogamoso shows that ordinary and gradual land grabbing in urban and peri-urban spaces is not necessarily driven by large capital investments, but in fact can occur in the face of the *declining* presence of capital; in Sogamoso, this can be seen in the recent decline in its industrial sector. Furthermore, medium and small sized cities are less exposed to global information and mobility flows, and engage to a much lesser extent in global positioning. Thus, for example, while Carvajal Sánchez (2012) observed a similar case of policy incoherence in the governance of peri-urban spaces in Bogotá, in that city incoherence is driven by the attempt of the city to position itself in the context of global economic competition for capital investment. These logics are

¹¹ Between 1 January 2016 and 15 May 2018 385 assassinations of social leaders and human rights defenders have been registered in Colombia and many hundreds more have received intimidations and violent threats (Cumbre Agraria Marcha Patriótica, Indepaz, 2018). Moreover, the memory of the assassination of the peasant leader and candidate to the post of mayor of Sogamoso Manuel Ignacio Torres Navarrete in 2000 is still vivid in Sogamoso.

essentially absent in Sogamoso, and only poorly matched by the municipal government's rather transient strategy to position itself as a regional economic hub.

Second, and in relation to the above point, this paper highlights the need to understand urban land grabbing—in large and small cities alike—as the results of local, place-based processes, which can interact with, but potentially be even be more important than global ones. While urban land grabbing theories have emphasised the connection of local land appropriation to global trends such as gentrification, capital flows, extractivism and the rush for natural resources (Zoomers, 2010; Steel et al., 2017), we suggest that the drivers of land appropriation may have more significant and specific *local* origins. In Sogamoso, for example, the prioritization of the urban over the rural is inscribed in the project of national development and state building—as described by Escobar (1995) and Asher and Ojeda (2009)—in which ‘the urban’ has come to signify civilization and citizenry, as opposed to the uncivilized rural, and its peasant inhabitants, who have traditionally struggled to be recognized as ‘full’ citizens worth political representation and civil rights. The discursive emptying of rural spaces is a strategy that has underpinned developmentalist policies and land expropriation throughout Colombia (Duarte et al., 2015; Cardona et al., 2016; Díaz Moreno, 2016; also see Perez-Martínez, 2004). Similarly, while the conservation of *páramos* in Colombia can partly be considered a national response to global environmental politics, it also fits well in national discourses that represent these ecosystems as ‘water factories’ from which life in Colombian cities depend. As some observers have noted, and as illustrated by the case of Sogamoso, the conservation of these ecosystems can be seen as yet another ‘green pretext’ (Ojeda, 2012; also see Duarte et al., 2015) to deprive rural and peri-urban populations of not only access to water but to also effectively their own land to preserve natural resources for the development of urban populations (J. Diaz, personal communication).

Finally, this study shows that a more diverse range of decidedly multi-scaled mechanisms of land appropriation are at play in peri-urban spaces than is typically considered in current theories of urban land grabbing. While the extant literature has mostly highlighted the role of land speculation in processes of displacement of the relatively wealthy middle classes to the urban fringe (List, 2017; Zoomers et al., 2017), this study has shown that land appropriation also occurs through legislative measures, originating either at municipal or national level, that may restrict land suitability for certain uses, thus activating subtle mechanisms of land appropriation which are usually difficult to oppose. Such legislative measures may well be influenced, and to an extent steered, by local interests (e.g. organized miners, urban developers and citizens with interests in urban development), as well as national discourses and strategies (national development plan, nature conservation). Furthermore, urban land grabbing is driven by processes other than urban expansionism, and consequently involves a more diverse set of actors and decision-makers at multiple governance and spatial levels. In Sogamoso, for instance, socio-ecological configurations that include ecosystems and soil characteristics determine pressure on land for mining and ecosystem conservation in addition to those of urban expansion, and consequently involve miner associations, environmental protection groups, and the national and regional government, among others.

To conclude, this paper reinforces and furthers the argument that to better understand and theorise the ways land grabbing processes are spatially differentiated and articulated in cities across the world, deeper engagements with local, gradual, subtle and more hidden land conflicts, governance regimes and power relations at the scales of the everyday are required (Steel et al., 2017; Xu, 2018). Our findings suggest that the call to unpack processes of urban land grabbing (van Noorloos et al., 2019) needs to be pushed further: we need to theorize urban land grabbing as a result of ordinary, place-based, quotidian dynamics that emerge also from governance problematics, including policy incoherence, and land conflicts, and from the intersection of a more diverse set of drivers, mechanisms and actors than discussed in the extant literature with focus on large urban centres, and on urban expansion, gentrification and infrastructural development. Future research on land grabbing in Colombia can complement the study of land grabbing processes in rural and conflict-ridden regions, and investigate less spectacular urban and peri-urban land grab dynamics in medium and small cities, and in contexts where land appropriation may not occur through armed conflict.

Acknowledgements

The authors give their sincere thanks to the research participants. Earlier versions of this paper have been presented at research seminars and conferences at Utrecht University (Human Geography and Planning brownbag seminar) at the Universidad de Boyacá (joint seminar at the Faculty of Architecture Design and Urbanism and Faculty of Science and Engineering), Universidad de Córdoba (Simposio Internacional de Sostenibilidad Ambiental: Gestión y Dinámica de Ecosistemas), Universidad Pedagógica y Tecnológica de Colombia – Sogamoso (invited lecture, School of Public Accounting). Useful feedback was received on all these occasions. The authors also thank Kei Otsuki and Marjanneke Vijge for their useful comments on an earlier version of this manuscript. This research was funded by the Royal Geographical Society (with IBG) through the Environment and Sustainability Research Grant no. 01/17.

References

- Alcaldía de Sogamoso, 2013. Componente de Clasificación del Suelo, Modelo de Ocupación y Norma. Sogamoso: Colombia.
- Alcaldía de Sogamoso, 2016. Plan de Desarrollo 2016-2019: Sogamoso Incluyente. Sogamoso: Colombia.
- Allen, A., 2003. Environmental planning and management of the peri-urban interface: perspectives on an emerging field. *Environment & Urbanization* 15, 135–148.
- Andrade Medina, P., Bermúdez Cárdenas, D.C., 2010. La sostenibilidad ambiental urbana en Colombia. *Bitácora Urbano Territorial* 17, 73–93.
- Arias Arbelaez, F.A., Vargas, G.M., 2010. Instituciones, gobernanza y sustentabilidad en la política colombiana de ordenamiento territorial municipal. *Sociedad y Economía* 19, 279–304.
- Asher, K., Ojeda, D., 2009. Producing nature and making the state: Ordenamiento territorial in the Pacific lowlands of Colombia. *Geoforum* 40, 292–302.
- Becerra, M. R. (Ed). 2008. Gobernabilidad, instituciones y medio ambiente en Colombia. Bogotá: Friedrich Ebert Stiftung and Foro Nacional Ambiental.
- Borras, S.M., Franco, J.C., Gómez, S., Kay, C., Spoor, M., 2012. Land grabbing in Latin America and the Caribbean. *The Journal of Peasant Studies* 39, 845–872.
- Cámara de Comercio de Sogamoso, 2017. Estudio de Percepción Económica de Sogamoso. Sogamoso: Colombia.
- Cárdenas, M., Rodríguez, M. (Eds.). 2013. Desarrollo Económico y adaptación al cambio climático. Bogotá: Frescol and Foro Nacional Ambiental.
- Cardona, C. A., Pinilla, M., Gálvez, A., 2016. ¡A un lado, que viene el progreso! Construcción del proyecto Hidroituango en el cañón del Cauca medio antioqueño, Colombia. In: Ulloa, A., Coronado, S. (Eds.), 2016. Extractivismos y posconflicto en Colombia: retos para la paz territorial. Universidad Nacional de Colombia, Bogotá, pp. 303–330.
- Carrizosa Umaña, J. Prologo. Instituciones y Ambiente. In: Becerra, M. R. (Ed). 2008. Gobernabilidad, instituciones y medio ambiente en Colombia. Bogotá: Friedrich Ebert Stiftung and Foro Nacional Ambiental, pp. 1–64
- Carvajal Sánchez, N.I., 2012. Nuevas dinámicas urbano-rurales en Bogotá y Soacha. *EUTOPÍA* 3, 51–66.
- Cejudo, G.M., Michel, C.L., 2016. Coherencia y políticas públicas: Metas, instrumentos y poblaciones objetivo. *Gestión y Política Pública* XXV, 3–31.
- Cielo, C., Antequera Durán, N., 2012. Ciudad sin frontera: La multilocalidad urbano-rural en Bolivia. *EUTOPÍA* 3, 11–29.
- Ciudades intermedias de América Latina y el Caribe: propuestas para la gestión urbana, 1998. CEPAL, United Nations.
- Cumbre Agraria, Marcha Patriótica, and Indepaz Todos los nombres, todos los rostros: informe de derechos humanos sobre la situación de líderes/as y defensores de los derechos humanos en los territorios, 2018. Bogotá: Cumbre Agraria, Marcha Patriótica, and Indepaz.

- Dávila, J. D. 2009. Being a mayor: Four views from Colombia. *Environment and Urbanization* 20, 37-57.
- Departamento Administrativo Nacional de Estadística (DANE), 2005a. Proyecciones de población municipales por área. DANE, Bogotá.
- Departamento Administrativo Nacional de Estadística (DANE), 2005b. Censo General 2005: Perfil Sogamoso – Boyacá. DANE, Bogotá.
- Departamento Nacional de Planeación, 2016. POT Modernos. Bogotá: Colombia.
- de Zeeuw, H., 2004. The development of Urban Agriculture; some lessons learnt. Presented at the Urban Agriculture, Agro-tourism and City Region Development, Beijing.
- Díaz Moreno, I. 2016. Palma, estado y región en los Llanos colombianos (1960-2015). In: Ulloa, A., Coronado, S. (Eds.), 2016. *Extractivismos y posconflicto en Colombia: retos para la paz territorial*. Universidad Nacional de Colombia, Bogotá, pp. 167-200.
- Duarte-Abadía, B., Boelens, R., Roa-Avendaño, T., 2015. Hydropower, Encroachment and the Re-patterning of Hydrosocial Territory: The Case of Hidrosogamoso in Colombia. *Human Organization* 74, 243–254.
- El Espectador (2017), Plantados en el páramo. 13 May 2017
- El Tiempo (2018), Comunidad cercana al Páramo de Pisba pide detener su delimitación, 17 May 2018.
- Escobar, A., 1995. *Encountering development. The making and unmaking of the Third World*. Princeton University Press.
- Feola, G., 2017. Adaptive institutions? Peasant institutions and natural models facing climatic and economic changes in the Colombian Andes. *Journal of Rural Studies* 49, 117–127.
- Feola, G. 2018. Contra la indiferencia: un llamado para la participación civil en el posconflicto en Colombia. *Revista Ciudad Paz-ando*, 11(1): 51-61.
- Feola, G., Agudelo Vanegas, L.A., Contesse Bamón, B.P., 2015. Colombian agriculture under multiple exposures: a review and research agenda. *Climate and Development* 7, 278–292.
- Gant, R.L., Robinson, G.M., Fazal, S., 2011. Land-use change in the ‘edgelands’: Policies and pressures in London’s rural–urban fringe. *Land Use Policy* 28, 266–279.
- Geneletti, D., La Rosa, D., Spyra, M., Cortinovis, C., 2017. A review of approaches and challenges for sustainable planning in urban peripheries. *Landscape and Urban Planning* 165, 231–243.
- Göbel, B., Góngora-Mera, M., Ulloa, A. (Eds.), 2014. *Desigualdades socioambientales en América Latina*. Universidad Nacional de Colombia, Bogotá.
- Grajales, J., 2011. The rifle and the title: paramilitary violence, land grab and land control in Colombia. *The Journal of Peasant Studies* 38, 771–792.
- Guereña, A., Burgos, S., 2016. *Desterrados: Tierra, poder y desigualdad en América Latina*. Oxford: OXFAM.
- Guereña, A., Burgos, S., 2017. Radiografía de la desigualdad: Lo que nos dice el último censo agropecuario sobre la distribución de la tierra en Colombia. Oxfam International, Oxford.
- Instituto de Investigación de Recursos Biológicos Alexander von Humboldt. 2007. *Atlas 2007 de los páramos de Colombia*. Bogotá: Instituto de Investigación de Recursos Biológicos Alexander von Humboldt.
- Irazábal, C., and Angotti, T., 2017. Planning Latin American Cities: Housing and Citizenship. *Latin American Perspectives* 44(3): 4-8.
- Koch, F., Sanchez Steiner, L. M., 2017. Participation without Power: The Failure of Citizen Participation in Barranquilla. *Latin American Perspectives*, 44(2), 168-183.
- LeGrand, C.C., van Isschot, L., Riaño-Alcalá, P., 2017. Land, justice, and memory: challenges for peace in Colombia. *Canadian Journal of Latin American and Caribbean Studies / Revue canadienne des études latino-américaines et caraïbes* 42, 259–276.
- Lerner, A.M., Eakin, H., 2011. An obsolete dichotomy? Rethinking the rural-urban interface in terms of food security and production in the global south: An obsolete dichotomy? *The Geographical Journal* 177, 311–320.
- Lerner, A.M., Eakin, H., Sweeney, S., 2013. Understanding peri-urban maize production through an examination of household livelihoods in the Toluca Metropolitan Area, Mexico. *Journal of Rural Studies* 30, 52–63.

- List, N.C., 2017. Land Grabs in Urban Frontiers: Producing Inequality in Senegal's Dakar Region (Doctoral Dissertation). University of California, Berkeley.
- Machado, A., 2010. Lessons on rural development, challenges and approaches. *Agronomia Colombiana* 28, 437–443.
- Madaleno, I.M., Gurovich, A., 2004. "Urban versus rural" no longer matches reality: an early public agro-residential development in periurban Santiago, Chile. *Cities* 21, 513–526.
- Marín-Usuga, M.R., Arnalte-Alegre, E., Casamitjana Causa, M., Loaiza-Usuga, J.C., 2016. Policies of agricultural modernization and rural development in Colombia (1996-2008). *Revista EIA* 13, 99–117.
- Marshall, F., Waldman, L., MacGregor, H., Mehta, L., Randhawa, P., 2009. On the Edge of Sustainability: Perspectives on Peri-urban Dynamics (STEPS Working Paper 35). STEPS CENTRE, Brighton.
- Mehta, L., Karpouzoglou, T., 2015. Limits of policy and planning in peri-urban waterscapes: The case of Ghaziabad, Delhi, India. *Habitat International* 48, 159–168.
- Mendez, M., Ramirez, L., Alzate, A., 2005. La práctica de la agricultura urbana como expresión de emergencia de nuevas ruralidades: reflexiones en torno a la evidencia empírica. *Cuadernos de Desarrollo Rural* 51–70.
- Motta Vargas, R., Ramírez Moreno, N.R., 2016. La gobernanza del agua y la participación ciudadana en Bogotá. *Revista Republicana* 21, 159–177.
- Nannetti, E. G., Leyva, P., 2015. La gestión ambiental en Colombia, 1994-2014: ¿un esfuerzo insostenible? Bogotá: Friedrich-Eder Stiftung and Foro Nacional Ambiental.
- Navarrete-Peñuela, M., 2017. Desarrollo urbana sustentable: el gran desafío para América Latina y los preparativos para Hábitat III. *Luna Azul* 123–149.
- Nilsson, M., Zamparutti, T., Petersen, J.E., Nykvist, B., Rudberg, P., McGuinn, J., 2012. Understanding Policy Coherence: Analytical Framework and Examples of Sector-Environment Policy Interactions in the EU: Understanding Policy Coherence. *Environmental Policy and Governance* 22, 395–423.
- Ocampo, G.I., 2014. *Poderes regionales, clientelismo y Estado. Etnografía del poder y la política en Córdoba, Colombia*. Bogotá: Siglo del Hombre Editores.
- Ojeda, D., 2012. Green pretexts: Ecotourism, neoliberal conservation and land grabbing in Tayrona National Natural Park, Colombia. *Journal of Peasant Studies* 39, 357–375.
- Ojeda, D., 2016. Los paisajes del despojo: propuestas para un análisis desde las reconfiguraciones socioespaciales. *Revista Colombiana de Antropología* 52, 19–43.
- Pérez Martínez, M.E., 2004. La conformación territorial en Colombia: entre el conflicto, el desarrollo y el destierro. *Cuadernos de Desarrollo Rural* 51, 61–90.
- Pérez Martínez, M.E., 2016. Las territorialidades urbano rurales contemporáneas: Un debate epistémico y metodológico para su abordaje. *Bitácora Urbano Territorial* 26, 103.
- Periodico Enterese (2018), Piden más control en el páramo de Siscunsi. 5 August 2018, page 20.
- Polanco, J., 2010. Dificultades de la gobernanza del desarrollo económico en el entorno regional de Medellín. *Lecturas de Economía* 73, 215–242.
- Ponce de Leon, E., Galan, F.A., Uribe, E. 1998. *Gestión ambiental nacional y urbana*. Bogotá: Foro Nacional Ambiental.
- Richani, N., 2012. The agrarian rentier political economy. Land Concentration and Food Insecurity in Colombia. *Latin American Research Review* 47, 51–78.
- Ros-Tonen, M., Pouw, N., Bavinck, M., 2015. Governing Beyond Cities: The Urban-Rural Interface, in: Gupta, J., Pfeffer, K., Verrest, H., Ros-Tonen, M. (Eds.), *Geographies of Urban Governance*. Springer International Publishing, Cham, pp. 85–105.
- Sampson, R.J., 2017. Urban sustainability in an age of enduring inequalities: Advancing theory and econometrics for the 21st-century city. *PNAS* 114, 8957–8962.
- Sandia Rondón, L.A., 2009. El ambiente y el desarrollo sustentable en la ciudad latinoamericana. *Investigación y Desarrollo* 17, 268–287.

- Scott, A.J., Carter, C., Reed, M.R., Larkham, P., Adams, D., Morton, N., Waters, R., Collier, D., Crean, C., Curzon, R., Forster, R., Gibbs, P., Grayson, N., Hardman, M., Hearle, A., Jarvis, D., Kennet, M., Leach, K., Middleton, M., Schiessel, N., Stonyer, B., Coles, R., 2013. Disintegrated development at the rural–urban fringe: Re-connecting spatial planning theory and practice. *Progress in Planning* 83, 1–52.
- Siegel, S., 2013. Community without solidarity: mercury pollution from small-scale mining and Colombia’s crisis of authority. *Community Development Journal* 48, 451–465.
- Simon, D., 2008. Urban Environments: Issues on the Peri-Urban Fringe. *Annual Review of Environment and Resources* 33, 167–185.
- Steel, G., van Noorloos, F., Klaufus, C., 2017. The urban land debate in the global South: New avenues for research. *Geoforum* 83, 133–141.
- Superintendencia de Notariado y Registro, 2018. En Boyacá hay 270 mil predios en falsa tradición. Bogotá: Superintendencia de Notariado y Registro.
- Tacoli, C., 2003. The links between urban and rural development. *Environment & Urbanization* 15, 3–12.
- Trochando sin Fronteras (2018), Los páramos, ¿ecosistemas estratégicos para quién? 23 June 2018.
- Ulloa, A., Coronado, S. (Eds.), 2016. Extractivismos y posconflicto en Colombia: retos para la paz territorial. Universidad Nacional de Colombia, Bogotá.
- Ulloa, A., Coronado, S. 2016. Territorios, Estado, actores sociales, derechos y conflictos socioambientales en contextos extractivistas: aportes para el posacuerdo. In: Ulloa, A., Coronado, S. (Eds.), 2016. Extractivismos y posconflicto en Colombia: retos para la paz territorial. Universidad Nacional de Colombia, Bogotá, pp. 22–58.
- United Nations, 2016. The World’s Cities in 2016. United Nations, Geneva.
- Valdés, M.F. (Ed.), 2017. *Ciudades sostenibles en el posconflicto en Colombia: Cartagena, Bogotá, Medellín, Bucaramanga*. Bogotá: Friedrich Ebert Stiftung and Foro Nacional Ambiental.
- van Noorloos, F., Klaufus, C., Steel, G., 2019. Land in urban debates: Unpacking the grab–development dichotomy. *Urban Studies* 56, 855–867.
- Varela, E., 2015. Nuevos roles de los gobiernos locales en la implementación de políticas públicas. Gobernabilidad territorial y competitividad global. *EURE* 4, 213–237.
- Velasquez B., L.S., 1998. Agenda 21; a form of joint environmental management in Manizales, Colombia. *Environment & Urbanization* 10, 9–36.
- Whittingham Munevar, M.V., 2006. For the people, without the people: Decentralization and governance in Bogotá, Colombia (Doctoral Dissertation). University of Pittsburgh.
- Winchester, L., 2006. Desafíos para el desarrollo sostenible de las ciudades en América Latina y El Caribe. *Revista eure* XXXII, 7–25.
- Xu, Y., 2018. Land grabbing by villagers? Insights from intimate land grabbing in the rise of industrial tree plantation sector in Guangxi, China. *Geoforum* 96, 141–149.
- Zoomers, A., 2010. Globalisation and the foreignisation of space: seven processes driving the current global land grab. *The Journal of Peasant Studies* 37, 429–447.
- Zoomers, A., van Noorloos, F., Otsuki, K., Steel, G., van Westen, G., 2017. The Rush for Land in an Urbanizing World: From Land Grabbing Toward Developing Safe, Resilient, and Sustainable Cities and Landscapes. *World Development* 92, 242–252.