

ANALYSING (IN)JUSTICE IN THE INTERPLAY OF URBANISATION AND TRANSPORT: THE CASE OF AGRARIAN EXTRACTIVISM IN THE REGION OF URABÁ IN COLOMBIA

MARITZA TORO LÓPEZ , PIETER VAN DEN BROECK 

Planning and Development Research Unit, Department of Architecture, Faculty of Engineering Science, Katholieke Universiteit Leuven, Belgium

Manuscript received: December 17, 2020

Revised version: March 19, 2021

TORO LÓPEZ M., VAN DEN BROECK P., 2021. Analysing (in)justice in the interplay of urbanisation and transport: The case of agrarian extractivism in the region of Urabá in Colombia. *Quaestiones Geographicae* 40(2), Bogucki Wydawnictwo Naukowe, Poznań, pp. 35–61. 1 table, 10 figs, 3 photos.

ABSTRACT: Infrastructural design, transport and mobility policies are strong instruments for interpreting historical urban and regional transformation processes. The paper addresses the intercausalities between both of them. To do so, it briefly sketches debates on the causalities of transport infrastructure and urbanisation and the theory of technological politics, drawing attention to the relationship between transport infrastructure and politics, and how infrastructures and their techno-political frames include means of power and authority. From there, the paper moves to the debate on the relationship between social justice and transport, showing how transport systems embody social processes and social (in)justice. The history of agrarian extractivism in the region of Urabá in Colombia serves as a case study. The paper shows how existing transport networks of the region of Urabá have supported the expansion of agrarian extractivist industries and more specifically the production of transport (in)justice. It explores the development of the infrastructural network, transport systems and urbanisation of this region from the early 1900s onwards. Results show how the actual agrarian extractivist industries of the region are causing huge challenges related to the overlapping of transport scales, congestion and risks of accidents in urban areas, and how actual transport dynamics in the region are affecting urban development, generating a high segregation characterised by uneven distributions of public services and transport infrastructures. The paper reveals that the existing transport developments in the region of Urabá have no support for local development and are mainly thought for the efficiency of agrarian extractivist industries over local economic development. Agrarian extractivism has been a consistent factor in the economic, political and social spheres, and since colonial times the appropriation of natural resources and the dispossession of territories has been omnipresent. This paper explores the historical role of transport in agrarian extractivism, the long-term impact of the prolongation of old mechanisms, and the interrelations of the latter with current urbanisation and development. It concludes that infrastructural developments in this region have supported agrarian extractivist industries, first in colonial times, but also more recently, showing the deep embeddedness of the relation between mobility and urbanity in the (agrarian extractivist) development history of this region.

KEYWORDS: agrarian extractivism, transport (in)justice, institutionalism, transport infrastructure, urban development, Antioquia, Colombia

Corresponding author: Research fellow Maritza Toro López, Planning and Development Research Unit, Department of Architecture, Faculty of Engineering Science, Kasteelpark Arenberg 1 box 2431, Katholieke Universiteit Leuven, 3001 Leuven, Belgium; e-mails: maritza_toro@hotmail.com; maritza.torolopez@student.kuleuven.be

Introduction

The causal relations and retroactive feedback loops between transport and urbanisation have been questioned by various disciplines for a long time and are quite difficult to comprehend. Some academics argue that development of transport infrastructure promotes urban development (Barro 1990; Barro, Sala-I-Martin 1992, 1995; Bleaney et al. 2001; Romer 1994). Other researchers claim that urban development generates the need of new transport infrastructures (Maparu, Mazumder 2017; Akitoby et al. 2006; Wagner 1958; Wagner, Weber 1977). Rodrigue and Slack (2017) refer to this interaction as a ‘chicken-and-egg’ conundrum, since it is empirically difficult to demonstrate if transport changes precede urbanisation changes, or vice-versa. They see the

interaction as influenced by a complex framework that includes economic, political, demographic and technological characteristics, processes and changes.

In order to shed more light on the interactions of political and technological dynamics in the correlation of transport infrastructure and urbanisation, this paper draws on the theory of technological politics, which emphasises the embeddedness of politics in transport infrastructures. The theory argues that city planning and urban development have many instances of physical arrangements that contain explicit or implicit political purposes and effects, and draws attention to the ways in which large-scale sociotechnical systems embody power or authority of some over others (Winner 1980, 1986, 1992). This leads to questions on who benefits from these projects and how



Fig. 1. Location of the region of Urabá in Colombia.
Source: own compilation.

contemporary infrastructures are instrumental to the interests of the powerful. As such, this paper refers to a more radical debate which criticises large scale infrastructural projects for promoting injustice and reinforcing social and spatial polarisation by supporting profit-oriented developments (Moulaert et al. 2003; Swyngedouw et al. 2004; Van den Broeck 2011). Accordingly, the paper aims to tackle the relationship between social justice and transport infrastructure and the way transport systems in cities embody socio-political dynamics and social (in)justice.

The paper considers the case study of the region of Urabá in the north-east of Colombia, a territory historically devoted mainly to banana exports (Fig. 1). During the last decades in the context of rapid economic globalisation, numerous mobility problems emerged. The urban structure of the territory altered, providing new challenges for these cities to develop and restructure their urban organisation. It appears that the distinctive transport infrastructures and mobility patterns and their recent problems are rooted in the needs and demands of extractivist industries and commerce in this territory, also embedded in wider processes of globalisation (Parsons, Evans 1996). As such, the historically embedded agrarian extractivism in the region of Urabá was chosen as a case study, to understand to what extent and how transport infrastructural developments and mobility patterns in this Colombian region are embedded in agrarian extractivism, to what extent and how they embody specific forms of power and authority, and whether or not and how this at the same time has led to transport (in)justice. The paper will explore transport (in)justice in agrarian extractivism of the region looking at the nexus of: (1) large volumes of agricultural extracted goods destined for export; (2) uneven urbanisation processes; and (3) transport dynamics and (in)justice.

The paper has four main sections including the introduction. The second section briefly sketches the debate on the causalities of transport infrastructure and urbanisation and the theory of technological politics. It then introduces theories of urban justice and transport justice, as an attempt to demonstrate the ways in which transport directly influences the quality of social interactions. It finally proposes an analytical framework combining techno-political frames

with transport injustice, to be mobilised in the case study analysis. The third section explains the paper's methodological stance and discusses the dynamics of transport (infrastructure) in the agrarian extractivist region of Urabá, showing how these dynamics embody socio-economics, socio-politics, power dynamics and conflicts, triggering systemic conflictive transport and urbanisation injustices. This section provides an approach to agrarian extractivism used as developmental models since colonial times in Colombia and analyses transport injustice looking at the history of agrarian extractivism in the region of Urabá, specifically evaluating the historical transformation, as a way of understanding the role of the port areas and transport networks in the regional development and urbanisation in the territory. The section further analyses the region with regards to three interlinked scopes of agrarian extractivism, showing the social and mobility extractivist dynamics which characterised the banana production of the region. The fourth section concludes the paper by reflecting on the evolution of urbanisation and transport in the region of Urabá, how development was driven by agrarian extractivism and how large-scale transport infrastructures promoted (in)justice by providing forms of empowerment for some and exclusion for many.

The techno-politics of transport and urban form and the production of urban and transport (in)justice

The relations between urbanity and transport infrastructure are intrinsic for the development of a territory. However, the causal relations or correlations have been the object of considerable disagreements between academics. Some claim that transport infrastructure promotes urbanisation, while others state that urbanisation creates demand first, which leads to investment in transport infrastructure (Maparu, Mazumder 2017).

To understand this correlation, it is important to comprehend the interplay between transport infrastructure, economic development and urbanisation, as different transport sub-sectors have important roles in promoting economic development and therefore urban development patterns (Maparu, Mazumder 2017). Large scale transport

infrastructures play important roles in determining economic growth (Cain 1997; Boarnet, Crane 2001; Maparu, Mazumder 2017). For instance, as Boarnet and Crane (2001) showed, land and housing prices are prone to decline with distance from important transport nodes. The more expensive the land at a given location, the more likely a given site will be developed densely. Consequently, densities are also expected to decline with distance from node central locations (Boarnet, Crane 2001). As an example, today we are witnessing the growth of the so called 'edge cities' (also known as mega centres or suburban business districts), recognised as rural or residential areas concentrated around industrial centres, entertainment areas and shopping centralities. These 'cities' are also recognised to be settlements concentrated around highways, airports and fast rail connections in the developed parts of the world, while elsewhere informal trading and spontaneous settlements spring up around bus stations and along congested road connections. Most of the time, these developments occur chaotically, after the transport infrastructure has been put into place (Shannon, Smets 2010). Therefore, it is understood that easy access to economic or social activity by transport infrastructures is a primary driver to urbanisation.

On the other hand, turning the causality around, urban areas around the world are rapidly expanding and so is the urban population. Some growth is occurring in high-density peri-urban settlements outside the range of the existing urban facilities. And much growth is likely to consist of urban sprawl, which opposes adequate collective transport service supply, encourages car dependence, and hence reduces accessibility to employment and to urban facilities for the poor (Gwilliam 2002). Therefore, transport planners looking for solutions to offer better transport systems to the sudden rise in travel demand have long employed estimates of trip generation rates and other travel behaviours (Boarnet, Crane 2001; Mitchell, Rapkin 1954). Consequently, new investments in transport infrastructures are being done after urbanisation has created demand. Based on these, some transport planners assume that the built environment does indeed influence transport development (Boarnet, Crane 2001).

The direction of causality of transport infrastructure and urbanisation is then difficult to

predict. It can change through different factors and time periods such as socio-economic regimes, international trade policy and major national political decisions (Maparu, Mazumder 2017). At times, investment in infrastructure led to economic growth and urbanisation (e.g., in the late 19th century during the building of railways in Europe), whereas in other periods economic development led to investment in infrastructure as well as urbanisation (e.g., after independence during the development of heavy industries) (Maparu, Mazumder 2017).

To address the causality of transport infrastructure and urbanisation, the paper positions this causality in broader political and technological dynamics and turns to the theory of technological politics (see also Toro López et al. 2020). This theory was first developed by the political theorist Langdon Winner in 1980. He showed how city planning and urban development have many examples of physical arrangements that contain explicit or implicit political purposes (Winner 1980). He argued that technologies are not neutral, and showed how large-scale sociotechnical systems enhance power or authority of some over others (Winner 1980). Various researchers in fields like history of technology, transport history and political economics have also explored this relationship. Authors like Picon (2018), Cresswell and Merriman (2010), Zeller (2014) and Swyngedouw and Heynen (2003) have pointed out that infrastructure planning is highly contextual, informed by and informing geographies of power, characterised by a peculiar "mixture of professional thinking, technological utopianism, and political assessment" that significantly influences policy-makers (De Block 2011). Additionally, academics in the field of science and technology studies (STS) have also explored these interrelations between 'humans' and 'machines'. Mol and Mesman (1996) called this relationship 'politics of theory' and defined it as the consequences of the different conceptualisations of design and their political influence (Berg 1998). Bruno Latour in his book *Aramis, or the Love of Technology*, addresses that political and social factors are constantly involved in the development of technological projects (Latour 1996). Berg (1998) states that technologies become political agents through touching upon any other constituent in the configuration they are part of (Berg 1998).

Infrastructures, transport planning and urbanisation are thus deeply socio-political not only because of actors' attempts to manipulate these and the political struggle over the choice of their instruments and ways of implementation, but also in their very nature (Van den Broeck 2011). This socio-political perspective leads us to questions who benefits and to what extent and how transport infrastructures and their planning may privilege limited groups of actors. The paper argues that the benefit is for particular actors with differential privileges, selectively targeting economical and urban development. Therefore, the paper shares the critical point of view that large scale infrastructural projects are promoting injustice and reinforcing social and spatial polarisation by supporting profit-oriented developments (Moulaert et al. 2003; Swyngedouw et al. 2004; Van den Broeck 2011).

To further understand the way in which transport systems in cities embody socio-political dynamics and mediate urban development dynamics, the paper refers to the debate on transport and urban and social (in)justice. Over the years, different theories have questioned the fairness of cities, specifically the conflicts related to urban land use, planning and accessibility (Harvey 2009). The research mobilises the concepts of the 'right to the city' of Lefebvre (1996), the 'just city' of Harvey (1973) and the 'spatial justice' of Soja (2010), in order to understand the way transport systems in cities embody social processes and social (in)justice. The 'right to the city', a concept first discussed by the French sociologist and spatial theorist Henri Lefebvre in 1968, has been defined as the right of no exclusion of urban society, especially for the low and middle class, from qualities and benefits of urban life. This entails that citizens have the right to inhabit, appropriate and demand their inclusion to their city, taking a greater part in shaping the city's space (Lefebvre 1996). However, cities work in distinctive ways, since they are constantly generating structures of power, leading to the generation of unequal opportunities and unjust distribution of resources (Harvey 2009). Following David Harvey's (1973) concept of a 'just city', cities are not socially just. He argues that neoliberalism has restored class power to rich elites, benefiting wealthier citizens and impoverishing the poor. Claiming that there is "nothing more unequal than the equal

treatment of unequals" (Harvey 2003), he suggested special attention to citizens in the worst situations in order to cover the needs of access of the whole population. Soja complemented the debate on justice with his concept of 'spatial justice'. The concept is not just limited to the city but also helpful at all geographical scales, from the local to the global scales (Soja 2008). His objective in *Seeking Spatial Justice* is "to stimulate new ways of thinking about and acting to change the unjust geographies in which we live" (Soja 2010). Soja differentiates between three causes of unjust geographies: (1) exogenous geographies, which are described as a top-down perspective of territorial and hierarchical spatial injustices of political power; (2) endogenous geographies, defined as the bottom-up perspective, directly related to spatial discrimination, which involves injustices on distribution and location of infrastructure and services; and (3) mesogeographies which highlight the unjust relationships in-between local and global uneven developments (regional, metropolitan, subnational, etc.) (Soja 2010; Gladwin 2017). Soja supports the regional scale, which he defines as the most important scale for contemporary spatial developments, demanding for a regionalisation of the right to the city, as regional democracy or democratic regionalism. The just city therefore has to incorporate, as was defined by Soja, a regional democracy. This needs to be accomplished in a way that represents society as a whole.

In terms of transport, the 1950s are considered as a starting point for thinking about social issues related to transport (Beyazit 2011). However, only by the mid-1990s, a growing interest in the relationship between social justice and transport was evident (Beyazit 2011). The issues that drew academia's attention included challenges such as disability, inaccessibility, gender, colour, age, ethnicity, income and class (Banister 1994; Church et al. 2000; Bullard et al. 2000; Sánchez et al. 2003; Rajé et al. 2004; Beyazit 2011), and indicators such as income (Cervero, Landis 1997; Leck et al. 2008; Beyazit 2011), travel poverty (Lucas et al. 2001; Lucas 2005) and social participation (Putnam 2000; Banister 2005). In addition, various academics focused on the intersection of transport infrastructure, social equality and civil rights. For instance, environmental justice scholars Robert Bullard and Glenn

Johnson declared that transport investments, enhancements and financial resources have always provided advantages for some communities, while at the same time, other communities have been disadvantaged by transport decision making (Bullard, Johnson 1997). With a more urban vision, the Brazilian transport planner and sociologist Eduardo A. Vasconcellos (2001) claimed that traditional transport planning has generated transport systems that propagate an unfair distribution of accessibility and have environmental and safety issues. His book *Urban Transport, Environment and Equity* (2001) highlights the importance of social and political aspects of transport policy and emphasises the importance of coordinating urban, transport and traffic planning and further addresses the major challenge of modifying the building and use of roads (Vasconcellos 2001). On the other hand, spatial planning and transport expert Karel Martens (2017) reclaims in his book *Transport Justice* a new paradigm for transport planning based on principles of justice. He starts from the observation that for the last 50 years the focus of transport planning and policy has been on the performance of the transport system and the ways to improve it, without much attention being paid to the persons actually using, or failing to use, that system (Martens 2017). He alleges that the focus should radically shift towards citizens and towards the contribution of the transport system to a person's ability to participate in activities offered by the city (Martens 2017). A similar definition of social justice in transport is made by Eda Beyazit, referring to the fairness in the physical distribution of goods, accessibility, distribution and affordability of all modes of transport (Beyazit 2011), and claiming there is evidence that transport systems have been developed on the basis of specific (industry) interests. Similarly, Gössling identified 'transport injustices' within three dimensions: exposure to traffic risks and pollutants, distribution of space, and the valuation of time. As such, he argues that public and political recognition of urban transport injustices provides a significant argument for changes in urban planning, transport infrastructure development and traffic management (Gössling 2016).

Finally, building on this literature and to enable an analysis of the socio-politics of transport

(infrastructure), the paper mobilises the concept of techno-political frames as developed in the previous paper (Toro López et al. 2020) and adds the dimension of transport (in)justice to it. Techno-political frames include the institutional dimensions of transport (infrastructure), such as economic mechanisms, transport investments, enhancements and financial resources, infrastructure and mobility policies, transport decision-making procedures, knowledge systems, regulation, social and political aspects of transport policy, mobility cultures, discourses on infrastructure and mobility, coordinating urban, transport and traffic planning, building and use of roads, etc., which are all selective and embody institutionalised patterns of power and authority that favour some infrastructure users, social classes and mobility patterns over others, and are continuously (re)produced but sometimes contested and changed by these very users. The paper thus sees transport (infrastructure) and mobility patterns as embedded in the dialectics of actors and techno-political frames. This socio-political perspective enables a critical position in relation to the socio-political content and impact on socio-territorial dynamics of transport (infrastructure and mobility patterns). It allows interpreting transport-related actors and relevant social groups who embed their interests in the various dimensions of techno-political frames. Since the interactions between actors and techno-political frames of transport are favouring some specific groups and excluding others, they enable the analysis of the production of transport (in)justice. This can be operationalised by looking at the distribution of accessibility and environmental and safety issues, the contribution of transport systems to people's abilities to participate in activities offered by local authorities, the fairness in the physical distribution of goods, accessibility, distribution and affordability of all modes of transport, exposure to traffic risks and pollutants, distribution of space, and the valuation of time (Vasconcellos 2001; Martens 2017). As a result, the analysis focuses on transport infrastructures and their techno-political frames, both hegemonic and counter-hegemonic, and more specifically, in how transport (infrastructure) and mobility patterns are embedded in socio-political qualities and favour specific actors and interests.

The case of agrarian extractivism in Urabá

Methodology

Building on the review of urban and transport (in)justice literature mentioned above and mobilising the analytical frame, the following sections focus on the dynamics of transport and urbanisation and the production of transport (in)justice, related to the historical practice of agrarian extractivism in the region of Urabá in Colombia as a case study. Agrarian extractivist practices in this region are known for their distinctive spatial features of agricultural activities, which had suffered huge challenges related to poor transport infrastructures and urban development. Income, development and infrastructural growth are distributed unequally amongst the four main municipalities that compose the region (Turbo, Apartado, Carepa and Chigorodo). The case study shows how transport planning and urbanisation were instrumental for agrarian extractivist industries in this region and contributed to the production of transport (in)justice. Transport planning mainly addressed the functioning of agrarian extractivist car-oriented transport systems and users, rather than forms of walking, cycling and collective transport which are in the interests of less privileged transport participants.

The case study analysis was built on semi-structured interviews with key actors, government reports, policy documents and reports,

historical data, scientific articles and books, laws and regulations, research carried out by students, minutes of meetings, press articles, websites, site visits, participant observation in everyday practices of mobility, seminars and informal talks. The mapping of transport infrastructures and urbanisation also played an important role. The recollection and analysis of these data lead us to the identification of the relevant actors, relevant social groups (not just public ones) and techno-political frames that embody and structure the (techno-politics and institutional dynamics of the) infrastructure—urban form nexus and the ways transport (in)justice is produced in the interaction of these.

During the site visits, the following interviews and mapping of the stakeholders involved in the urban and transport planning were done.

State bodies:

- Planning secretariat - Urabá
- Mobility secretariat - Urabá
- Director ASOMURA (Municipal Association of Urabá)
- Director ANI (National Infrastructure Agency)

Private actors:

- General manager - Banacol
- Logistics manager - Banacol
- Housing and infrastructure department - Corbanacol
- Marketing manager - Uniban

Academic institutions:

- Director URBAM (Urban and environmental research group EAFIT University)

Table. 1. Agrarian extractivist actors, their techno-political frames and (in)justices.

	Dominant extractivist regime	Systemic conflicts
Actors and relevant social groups	<ul style="list-style-type: none"> - Spanish colony - Rubber companies (Goodyear) - Vegetable ivory companies (German companies) - Marine transport companies (Pacific Steam Navigation Co. and Pacific Railroad Co.) - Banana companies (Banacol, Uniban, Augura, etc) - Port concession of Colombia - Port areas in Urabá - Local political institutions of Urabá - Colombian government - U.S. Government - ANI (Asociación Nacional de Infraestructura) - PIO SAS (Puertos, Inversiones y Obras S.A.) - Landlord's militias - Colombia's Ministry of Transport - Freight transport companies - Paramilitary groups 	<ul style="list-style-type: none"> - Indigenous groups - Rural peasant communities (local banana producers) - Low-income groups - Rural day labourers (colonos) - UFCO employees - Self-defence communities - Political parties (Socialist Revolutionary Party, Communist Party and UNIR) - Guerilla groups

	Dominant extractivist regime	Systemic conflicts
Techno-political frames	<ul style="list-style-type: none"> - Developmental model oriented to maximising productivity, profits and efficiency of banana production - Harvests of banana companies tend to have little or no processing. - Governmental regulations related to mineral and oil extraction rather than to agricultural extraction - UFCO territorial control systems of getting lands - Agricultural landscapes revealed a huge potentiality, mainly for foreign companies - Transport infrastructures planned and built focusing on the performance of the transport systems related to agro-extractivism without thinking of needs of inhabitants - Ineffective land reforms due to corruption within government institutions - Government of Colombia de-emphasised land reform and shifted focus to rural development through agribusiness. - Law 200 (eviction of tenant farmers indiscriminately) - Transport infrastructures as crucial instruments in the context of rapid economic globalisation - Military violence (pre-existing power structure approved by the state) 	<ul style="list-style-type: none"> - Developmental model is not being driven by principles of social and environmental well-being - Little job creation for local communities by banana companies as the harvests produced do not require much processing - Societal fragmentation - Rural peasants migration to agro-extractivist areas in search of better opportunities, since they were suffering huge challenges related to unemployment and lack of basic services in their rural areas - Local population without an income and more likely to rely on informal, survivalist strategies - Exclusion of low class population from the qualities and benefits of urban life. - Urban inequity and rise to high concentrations of poverty
Urban, rural and transport (in)justices	<ul style="list-style-type: none"> - Almost all transport infrastructures and heavy machinery are related to banana production - Traditional planning refrained from coordinating existing urban, transport and traffic dynamics - In harvesting period families arrived and settled in private properties in temporary shelters - Urban and transport planning was based on providing a better connection of the agro-extractivist region with Medellín and the main production and consumption centres of the country - Transport infrastructures that support export-oriented industries - <i>La vía al mar</i> provided a higher monocrop productivity of banana production. - Road infrastructure (4-lane design, targeted mode and type of transport, trajectory, materiality, required size of investment, etc) 	<ul style="list-style-type: none"> - Urban fragmentation related to the social division of labour - Inadequate provision of public services - Fundamental changes related to excessive population growth rates - Excessive use of available resources, in particular water resources - Mobilisation of entire groups of families along the rivers and mountains of the region, establishing new urban and rural settlements - Migrant influx led to an embryonic market for informal settlements in urban areas - Planning and design of transport infrastructural projects propagate an unfair distribution of accessibility - Changes to the rural landscape (areas accommodated different human behaviours and activities for land-use practices) - Rural peasants lacking sufficient basic services provoked a constant migration of its population to the agricultural lands - Small farms were replaced by large-scale agro-extractivist infrastructures (illegally appropriation) - Urban clusters became concentrations of unplanned settlements - Urban settlements located in protected areas and areas risking flooding - Transport infrastructures contributing to the increase of traffic congestion in urban areas and excessive demand for the capacity of the road - Overcrowded concentration of informal commercial activities along the highway - Urban areas became a transit zone

Source: own compilation.

- Academic coordinator URBAM
- Director of the research group on roads and transport UNAL (National University of Colombia)

To elaborate the analysis, Section 3.2 first summarises the general characteristics of extractivism, as a background for the following steps. Section 3.3 addresses the production of transport (in)justice throughout the extractivist practices in this region throughout history by exploring transport dynamics in the interactions of actors, relevant social groups and the concrete extractivist techno-political frames. Section 3.4 summarises the socio-political nature of transport (infrastructure) and concomitant transport injustices in the overall extractivist regime in Urabá.

The analysis is further summarised in Table 1, which positions the empirical findings against the analytical categories of actors and relevant social groups, techno-political frames and urban, rural and transport (in)justices, both for the dominant extractivist regime of Urabá explored as a case study and the systemic conflicts embedded into it. The table supports the explorations in the following sections.

Agrarian extractivism

In Latin American history, the agrarian extractivist sector has always played an essential role in shaping each period's economic, social, political and urban development (Bretón, Martínez 2017). This development has been pushed by opportunities to make surprising profits by extracting and selling agricultural products for which there is a strong demand on the world market (Petras, Veltmeyer 2014). However, this history has also been inseparably related to extractivism (Burchardt, Dietz 2014). The Colombian agricultural sector, specifically the banana industry, is an example of this agrarian extractivist development model, since it involves extracting and exporting particular agricultural goods. Two contradictory opinions on this developmental model emerged for most of the 20th century in Colombia: (1) it was considered as crisis-prone, politically unstable and poverty-reinforcing, and (2) it was highlighted as a model full of positive effects, such as stabilising rates of growth, increasing direct foreign investment, expanding the middle classes and reducing poverty (Burchardt, Dietz 2014).

Extractivism refers to the activities or the process of extracting large quantities of natural resources destined for export. These resources are sold on the world market as there is a lack of demand in the country of origin. Extractivism is not limited to mineral or oil extraction, it is also present in farming, forestry and even fishing (Acosta 2013). The first historical phase of extractivism in Latin America is colonial exploitation, which extends from the conquista to the independence of the colonial countries in the early 19th century (Burchardt, Dietz 2014). Yet, around the late 1990s this activity has become an important economic and developmental model, since it has evolved in the course of neoliberal strategies for which stabilising growth rates, increasing direct foreign investment and reducing poverty were key for development to occur (Burchardt, Dietz 2014). The debate on extractivism began with the classification given by the social scientist Eduardo Gudynas who categorises extractivism referring to three basic dimensions: (1) volume of resources extracted; (2) intensity of the extraction; and (3) resources destined for export (Gudynas 2013). Therefore, Gudynas' theory is basically related to specific characteristics in terms of quantity, intensity and destination.

As agriculture can be described as a form of extractivism, agrarian extractivism has been defined as agriculture oriented towards capital-intensive monocultures, which requires specific technologies based on the development of infrastructure (transport, housing, energy, etc.) and certain legal and financial frameworks (Gudynas 2013; Göbel 2014). It is a developmental model that, instead of being driven by principles of social and environmental well-being, is oriented to continuously maximising productivity, profits and efficiency (Mol 2017). Generally, harvests produced in the region of cultivation tend to have little or no processing, meaning that the additional value of production that results from the transformation of raw materials is done outside the region where the agrarian industry is situated (Mol 2017; Grigera, Álvarez 2013). Ben Mackay contributed to the discourse on agrarian extractivism with a more recent characterisation of certain forms and modes of agricultural production. He studied Bolivia's soy complex through analysing four interlinked dimensions of agrarian extractivism: (1) large volumes of

materials extracted destined for export with little or no processing; (2) value-chain concentration and sectoral disarticulation; (3) high intensity of environmental degradation; and (4) deterioration of labour opportunities and/or labour conditions (McKay 2017). He argues that agricultural activity that involves these four interlinked dimensions is better characterised as agrarian extractivism, rather than industrial agriculture due to the very social, economic and environmental extractive dynamics (McKay 2017). Thus, Mackay's theory explores a bit more into the recent extractivist dynamics, dealing with the impact of agrarian extractivism on rural development.

As demonstrated so far, extractivism seems to be more than a simple activity of a particular modality of the colonial economy (Martín 2017). It is also a developmental model related to the expression of political dominance that condenses huge conflicts and challenges of cultural and socio-political dimensions (Martín 2017; Burchardt, Dietz 2014). However, it is evident that such phenomena cannot be only related within economic structures or political institutions (Martín 2017). Instead, more attention should be paid to the impact on urban development. For instance, literature highlights how extractivism has a tendency of fragmentation, producing functionally specific, distinct spaces corresponding to the spatial translation of the social division of labour (housing, leisure, transport, production, and so forth) (Arboleda 2016; Lefebvre 2009c [1980]). Extractivism has made dramatic impacts on innumerable places and ecosystems around the world, including indigenous territories, peasant communities, administrative divisions such as municipalities or departments, or protected areas, (Munck, Wise 2018), rendering a splintered pattern of landscapes of extraction with their rhizomes of highways, railways, pipelines, satellite towns, power lines and heavy machinery (Arboleda 2016; Merrifield 2014). For instance, Gilmore (1976) referred to 'boom towns' as rapidly growing settlements resulting from the exploitation of natural resources. Susskind and O'Hare (1977) complemented by identifying eight social and economic components of these territories: (1) societal fragmentation, (2) inadequate provision of public services, (3) shortage of goods and services (especially of housing), (4) inflationary trends resulting from rising land

prices, (5) growing tax deficit, (6) excessive use of available resources, in particular water resources, (7) aesthetic decay of the settlement, (8) fundamental changes related to excessive population growth rates (Susskind, O'Hare 1977; Braumann, Stadel 1999).

In the following section, the paper will delve deeper into the particular transport dynamics within the concrete extractivist techno-political frames as they evolved throughout history in the region of Urabá in Colombia, in order to better understand the concomitant production of transport challenges and injustices.

The history of transport and urbanisation and transport (in)justice in agrarian extractivist techno-political frames in Urabá

In Colombia, the history of extractivism started in colonial times when the colonies had to provide Spain with raw materials (Parsons, Evans 1996). The extensions of the colonial possessions during that time were based on the specificity of the natural environments. From the coastal areas towards the interior, colonisers were in search of wealthier regions suitable for agriculture. Given the variety of environments and possessions during that time and the opening for navigation of the Magdalena River in 1850, the colonisers structured economic activities and trade in the colonies in different ways. Linking the agriculture of the interior to the world economy, they consolidated the production of the main products of the country: tobacco, cocoa, coffee, sugar cane and banana. As a result, in 1835 agricultural exports constituted 8.64% of the total external sales, and increased to 64.78% in 1855 (Portafolio 2010). Mining during this time was a minor activity and it was not yet established for export.

In Colombia the term extractivism is commonly used and related to mining but not to agriculture. Therefore, the term agrarian extractivism is more linked to the recent neo-extractivism than to the historical methods of extraction. Consequently, governmental regulations are mostly related to mineral and oil extraction rather than to agricultural extraction. Colombia has not had a long mining tradition like other countries in Latin America, such as Chile, Bolivia and Peru. However, assuming its importance as a developmental model, in the year of 1969,

the state government nationalised all the mining industries (Ley 20, 1969), establishing the principles of absolute ownership over the subsoil, and declaring that the mining industry is of public utility and social interest of the nation (Duarte 2012). Over 20 years later, during the neoliberal governance of the country, and considering the importance of mining extraction for economic and political development in Latin America, the Colombian government established a model which promoted privatisation, liberation and direct foreign investment as means to guarantee social and economic growth (Vélez-Torres, Ruiz-Torres 2015).

After the political constitution of 1991, four political milestones characterised the neoliberal mining regulation promoted in Colombia. First, mining institutions were restructured during the 1990s (Decreto 2119, 1992; Decreto 2152, 1999; Duarte 2012). Second, a new mining code was created in 2001 (Ley 685), in which the functions of the state were limited to facilitate and supervise mining activities. Third, in the early 2000s the existing public mining companies CARBOCOL and MINERCOL were liquidated (Decreto 520, 2003; Decreto 254, 2004). And finally, a fiscal system was proposed which extended

the perks to foreign mining companies (Ley 1530, 2012) (Vélez-Torres, Ruiz-Torres 2015). Still, these regulatory reforms did not guarantee the opening of the mining frontiers in Colombia. The day the ex-president Alvaro Uribe Vélez (2002–2010) offered military security to foreign investors marked the growth of investment in the country (Vélez-Torres, Ruiz-Torres 2015).

In order to understand the structure and morphology of the region of Urabá in a better way, the remainder of this section re-traces the urbanism of the territory. This approach will provide evidence on the importance of the infrastructural design for extractivism in the region and how this produces transport (in)justice throughout its historical transformation.

Period 1: 'El camino de occidente', the first infrastructure that supported extractivism

The first period covers the time from 17th to 19th century. The physical geography, rich natural resources and climate, marked the urbanity of the territory. Since the Spanish colony, the main agricultural production included first rubber and later nuts and tropical wood. During this first period, Goodyear (tire and rubber company from

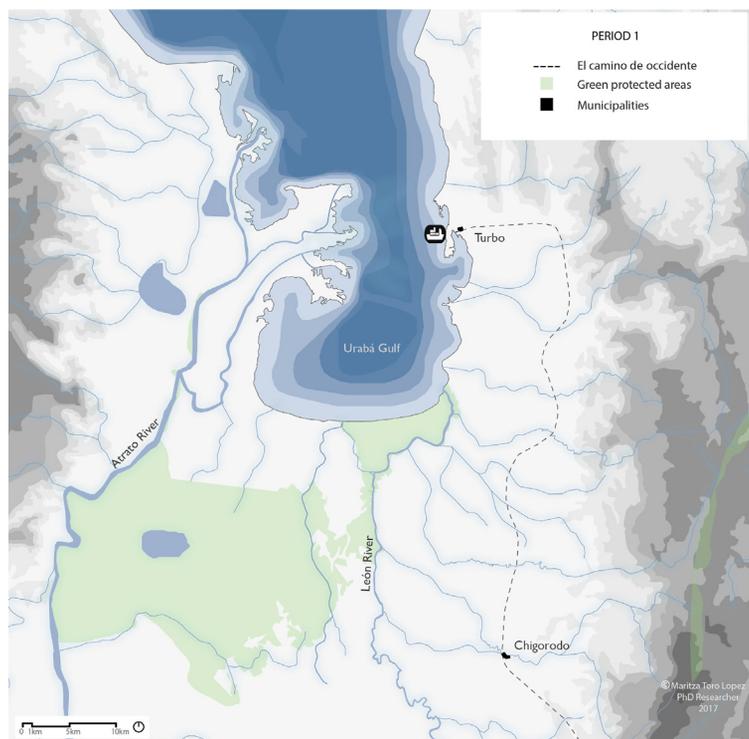


Fig. 2. Period 1: *El camino de occidente*, the first infrastructure that supported extractivism. Source: own compilation.

Akron, Ohio) started processing and exporting 80 tons of rubber per year (Parsons, Evans 1996). This product was the most valuable item in the list of exports of the country during this time. However, the excessive exploitation of rubber tappers, eager to extract the last drop of latex, led to a huge reduction and even disappearance of this rich natural resource (Parsons, Evans 1996).

During this time, road infrastructure was not planned in the region. Consequently, horses were one of the few options for easier transport of goods on rough lands with no roads. However, the region also relied on internal and coastal waterways for shipping internationally. The first two important settlements in the region between the years 1840 and 1878 were the municipalities of Turbo (port town) and Chigorodó. Both originated from the promising extractive potential and port in the gulf, the intense maritime trade, commercial activities and the opening for navigation of the Atrato River in 1810 (Osorio 2006).

In the year 1846, the national government decided to propose a road to link part of the Urabá region with the gulf in order to make the export and import of goods more efficient, as extractivism had become a developmental model for the region. *El camino de occidente* or the path to the west was the first primary road connection in the region designed by the English engineer Juan H. White in 1886 (Fig. 2) (Ortega, Vidal 2010). The success of this infrastructural design in the following years established the foundation for the later economic growth of the territory, as this axis structured the region and turned out to be the basis for the future urban settlements of Urabá.

Period 2: Tagua exploitation led to the emergence of the municipality of Apartadó

The second period includes the late 19th and early 20th centuries. At the time, the tagua palm (*Phytelephas* spp.) began to replace the rubber tree. The egg size walnuts (ivory nuts or vegetable ivory) were harvested by rural inhabitants in the frequently flooded extensive palm forests of Urabá. Germany was the first country to start importing ivory nuts, and quickly became aware of the potentials of this new and interesting raw material. Vegetable ivory became a popular material

for making various types of buttons, toys, cane handles and jewellery (Barfod 1989). The first export of tagua from Colombia was registered in 1845, some 20 years before Ecuador also became an important exporter of this product (Parsons, Evans 1996).

In terms of transport, the tagua was transported from the sites of collection upstream along the rivers in canoes to centres of commerce on the coast (Barfod 1989). Transport to the United States was nearly monopolised by a British company named Pacific Steam Navigation Co. and by the Pacific Railroad Co. in Panama, which transported the cargo across the Isthmus of Panama by train (Barfod 1989).

In 1925, a rough estimate of the production of Tagua in Colombia was made. By observing an average distance of six metres between the mature tagua palms in fructification and single individual production, it was deduced that the total annual production was 2.25 metric tons of ivory nuts from one hectare of a natural population (Barfod 1989). For many years, Urabá was the second world producer of tagua after Ecuador. It was projected that if the region was well-exploited, it could supply the total demand of the European market (20,000 tons). However, with the introduction of plastic buttons after the First World War, trade decreased rapidly.

Tagua exploitation led to the mobilisation of entire groups of families along the rivers and mountains of the region, establishing new urban and rural settlements. In this second period, a new municipality emerged, Apartadó (in the year 1907), which is today the most important municipality of the region of Urabá (Fig. 3). It can be readily understood that this urban settlement was established basically because of the extractive activity related to tagua, and the existing road infrastructure (*El camino de occidente*) built years before since it was a central hub within the agricultural lands as well as a vital crossing point of secondary roads. However, the emergence of the municipality of Apartadó can also be associated with geopolitical and economic factors linked to this period. Rural peasants during this time had to migrate to these agrarian extractivist areas in search of better opportunities, since they were confronted with huge challenges related to unemployment and lack of basic services in their rural areas (Tovar 2001). The migrant influx

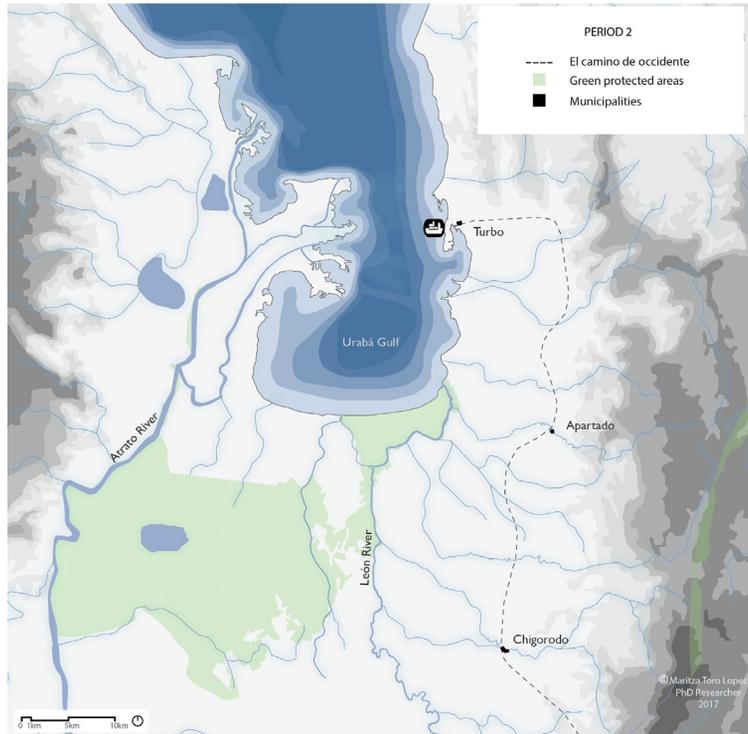


Fig. 3. Period 2: Tagua exploitation led to the emergence of the municipality of Apartadó.
Source: own compilation.

during this period led to an embryonic market for informal settlements in the existing urban areas. Nonetheless, the attention in this region was mainly focused on agricultural extraction, rather than on urban sprawl. Therefore, Apartadó is a clear example of an (in)just development, supported by urban and transport planning, which mainly focused on specific aspects of extractive industries without common benefits neither for vulnerable citizens nor for the region as a whole.

In 1909, during the presidency of Rafael Reyes Prieto (1904–1909), the Colombian government donated some land to promote industrial colonisation to United Fruit Company¹, a large banana company. Moreover, discussions in the region revolved around proposals for a railway project to connect Turbo with Medellín. The main idea was to upgrade the existing road connection (*El camino de occidente*) and convert it into a railway

line. The proposal appeared too ambitious for the time, considering that the costs were very high and the project was too difficult to build due to the enormous geographical barriers that separated the region with Medellín (Leyva 1993). Therefore, the project was never realised.

Period 3: The natural and artificial infrastructures of the region resulted in the establishment of important precedents for the future

The third period, starting from the early 20th century, is characterised by productive activities based on banana and cotton. During that time, the economy of the region was still very fragile since a large number of rural peasants that immigrated to the region did not have a steady job. Therefore, this local population was likely to be without an income and more likely to rely on informal, survivalist strategies. However, the arrival of the new agricultural industries and the concentration of labour brought hope to these local inhabitants in economic terms. By reaching a higher production yield, the agricultural landscapes revealed a huge potentiality mainly for foreign companies in the region (Parsons, Evans

¹ The United Fruit Company had during this time the absolute monopoly of the production and export of banana throughout Latin America. Specifically, in Colombia the company began its production in the Magdalena region. It settled in the Urabá region only until 1960. United Fruit Company later became United Brands Company in 1970, and in 1985 it became Chiquita Brands International.

1996). As has been mentioned previously, the priority during this time was mainly focused on the rise of agrarian extractivist industries rather than on meeting the needs of the local population. As such, as the preference leaned towards infrastructures related to agrarian extractivism, the benefits produced in the banana region are a good example of (in)justice in transport. From the beginning itself, traditional planning in the region refrained from coordinating the existing urban, transport and traffic dynamics, which led to the design of infrastructural projects that propagated an unfair distribution of accessibility.

As agricultural industries were at first promising in every sphere for the local population, this led to the mobilisation and internal migration of entire groups of families to these productive rural areas for short and long periods of time. Therefore, the concentration of rural clusters in the agricultural landscapes was much more evident during this phase (Fig. 4). It led to changes in the rural landscape as some specific areas accommodated different human behaviours and activities for land-use practices. For instance, for every nine months which is the harvesting period of the banana production, families of approximately

five members were employed, who arrived and settled in temporary shelters. These settlements were established on private properties on a large scale, where tenure was contested and unclear for families who settled for long-term periods. It is therefore evident that the region of Urabá has been excluding a low class population from the qualities and benefits of urban life, restricting citizens from the right to inhabit, appropriate and demand inclusion to their city and making them dependent on private foreign companies in many ways.

Tropical wood extraction was also important during this period in Colombia. However, there is no detailed data on the exploitation of this product in Urabá. Still, it is known that transport for export happened by means of the existing land and water infrastructures of the region. Tropical wood was for example transported by *El camino de occidente* or the Atrato River, crossing the Atlantic to get to Philadelphia and New York (Parsons, Evans 1996). These infrastructures not only promoted the export of products abroad, but also determined the growth and agricultural development of the territory. Consequently, the aforementioned natural and

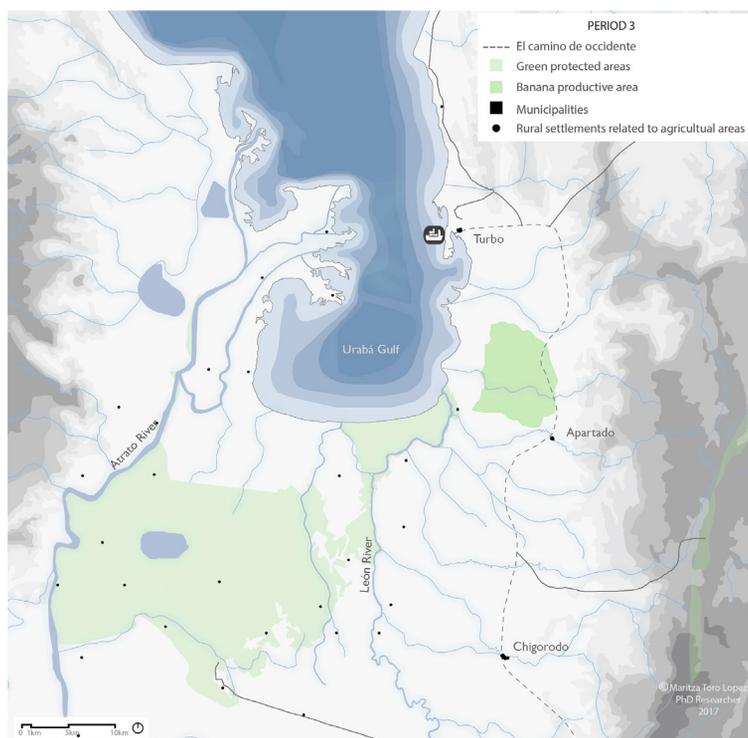


Fig. 4. Period 3: The natural and artificial infrastructures of the region resulted in the establishment of important precedents for the future.

Source: own compilation.

artificial infrastructures of the region resulted in the establishment of important precedents for the future urban and rural growth of the region.

Period 4: Designing a regional highway 'La vía al mar'

During the fourth period (mid-20th century), the road to communicate Urabá with Medellín (*La vía al mar*, see also Toro López et al. 2020) was constructed. Although initially the project was promoted and financed by the local government (Antioquia), the national government wanted to be part of it and finally had an important economic input. Three different proposals were presented and finally the local government accepted the plan of the engineer Gonzalo Mejía. The construction began in the year 1940 and was completed after 20 years. While this artery was in construction, Carepa emerged as a new municipality in 1950 (Fig. 5). This settlement was established similarly as the municipality of Apartadó. Geopolitical and economic factors linked to this period led to its emergence. Rural peasants lacking sufficient basic services such as schools, medical centres and commercial centralities in their territories, provoked a constant migration of its

population to the agricultural land related to the exploitation of cotton and bananas. These immigrants settled on the main infrastructural axis (*La vía al mar*) in order to have better routes of communication with other municipalities. Therefore, one can tell that the municipality of Carepa was settled on an already infrastructurally (in)just environment as it replicates the priorities of urban and transport planning in a region in which principal objectives were to provide a better connection of the agrarian extractivist region with Medellín (capital of the department) and the main production and consumption centres of the country.

During that period the productive activities in the region were based on banana and cotton, however there was more optimism in the production of cotton, since there was an economic boom related to the textile industry in Medellín. Therefore, the political supporters of *La vía al mar* were in favour of the exploitation of cotton in the territory as the infrastructure supporting export-oriented industries guaranteed a major role in the economy of Medellín as well as a better connection to the coast.

La vía al mar brought five essential outcomes to the territory. (1) This artery was the pillar to

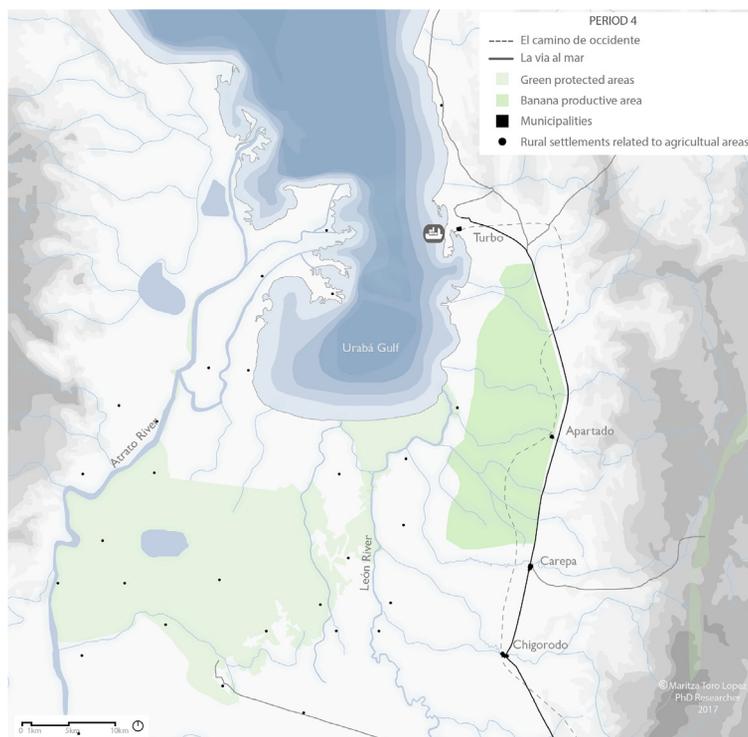


Fig. 5. Period 4: Designing a regional highway *La vía al mar*.
Source: own compilation.

link the inferior local feeder roads, performing a network of primary and secondary connections, which constituted a lower level in the traffic hierarchy (local transport). Therefore, *La vía al mar* was the backbone to link the local mobility networks of the municipalities with the primary traffic connection of the region of Urabá. It allowed the connection and flows of transport between the productive landscapes and the commercial areas of the city. (2) It operated as a conductor of heavy transit and port traffic to the centre of the country. (3) It functioned as the urban backbone, being a collector and connector, concentrating the main flows of people and services sustaining the urban cores. (4) It absorbed urbanisation and shaped the morphology of the existing urban clusters, as the main municipalities of the region grew parallel to this new infrastructure. Besides, it absorbed all the commercial activities and structured the city's largest public space. (5) It benefited the transport of agricultural production of the territory, as it supported the consolidation of the banana industry, providing a higher monocrop productivity of banana production.

As such, *La vía al mar* was planned and built focusing mainly on the performance of the

transport systems related to agrarian extractivism and ways to improve it, without much thought of the needs of inhabitants actually using the system.

Period 5: The consolidation of the banana industry

During the fifth period (late 20th century), the most important land reform in the region of Urabá occurred. The consolidation of the banana industry was a reality (1960). At this point, the goal was to increase the efficiency and capacity of the agricultural landscape. Therefore, in the mid-1980s, the region produced an annual average of 60,000 tons of bananas. In 1990, this quantity was multiplied by four, reaching more than 270,000 tons. By the year 1991, banana crops employed over 9,000 people (Morón 2000; Grajales 2011).

This growth laid a solid foundation for the Urabá agricultural sector (Bucheli 2005; UN 1993). The spatial consequence of this planning and implementation process brought new infrastructures to the existing agricultural areas completely changing the morphology of the rural territory (Fig. 6). The success of the banana industry sector in Urabá brought a lot of investment and huge

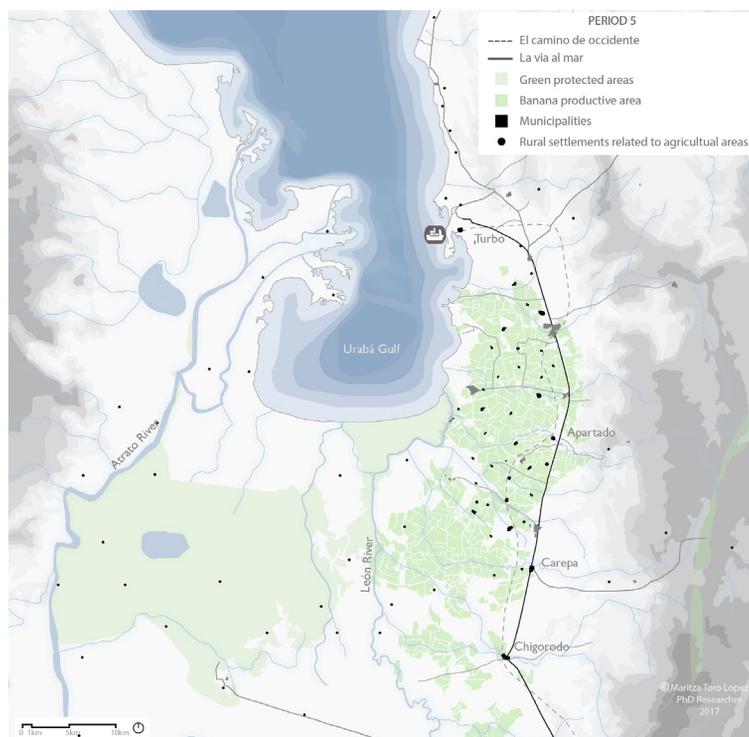


Fig. 6. Period 5: The consolidation of the banana industry.
Source: own compilation.

agrarian industrial projects, constituting today a prosperous model of the economic history of Colombia (Agudelo 2011). However, the banana industry only benefited a limited group of people of the existing international trading companies (Banacol, Uniban, Augura, etc.), given that there was not a shared prosperity neither a respect of the community needs and the environment. The agricultural landscape benefited from the ending of the construction of *La vía al mar* during this period. This artery increased the region's proximity to many places, not just within the territory but also to the centre of the country. Therefore, it was the ideal infrastructure for distribution, collection and related agricultural functions. The newly developing industries and infrastructures supported industrialisation and economic prosperity in Urabá, but the consolidation of the banana industry also brought (in)justice to the region. *La vía al mar* provided advantages to specific actors, and at the same time disadvantaged other communities through transport decision-making. Additionally, this new regional infrastructure pushed the creation of different landmarks in the territory. Clearly, the new extractive agricultural clusters, urban growth and transport defined some nodes, which currently serve as reference points in the territory. These landmarks started developing their own identity and specificity, and established the foundations for the later urban settlements of the region.

Period 6: Presence of guerrilla and paramilitary groups

The sixth period includes the late 20th century and early 21st century, characterised by the disturbing presence of the guerrilla and paramilitaries in the region. The emergence of these armed groups in the territory started when rural unions of the banana industries began asking for better wages and working conditions. Since the United Fruit Company was attempting to extend its territorial control, expelling the *colonos*² from their lands, local peasants formed the so-called *autodefensas* or self-defence communities as a means of protecting themselves from landlord's

militias and the threat of expulsion from their lands (Thomson 2011). These agrarian unions in the region had great support, as there already existed an important formation of governmental opposition parties in the country, such as the Socialist Revolutionary Party (established in 1926), the Communist Party (established in 1930) and the Leftist Revolutionary Union or UNIR (established in 1933), which got involved in uniting and mobilising peasants and indigenous groups (Thomson 2011; Zamosc 1986; Fajardo 1983; Galli 1978). Later, in 1994, Carlos Castaño created the Peasant Self-Defense Forces of Cordoba and Urabá (ACCU), a paramilitary group initially active in the region of Cordoba. In 1997, the ACCU became the United Self-Defense Forces of Colombia (AUC) (Saab, Taylor 2009).

Also, during that time, a strong influence of the United States in Colombia's political economy was evident. The value of North American investments, mostly in agrarian export projects, petroleum and gold extraction, rose from US\$4 million in 1913 to US\$250 million in 1929 (Thomson 2011) (Fajardo 1983).

In addition, drug income at the time fuelled the purchase of millions of hectares of land. Therefore, armed groups were always fighting for control over territories to trade arms, illegal drugs and existing trafficking routes (Castilla 2001). For this reason, guerrillas and paramilitary groups settled in the banana fields of the region of Urabá. As the region has principal route connections to access Panama and the United States, armed groups were continuously fighting for the control of this territory. The violence amongst them and the existing social inequalities on the region forced the inhabitants of these rural areas to migrate to the main urban settlements along *La vía al mar* (Fig. 7) (Lair 2000). Also, other political factors had an important effect on forced displacement in the region, for example, related to a shift in land tenancy and use (ICTJ 2009), where historically different government interventions aiming to foster land reforms have been ineffective due to corruption within government institutions, for instance, the Government of Colombia de-emphasised land reform and shifted focus to rural development through agribusiness. For instance, Law 200 (1936) aimed to redistribute empty land by protecting tenant farmers' rights; however, landowners responded

² The word *colonos* refers to local farmers with banana cultivations who used to pay rent or lease of a farm to be able to cultivate it and take advantage of it.

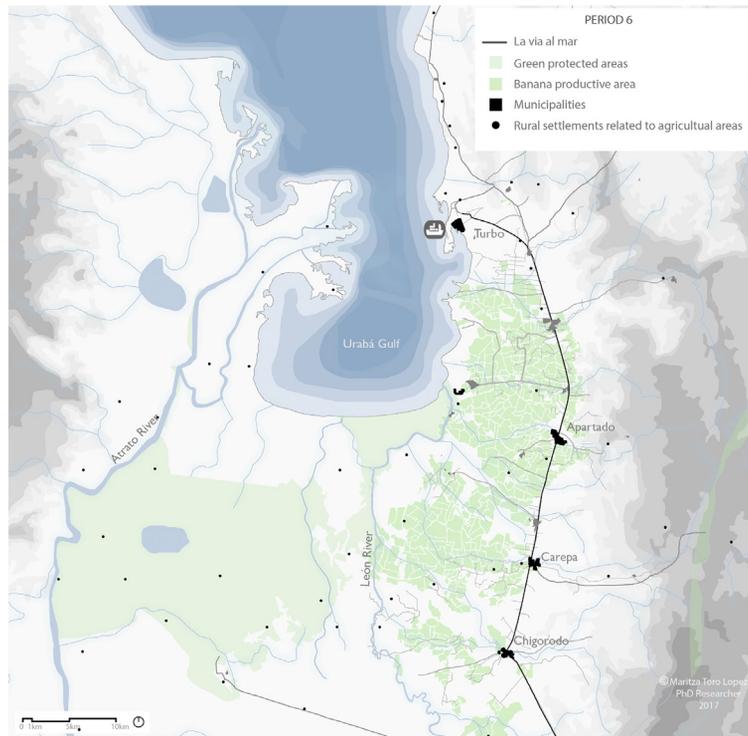


Fig. 7. Period 6: The conflict.
Source: own compilation.

by evicting tenant farmers indiscriminately. Small farms during that time were replaced by large-scale agrarian extractivist infrastructures. Consequently, three to seven million hectares of land in Colombia have been illegally appropriated as a result of displacement (ICTJ 2009).

Migration and violence led to serious social problems in the region, which have not been completely solved to this day (PBI 2012; Higuita 2018). The unforeseen migration process to the urban clusters was not projected. It exceeded the absorption capacities of the cities, given the lack of inadequate infrastructures to support their essential needs. Urban clusters somehow became concentrations of unplanned settlements. Illegal settlements started to emerge in protected areas and areas risking flooding, creating inequity and giving rise to high concentrations of poverty. These problematics were a disastrous force that affected the configuration of the urban form.

For almost 60 years, the region of Urabá was seen as a dominant productive area in Colombia. However, this productivity was achieved and concealing existing serious power differences and inequalities. As such, the region is a clear example of the (in)just city, which is constantly generating structures of power, leading to the generation of

uneven opportunities and (in)just distribution of resources, and supported by transport infrastructure and its planning.

Period 7: The post-conflict

After 40 years of confrontations, neither the Colombian government nor the guerrillas or paramilitary forces have achieved their objectives. The conflict transformed the economic dynamics of the country, particularly in the Urabá region. Currently the region is recovering from the wartime devastation. Violence has decreased dramatically in the last decade as the Colombian government and FARC, one of the biggest guerrillas, reached a comprehensive peace agreement after almost four years of peace negotiations (Herbolzheimer 2016).

As such, this seventh period can be defined as a post conflict stage. *La vía al mar* was an ambitious intervention to connect Medellín with the region of Urabá. It was also an answer to the needs and demand of industry and a crucial instrument in the territorial development strategy. However, in the context of rapid economic globalisation, this infrastructural network became insufficient mainly for agrarian extractivist

industries, contributing to the increase in traffic congestion specifically in urban areas and to excessive utilisation demand which is beyond the capacity of the road. The existing size of the road network was not adequate for the transport flows of the consolidated extractive industry (MT 2005). Moreover, this led to a huge reduction of speed, disrupting the transport dynamics of the territory. The urban areas quickly became a transit zone and connecting point between divergent local routes. More and more concentrations of informal commercial activities along the public space of the highway resulted in overcrowding of places.

Today, there is a sense of hope again for the inhabitants of Urabá (Higuaita 2018). The region is preparing for a process of globalisation, and an enormous boost of investment from new actors is stimulating change in the territory. The construction of a multipurpose port and logistic area in the municipality of Turbo has been proposed to the Port concession of Colombia and the National Infrastructure Agency (ANI). The French container transport and shipping company Terminal Link, partnered with PIO S.A. (Puertos, Inversiones y Obras S.A.), an experienced local developer of the Colombian Pacific coast.

The French firm would operate the port once it is built, as it is a globally operating company. This multipurpose port is expected to export and import large amounts of cargo, as it is located 40% closer (compared with other ports in the country) to the main production and consumption centres of the country (Bogota, Medellín, Coffee area, etc.). Additionally, thanks to the recent expansion of the Panama Canal (2016), which triples the size of ships that can travel the canal and allows hosting 98% of the world's shipping, Colombia will increase its commercial traffic and its shipping transport market. Therefore, the region is currently positioning for a huge process of globalisation and therefore, an extensive urban renewal (Fig. 8). *La vía al mar* is currently in a process of restoration and some new Structure Plans for the region have been conceived (URBAM 2014). The government is hoping for an economic growth between 15% and 20% over the next 3 or 4 years (Loaiza 2015). However, there is a growing concern about the impact of this enormous infrastructural project in the context of economic, social and urban development of the region. The fear is that the new foreign investments will lead to a new stage of extractivism, replicating the challenges, conflicts and injustices related to transport and

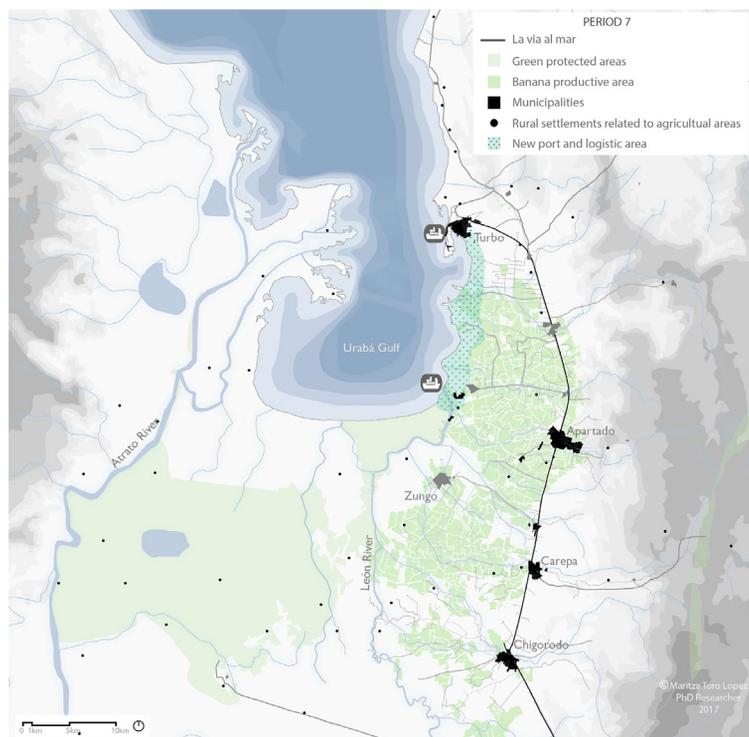


Fig. 8. Period 7: The post-conflict.
Source: own compilation.

urban development, given that the needs of local inhabitants have been consistently ignored, and on the contrary, much attention has been paid to the growth of the extractivist industries. As a response to these existing and expected (in)justices, new underground illegal activities have already been started to flourish in Urabá (Moreno 2018).

Current dynamics of transport and urbanisation and transport (in)justice in the overall agrarian extractivist regime in Urabá

Using the basic categories of extractivism mentioned above and based on Gudynas (2013) and McKay (2017), this final case study section summarises the socio-politics of transport (infrastructure) in the overall agrarian extractivist regime in the region of Urabá. Three interlinked scopes of this regime are explored: (1) large volumes of agricultural goods extracted and destined for export; (2) uneven urbanisation processes; and (3) extraction focused transport developments.

Large volumes of agricultural extracted goods destined for export

The first dimension of agrarian extractivism in the region of Urabá, concerns the volume of agricultural goods extracted and destined for export with little processing. The actual national productivity of banana in Colombia is low in comparison with other countries of Latin America such as Ecuador, Costa Rica and Guatemala. According to the National Administrative Department of Statistics (DANE), Colombia is the fifth world banana exporter, reaching a production of 98.4 million boxes in 2017 (DANE 2017). Banana is the third-most agricultural product exports from the country, coffee being the first with 7.8% (of the total export), flowers second with 4.0% and then banana with 3.1% (OEC 2014). Therefore, agricultural volumes of banana production are large relative to other agricultural exports of the country. In terms of processing, the banana is semi-processed, basically consisting of cutting, packaging and transporting the product for commercialisation.

The in-country processing can be identified as a value-added component of the production process which can positively impact sectoral articulation, creating employment through

inter-sectoral linkages (McKay 2017). However, the banana production does not require any important in-country processing. It is a manual process that starts from the cultivation, then harvesting and finally the selection of the product. With a highly organised and integrated process focused on economies of scale and low labour costs, it allows a competitive advantage in the export chain. Economically, banana production in the region generates 16,500 direct jobs and 49,500 indirect (Augura 2015), in a region that has 561,673 inhabitants within its most populated municipalities (Augura 2015).

The high volume of banana production, semi-processed and destined for export represents important challenges related to mobility, as freight transport is characterised by huge challenges related to traffic, congestion, road damage and a lack of safety for smaller modes of transport. For instance, in the municipality of Apartadó³ (Fig. 9), freight transport with large volumes of cargo transits through the congested urban centre, an area with a high density of construction and a mix of land uses (commercial, residential, administrative and industrial). Freight is carried by trucks which move on the same road infrastructure used by pedestrians, cyclists and local, public and regional vehicles. Consequently, this is threatening the development patterns of Apartadó, impacting negatively on the public space and the use of public transport. Especially the pedestrian movements are affected by the heavy traffic travels since there is not enough spatial capacity on urban areas for all modes of transport. Moreover, this overlapping of transport modes is contributing to high risks of accidents (according to the origin-destination survey made by the National University, 450 accidents were registered in the trajectory of *La vía al Mar* in Apartadó in 2017, see UNAL, 2018), congestion and environmental issues.

These complications and problems do not lead to favouring connection between municipalities, on the contrary, they cause separation and generate conflicts between them. The high volume of banana production, semi-processed and destined for export, represents specific industrial requirements that still need interventions in order to be defined as an efficient agrarian extractivism.

³ Apartadó is the principal municipality of the region of Urabá.



Fig. 9. Location of Apartadó within the region of Urabá.
Source: own compilation.

Uneven urbanisation processes

The second scope of agrarian extractivism in the region of Urabá concerns uneven urbanisation processes in the region. As banana extraction industries have stimulated an important migration process to the productive rural and urban lands, urban expansion has been evident. The urban population, especially migrant agricultural workers and temporary urban residents are commonly settling in 'illegal' constructions on urban peripheries. These places can be physically seen as rural villages or, as was mentioned above, 'edge cities' (Shannon, Smets 2010), sprawling migrant enclaves which lack urban infrastructure and services (Photo 1).

Uneven urbanisation processes are common in the region as there is an absence of linkages between other sectors of the economy which complement banana production, agricultural industrialisation and urbanisation. For instance, currently in the municipality of Apartadó there is no capacity to manage unexpected growth, and particularly unforeseen informal neighbourhoods which started to emerge in the periphery. Consequently, several temporary shelters were

constructed in protected and risk areas. The lack of proper sanitation, electricity, clean water supply and other basic services addressing human needs quickly became a critical challenge for the development of the municipality. Therefore, both the banana extractive industries and the government are short in providing enough social benefits, which presents undesirable consequences related to urban sprawl and violence.



Photo. 1. Informal urban settlements in the municipality of Apartadó.
Source: photo taken by the author.

Extraction focused transport developments

The third scope of agrarian extractivism in Urabá concerns the transport developments related to the agricultural extractive industries and the lack of support for local development. This refers to the transport infrastructures of the region, existing and under construction, mainly supporting extraction and thus characterised by the absence of infrastructures for pedestrians and permission to use for freight transport in city centres leading to an increase in the risk of pedestrian injury. This is a paradox, since the origin-destination survey made by the National University shows that pedestrians in Apartadó constitute the most used mode of transport (the walk is the most popular within the municipality) with 51%, followed by public transport with 18%, motorcycles with 17%, special transport with 6%, bicycles with 4% and private vehicles with 4% (UNAL, 2018). Therefore, all the main investments on infrastructure in the region are done for the 39% of the motorised transport systems (public transport, motorcycles and vehicles).

Pedestrian safety measures are claimed to be essential in transport planning as they improve walking environments and contribute to urban renewal, local development, social cohesion, improved air quality and reduction in the harmful effects of traffic noise (Committee on Injury, Violence 2009). However, in the region of Urabá, pedestrians and cyclists are not a priority. On the contrary, new transport infrastructures in the region are designed to prioritise freight transport in order to support the banana extractive

companies⁴ (Photos 2 and 3) (Toro López et al. 2020). For instance, the Pan-American highway or *Transversal de las Américas* is a huge national project in construction which involves a concession to design, build and maintain 446.5 km of roads at national level, and expand and rehabilitate 65 km of roads in the specific region of Urabá, converting the main corridor (*La vía al mar*) into a four-lane highway. The expected journey from Turbo to Medellín (capital of the region) will take four hours on average, while currently it takes more than six hours. The project also involves building 133 km of new highways and bridges. The main purpose of the network is to connect the banana area and the main municipalities along the region to the economic centre of the country, linking with future concessional highways of the centre. However, this project has been criticised on several occasions, since there is not a clear strategy proposed for the intersections on urban areas, and there is no clear information on sections along the corridor (Fig. 10). This analysis is fundamental in order to evaluate the potential impacts generated by the crossing of a fast corridor in each municipality. Besides, it is essential to ensure the efficiency of the corridor in terms of speed and accessibility (Jaramillo 2018).

The transport developments in the region of Urabá represent ideal infrastructures for the extractive agricultural industries. As such, they do not represent any support or benefit to local



Photo 2. Overlap of transport systems in the municipality of Apartadó.
Source: photo taken by the author.



Photo 3. Lack of infrastructure for pedestrians.
Source: photo taken by the author.

⁴ The most benefited corporations are the international trading companies Uniban and Banacol based in the region which are part of the banana association of Colombia (Augura).

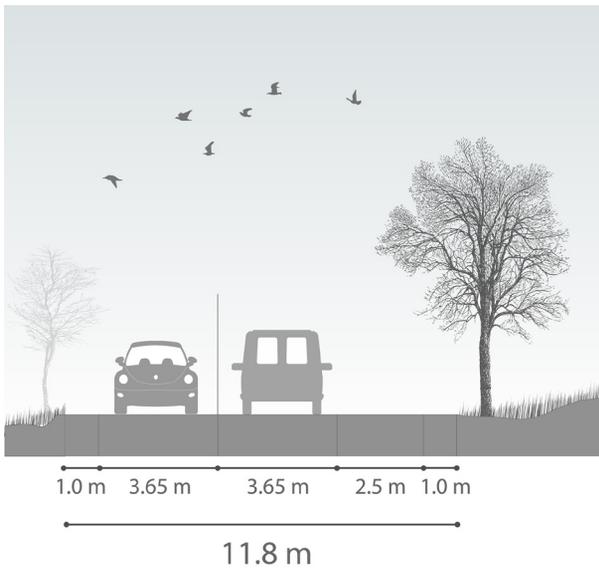


Fig. 10. Basic section of the proposed *Transversal de las Américas*. Lack of spaces for soft transport systems. Source: own compilation based on Agencia Nacional de Infraestructura (ANI) data.

developments. Infrastructures are planned based on the efficiency of freight fleets over pedestrians and bicyclists, which is debatable in urban contexts where walking and cycling are important modes of transport.

Conclusions

This paper aims to explore intercausalities in the dynamics of urbanisation and transport, the socio-politics of transport (infrastructure), to what extent and how transport (infrastructure) embodies specific forms of power and authority, and to what extent and how transport (in)justices are produced.

The paper starts by reviewing the debate on the causalities of transport (infrastructure) and urbanisation. It refers to the theory of technological politics to argue that these causalities are embedded in wider social, political, economic and cultural dynamics. The direction of these causalities therefore constitutes a non-discussion. Rather, the dynamics of actors and techno-political frames and their various dimensions, in which transport (infrastructure) and urbanisation are embedded, should be explored. The paper then turns to theories of urban and transport (in)justice as guiding in understanding the

way in which the interactions of transport and urban development are embedded within wider dynamics, produce social and transport (in) justice (or not). Lefebvre (1968), Harvey (1973) and Soja (2010) are important exponents on the debate on urban justice, questioning the fairness of cities, specifically the conflicts related to urban land use, planning and accessibility. They argue that cities are constantly generating structures of power leading to the generation of unequal opportunities and unjust distribution of resources. In order to complement the theoretical debate, the paper then explores the relationship between social justice and transport. Following Banister (1994), Cervero and Landis (1997), Vasconcellos (2001), Beyazit (2011), Gössling (2016) and Martens (2017), among others, the paper argues that transport-related infrastructures, investments, enhancements, financial resources, decision-making and politics, environmental aspects and risks, distribution of space and valuation of time, provide advantages for some actors, while at the same time, other actors have been excluded from these very transport and urbanisation dynamics. These advantages and exclusions become embedded in techno-political frames of transport infrastructure, produced by actors and relevant social groups, which provide an unequal distribution of accessibility and environmental and safety issues, unequal participation in activities offered by local authorities, unfairness in the physical distribution of goods, accessibility, distribution and affordability of all modes of transport, different exposure to traffic risks and pollutants, different distribution of space and different valuation of time.

To comprehend the current patterns of occupation related to transport (infrastructure) and mobility patterns and the production of transport (in)justices, the paper explores the dynamics of transport, urbanisation and (in)justice in the agrarian extractivist techno-political regime of Urabá in Colombia as a case study. This analysis was done to identify the milestones and events of the development of the urban morphology from a transport (in)justice perspective, and to understand how historical and recent transport infrastructures had supported extractivist industries. Based on this history, the paper found that the flourishing of the banana agrarian extractive industry and the concomitant infrastructures,

including the construction of *La vía al mar*, were the dominant factors conducive for the production and principles of a higher agrarian extractivist productivity of the land. Transport infrastructures also played a crucial and strategic role in territorial development strategies, specifically in opening up the region to the process of globalisation.

Moreover, urbanisation was linked to the construction of transport infrastructures and the agrarian extractivist boom, given that *La vía al mar* provided the basic structure for the future development of the region. Spatial, economic, social and urban processes interacted with this traffic infrastructure, leading to the first fundamental extension of the urban clusters and allowing rural clusters to settle uniformly on the expanded agrarian extractivist landscape. The transport infrastructures along the cities were attractive for business locations and as such became very dense and overcrowded, producing conflicts between agrarian extractivist traffic, local residents' traffic and urban activities/settlements in general. The historical analysis also exposed the impact of the armed conflict in the region, showed the effect of migration and the discontinuities on the dynamics and spatial configurations of the urban territory.

The historical transformation of the region shows how urban and transport planning were basically focused towards the functioning of agrarian extractivist industries in each period. This entails that transport systems in Urabá have been developed on the basis of specific industry interests, which is affected by various material, spatial, social, (geo)political and economic factors structuring this correlation. For instance, banana extraction industries have stimulated a quest for land and concomitant displacement and an important migration process to the productive rural and urban lands, leading to the establishment of sprawling migrant enclaves which lack urban infrastructure and even basic services. How *La vía al mar* helped to enhance the power of agrarian extractivist industries over local inhabitants is another example.

The paper has summarised the dynamics of transport and social (in)justice in the extractivist regime of the region of Urabá, by incorporating three interlinked dimensions of agrarian extractivism proposed by Gudynas (2013) and McKay

(2017): (1) large volumes of agricultural extracted goods destined for export; (2) uneven urbanisation processes; and (3) transport dynamics and (in)justice. The paper argues that the current practices and discourse of agrarian extractivism do not consider dimensions of urban development and transport even though they are inextricably linked. The production of transport (in)justice is therefore connected to challenges related to traffic congestion and safety in the region of Urabá, showing how the lack of improvement on mobility and recent transport infrastructures hinder people's abilities to participate in activities offered by the city and urban life in general.

From exploring the three interlinked scopes of the agrarian extractivist regime in the region of Urabá, it can be concluded that the actual agrarian extractive industries of the region, socio-politically analysed in their wider dynamics, explain the huge challenges related to the overlap of transport scales, congestion and risks of accidents in urban areas. They are affecting urban development, generating a high segregation characterised by uneven distributions of public services and transport infrastructures. As such, the existing transport developments are mainly conceived for the efficiency of extractive industries over local economic development. It can therefore be concluded that infrastructural developments in the region of Urabá in Colombia have supported agrarian extractivism at first in colonial times, but also more recently, showing the deep embeddedness of the relation between mobility and urbanity and the concomitant production of transport (in)justice in the development history of this region. This is also summarised in Table 1, showing the actors and relevant social groups, the elements of techno-political frames and transport injustices for the dominant extractivist regime and the systemic conflicts embedded in it. One could therefore argue that the focus of transport studies and planning should radically shift towards citizens and towards the contribution of the transport system to people's abilities to participate in urban life.

Acknowledgements

Funding: This work was supported by the Administrative Department of Science, Technology and Innovation COLCIENCIAS.

Author's contribution

Maritza Toro López: conceptualisation, methodology, formal analysis, investigation, resources, writing – original draft, visualization.

Pieter Van den Broeck: supervision, writing – reviewing and editing.

References

- Acosta A., 2013. Extractivism and neo extractivism: Two sides of the same curse. In: Lang M., Mokrani D. (eds), *Beyond development: Alternative visions from Latin America*. Transnational Institute, Amsterdam: 61–86.
- Agudelo L., 2011. La industria bananera y el inicio de los conflictos sociales del siglo XX | (The banana industry and the beginning of 20th century social conflicts). *Revista Credencial Historia*: 2–9.
- Akitoby B., Clements B., Gupta S., Inchauste G., 2006. Public spending, voracity, and Wagner's law in developing countries. *European Journal of Political Economy* 22: 908–924. DOI 10.1016/j.ejpolco.2005.12.001.
- Arboleda M., 2016. Spaces of extraction, metropolitan explosions: Planetary urbanization and the commodity boom in Latin America. *International Journal of Urban and Regional Research*, 40 (1) (2016), pp. 96–112
- Augura, 2015. *Coyuntura bananera 2015 (Banana juncture 2015)*. Asociación de bananeros de Colombia.
- Banister D., 1994. Equity and acceptability questions. In: Internalizing the social costs of transport. (ECONIS - Online Catalogue of the ZBW) OECD/ECMT, Paris: 153–175.
- Banister D., 2005. *Unsustainable transport: City transport in the 21st Century*. Routledge, London.
- Barfod A.S., 1989. The rise and fall of the vegetable ivory. *Principes* 33(4): 181–190.
- Barro R.J., 1990. Government spending in a simple model of endogenous growth. *Journal of Political Economy* 98: S103–S125. DOI 10.1086/261726.
- Barro R.J., Sala-I-Martin X., 1992. Convergence. *Journal of Political Economy* 100: 223–251. DOI 10.1086/261816.
- Barro R.J., Sala-I-Martin X., 1995. *Economic growth*. McGraw-Hill, New York.
- Berg M., 1998. The politics of technology: On bringing social theory into technological design. *Science* 23. DOI 10.1177/016224399802300406.
- Beyazit E., 2011. Evaluating social justice in transport: Lessons to be learned from the capability approach. *Transport Reviews* 31(1): 117–134. DOI 10.1080/01441647.2010.504900.
- Bleaney M., Gemmell N., Kneller R., 2001. Testing the endogenous growth model: Public expenditure, taxation, and growth over the long run. *Canadian Journal of Economics* 34(February): 36–57. DOI 10.1111/0008-4085.00061.
- Boarnet M.G., Crane R., 2001. *Travel by design: The influence of urban form on travel*. Oxford University Press, New York.
- Braumann V., Stadel C., 1999. Boom town in transition? Development process and urban structure of Ushuaia, Tierra Del Fuego, Argentina, January. Yearbook Conference of Latin Americanist Geographers 25: 33–44.
- Bretón V., Martínez J., 2017. Repensar lo agrario. Un compromiso permanente en Ecuador (Rethink the agrarian. A permanent commitment in Ecuador) Debate. *Ecuador Debate* 100(April): 61–74.
- Bucheli M., 2005. *Bananas and business: The United Fruit Company in Colombia, 1899–2000*. NYU Press, New York.
- Bullard R., Johnson G., Torres A., 2000. *Sprawl city: Race, politics, and planning in Atlanta*. Island Press, Washington, D.C.
- Bullard R., Johnson G.S., 1997. *Just transportation: Dismantling race and class barriers to mobility*. New Society Publishers, Gabriola Island, BC.
- Burchardt H.J., Dietz K., 2014. (Neo-)Extractivism – A new challenge for development theory from Latin America. *Third World Quarterly* 35(3), Routledge: 468–486.
- Cain L.P., 1997. Historical perspective on infrastructure and US economic development. *Regional Science and Urban Economics* 27: 117–138.
- Castilla C.E., 2001. El conflicto armado colombiano en los años noventa: cambios en las estrategias y efectos económicos (The Colombian armed conflict in the 1990s: Changes in economic strategies and effects). *Colombia Internacional* 49: 50.
- Cervero R., Landis J., 1997. Twenty years of the bay area rapid transit system: Land use and development impacts. *Transport Research* 31(4): 309–333.
- Church A., Frost M., Sullivan K., 2000. Transport and social exclusion in London. *Transport Policy* 7(3): 195–205.
- Committee on Injury, Violence, 2009. Pedestrian safety. *Pediatrics* 124(2): 802–812.
- Cresswell T., Merriman P., 2010. *Geographies of mobilities: Practices, spaces, subjects*. Taylor and Francis, Abingdon, Oxon.
- DANE, 2017. *Boletín técnico exportaciones – Diciembre 2017 (Exports technical bulletin – December 2017)*. Departamento Administrativo Nacional de Estadística, Colombia.
- De Block G., 2011. Designing the nation, The Belgian Railway Project, 1830–1837. *Technology and Culture* 52(4): 703–732. DOI 10.1353/tech.2011.0145.
- Decreto 2119, 1992. Por el cual se reestructura el Ministerio de Minas y Energía, el Instituto de Asuntos Nucleares, IAN y Minerales de Colombia S.A., MINERALCO. 29 January 1974.
- Decreto 2152, 1999. Por el cual modifica el Decreto 1141 de 1999. 04 Nov 1999. N. 43773. 8
- Decreto 520, 2003. Por el cual se dispone la disolución y liquidación de Carbones de Colombia S. A., Carbocol, Empresa Industrial y Comercial del Estado. 06 March 2003.
- Decreto 254, 2004. Por el cual se ordena la supresión, disolución y liquidación de la Empresa Nacional Minera Limitada, Minercol Ltda., Empresa Industrial y Comercial del Estado. 28 January 2004. N. 45445. 29
- Duarte C., 2012. Implementación y crisis del actual sistema de gobernabilidad minera en Colombia: el modelo de enclave exportador (Implementation and crisis of the current mining governance system in Colombia: The export enclave model). *Análisis político* 74 (January–April): 3–27.
- Fajardo D., 1983. *Haciendas, Campesinos y Políticas Agrarias en Colombia, 1920–1980 (Farms, peasants and agrarian policies in Colombia, 1920–1980)*. Oveja Negra, Bogotá.
- Galli R., 1978. Rural development as social control: International agencies and class struggle in the Colombian countryside. *Latin American Perspectives* 5(4): 71–89.
- Gilmore J., 1976. Boom towns may hinder energy resource development. *Science* 191: 535–540.
- Gladwin D., 2017. *Ecological exile: Spatial injustice and environmental humanities*. Routledge, Oxon.
- Göbel B., 2014. La Minería de Litio En Atacama: Disputas Sociales Alrededor de Un Nuevo Mineral Estratégico. Extractivismo Minero En Colombia y América Latina (Lithium mining in Atacama: Social disputes around a

- new strategic mineral. Mining extractivism in Colombia and Latin America).
- Gössling S., 2016. Urban transport justice. *Journal of Transport Geography* 54: 1–9. DOI 10.1016/j.jtrangeo.2016.05.002.
- Grajales J., 2011. The rifle and the title: Paramilitary violence, land grab and land control in Colombia. *Journal of Peasant Studies* 38(4): 771–792.
- Grigera J., Álvarez L., 2013. Extractivismo y acumulación por desposesión. Un análisis de las explicaciones sobre agronegocios, megaminería y territorio en la Argentina de la postconvertibilidad (Extractivism and accumulation by dispossession. An analysis of the explanations on agribusiness, mega-mining and territory in Argentina of post-convertibility). *Theomai* 27–28, 80–97.
- Gudynas E., 2013. Extracciones, extractivismos y extrahecciones (Extractions, extractivisms and extrahections). *Observatorio Del Desarrollo* 18: 1–18.
- Gwilliam K.M., 2002. Cities on the move: A World Bank urban transport strategy review (English). The World Bank, Washington, D.C. Online: <http://documents.worldbank.org/curated/en/928301468762905413/Cities-on-the-move-a-World-Bank-urban-transport-strategy-review> (accessed: 03 May 2020)
- Harvey D., 1973. *Social justice and the city*. University of Georgia Press. Online: www.jstor.org/stable/j.ctt46nm9v. (accessed: 21 April 2020)
- Harvey D., 2003. The right to the city. *International Journal of Urban and Regional Research* 27(4): 939–941.
- Harvey D., 2009. *Social justice and the city* (Revised ed.). University of Georgia Press, Athens.
- Herbolzheimer K., 2016. NOREF reports. Norwegian Peacebuilding resource center. Innovations in the Colombian peace process. Online: <https://ethz.ch/content/dam/ethz/special-interest/gess/cis/center-for-security-studies/resources/docs/0e5206132095b3f2bdb-7c3877690a538.pdf> (accessed: 22 April 2020)
- Higuaita F. (2018, April 22), personal interview.
- ICTJ International Center for Transitional Justice, 2009. An overview of conflict in Colombia.
- Jaramillo W., 2018. La ANI, reconoce denuncias de El pregonero del Darien (The ANI, recognised complaints of the Darien town crier). [Blog post]. Online: <https://el-pregonerodeldarien.blogspot.com/> (accessed: 19 March 2020)
- Lair E., 2000. Colombia: una guerra contra los civiles (Colombia: A war against civilians). *Colombia Internacional* 49: 50.
- Latour B., 1996. *Aramis, or the love of technology*. Harvard University Press, Cambridge, MA.
- Leck E., Bekhor S., Gat D., 2008. Equity impacts of transportation improvements on core and peripheral cities. *Journal of Transport and Land Use* 2(1): 153–182.
- Lefebvre H., 1968. *Le droit à la ville* (The right to the city) (2nd ed.). Paris, France: Anthropos.
- Lefebvre H., 1996. The right to the city. In: Kofman E., Lebas E. (eds), *Writings on cities*. Blackwell, Oxford: 63–184.
- Lefebvre H., 2009c [1980]. Space and mode of production. In: Brenner N., Elden S. (eds), *Henri Lefebvre: State, space, world*. University of Minnesota Press, Minneapolis, MN: 167–223.
- Ley 20, 1969. Legislación Colombiana. Derechos sobre Minas (Colombian Legislation. Mine rights).
- Ley 1530, 2012. Por la cual se regula la organización y el funcionamiento del Sistema General de Regalías. 17 May 2012.
- Leyva P. (ed.), 1993. *Colombia Pacífico (Colombia Pacific)*. Bogotá: Fondo para la Protección del Medio Ambiente José Celestino Mutis.
- Loaiza J.F., 2015. Urabá espera un crecimiento económico del 15% en los próximos 5 años (Urabá expects an economic growth of 15% in the next 5 years.). *El Colombiano*.
- Lucas K., 2005. Providing transport for social inclusion within a framework for environmental justice in the UK. *Transportation Research A* 40: 801–809.
- Lucas K., Grosvenor T., Simpson R., 2001. *Transport, the environment and social exclusion*. York Publishing Services, York.
- Maparu T.S., Mazumder T.N., 2017. Transport infrastructure, economic development and urbanization in India (1990–2011): Is there any causal relationship? *Transportation Research Part A: Policy and Practice*, 100(C): 319–336. DOI 10.1016/j.tra.2017.04.033.
- Martens K., 2017. Seeking transportation justice. *Transport Justice: Designing Fair Transportation Systems*, 17.
- Martín F., 2017. Reimagining extractivism: Insights from spatial theory. In: Engels B., Dietz K. (eds), *Contested extractivism, society and the state, development, justice and citizenship*. Springer Nature, London, United Kingdom: 21–44. DOI 10.1057/978-1-137-58811-1_2.
- McKay B., 2017. Agrarian extractivism in Bolivia. *World Development* 97: 199–211.
- Merrifield A., 2014. Whither urban studies? In: Brenner N. (ed.), *Implosions/explosions: Towards a study of planetary urbanization*. Jovis, Berlin: 386–393.
- Mitchell R., Rapkin C., 1954. *Urban traffic: A function of land use*. Columbia University Press, New York. DOI 10.1002/ncr.4110431114.
- Mol A., Mesman J., 1996. Neonatal food and the politics of theory: Some questions of method. *Social Studies of Science* 26(2), 419–444. DOI 10.1177/030631296026002009.
- Mol H., 2017. *The politics of palm oil harm: A green criminological perspective*. Palgrave, London.
- Moreno I. (2018, April 22), personal interview.
- Morón J., 2000. Las exportaciones Colombianas de banano, 1950–1998 (Colombian banana exports, 1950–1998). Documentos de trabajo sobre economía regional. Banco de la Republica, Cartagena.
- Moulaert F., Rodrigues A., Swyngedouw E., 2003. *The globalized city. Economic restructuring and social polarization in European cities*. Oxford University Press, Oxford.
- MT., Ministerio de transporte de Colombia, 2005. Caracterización del Transporte en Colombia, Diagnostico y Proyectos de Transporte e Infraestructura Bogotá, D.C (Characterisation of transport in Colombia, diagnosis and projects of transport and infrastructure Bogotá, D.C). Febrero de 2005.
- Munck R., Wise R., 2018. *Reframing Latin American development*. Routledge, London. DOI 10.4324/9781315170084.
- OECD, 2014. Exportaciones Colombianas (Colombian exports). The observatory of economic complexity. Transporte e Infraestructura, Bogotá.
- Ortega J.E.E.C., Vidal A., 2010. *Ciudades portuarias en la Gran Cuenca del Caribe: Visión histórica* (Port cities in the greater Caribbean Basin: Historical overview), Universidad del Norte, Barranquilla.
- Osorio J., 2006. *Pueblos itinerantes de Urabá, La historia de las exclusiones Retrato* (Itinerant towns of Urabá, The history of exclusions portrait), Universidad Internacional de Andalucía.

- Parsons J.J., Evans V.C., 1996. *Urabá, salida de Antioquia al mar: Geografía e historia de su colonización* (Urabá, Antioquia's exit to the sea: Geography and history of its colonisation), Banco de la República, Bogotá.
- PBI, 2012. Construyendo la paz en espacios exclusivos de población civil: Experiencias del Urabá (Building peace in exclusive spaces for the civilian population: Urabá experiences). Peace Brigades International. Online: <http://www.pbicolombia.org/>. (accessed: 25 April 2020)
- Petras J., Veltmeyer H., 2014. Agro-extractivism: The agrarian question of the 21st century. In: *Extractive imperialism in the Americas*. BRILL, Leiden, The Netherlands: 62–101.
- Picon A., 2018. Urban infrastructure, imagination and politics: From the networked metropolis to the smart city. *International Journal of Urban and Regional Research*, February. DOI 10.1111/1468-2427.12527.
- Portafolio, 2010. El sector agropecuario desde 1810 (The agricultural sector since 1810). Online: <https://www.portafolio.co/economia/finanzas/sector-agropecuario-1810-183156> o. (accessed: 03 May 2020)
- Putnam R.D., 2000. *Bowling alone: The collapse and revival of American community*. Simon and Schuster, New York.
- Rajé F., Grieco M., Hine J., Preston J., 2004. *Transport, demand management and social inclusion: The need for ethnic perspectives*. Ashgate, Aldershot.
- Rodrigue C.C., Slack B., 2017. *The geography of transport systems*. Routledge, Taylor & Francis Group, London, New York.
- Romer P.M., 1994. The origins of endogenous growth. *The Journal of Economic Perspectives* 8: 3–22. DOI 10.1257/jep.8.1.3.
- Saab B., Taylor A., 2009. Criminality and armed groups: A comparative study of FARC and paramilitary groups in Colombia. *Studies in Conflict & Terrorism* 32(6): 455–475.
- Sánchez T.W., Stolz R., Ma J.S., 2003. *Moving to equity: Addressing inequitable effects of transportation policies on minorities*. The Civil Rights Project at Harvard University, Cambridge, MA.
- Shannon K., Smets M., 2010. *The landscape of contemporary infrastructure*. NAi Publishers, Rotterdam.
- Soja W.E., 2008. *The city and spatial justice*. In: Spatial Justice, Nanterre, Paris, March 12–14, 2008. Online: <http://www.jssj.org/archives/01/05.php#b> (accessed: 28 March 2020)
- Soja W.E., 2010. *Seeking spatial justice*. University of Minnesota Press, Minneapolis.
- Susskind L., O'Hare M., 1977. *Managing the social and economic impacts of energy development*. Massachusetts Institute of Technology, Laboratory of Architecture and Planning, Cambridge.
- Swyngedouw E., Heynen N., 2003. Urban political ecology, justice and the politics of scale. *Antipode* 35(5): 898–918. DOI 10.1111/j.1467-8330.2003.00364.x.
- Swyngedouw E., Moulaert F., Rodrigues A., 2004. Neoliberal urbanization in Europe. Large-scale urban development projects and the new urban policy. *Antidote* 34: 542–577.
- Thomson F., 2011. The agrarian question and violence in Colombia. *Conflict and Development* 11(3): 321–356.
- Toro López M., Scheers J., Van den Broeck P., 2020. The socio-politics of the urbanization – Transportation nexus: Infrastructural projects in the department of Antioquia in Colombia through the lens of technological politics and institutional dynamics. *International Planning Studies*. DOI: 10.1080/13563475.2020.1850238.
- Tovar H., 2001. Emigración y éxodo en la historia de Colombia (Emigration and exodus in the history of Colombia), en *América Latina: Histoire et Mémoire – Les chiers ALHIM, Migration en Colombie*, n.3. Online: <http://alhim.revues.org/document522.html> (accessed: 15 April 2020).
- UN, 1993. *Transnational corporations and the exploitation of natural resources*, Vol. 10. In: Mckern B. (ed.), Routledge, New York.
- UNAL, 2018. *Origin – Destination survey 2018 municipality of Apartadó*. Universidad Nacional de Colombia.
- URBAM, 2014. *Planes Municipales Integrales para Urabá: Proyectos y estrategias urbanas y ambientales para el polo de desarrollo Regional* (Integral Municipal Plans for Urabá: Urban and environmental strategies and projects for Regional development), Universidad EAFIT, Medellín.
- Van den Broeck P., 2011. Analysing social innovation through planning instruments: A strategic relational approach. In: Oosterlynck S., Van den Broeck J., Albrechts L., et al. (eds), *Strategic spatial projects: Catalysts for change* (Chapter 4). Routledge, London, New York: 52–78.
- Vasconcellos E.A., 2001. Urban transport environment and equity: The case for developing countries. (1st e.). Routledge. DOI 10.4324/9781315071756
- Vélez-Torres I., Ruiz-Torres G., 2015. Extractivismo Neoliberal Minero y Conflictos Socio-Ambientales En Perú y Colombia (Neoliberal mining extractivism and socio-environmental conflicts in Peru and Colombia). *Ambiente y Sostenibilidad* 2015(5): 3–15.
- Wagner A., 1958. Three extracts on public finance. In: Musgrave R.A., Peacock A.T. (eds), *Classics in the theory of public finance*. Macmillan, London. DOI 10.1007/978-1-349-23426-4_1.
- Wagner R.E., Weber W.E., 1977. Wagner's law, fiscal institutions and the growth of government. *National Tax Journal* 30: 59–68.
- Winner L., 1980. Do artifacts have politics? *Daedalus* 109(1): 121–136. DOI 10.4324/9781315259697-21.
- Winner L., 1986. *The whale and the reactor: A search for limits in an age of high technology*. University of Chicago Press, Chicago.
- Winner L., 1992. Citizen virtues in a technological order. *Inquiry* 35(3–4): 341–361. DOI 10.1080/00201749208602298.
- Zamosc L., 1986. *The agrarian question and the peasant movement in Colombia: Struggles of the National Peasant Association, 1967–1981* (Cambridge Latin American Studies). Cambridge University.
- Zeller T., 2014. Histories of transport, mobility and environment. *The Journal of Transport History* 35(2): 3–III, IV, V.