

City Unplanning: The Techno-Political Economy of Privately-Financed
Highways in Lima

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Submitted in partial fulfillment of the
requirements for the degree of
Doctor of Philosophy
under the Executive Committee
of the Graduate School of Arts and Sciences

COLUMBIA UNIVERSITY

2019

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ABSTRACT

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Since 2009 the Metropolitan Municipality of Lima has partnered with private corporations to deliver three highway projects worth US\$1.5bn. This process follows a state-building strategy developed since the 1990s to allow different levels of government to deliver infrastructure projects with private finance. In Lima, the model has almost exclusively produced highways through a specific scheme that allows firms to submit unsolicited proposals. In this dissertation, I investigate how the availability of private finance transforms the political process and local planning outcomes. I argue that rather than being simply a solution for cash-strapped governments looking to invest in specific pieces of infrastructure, the introduction of private finance shapes what projects get built. Private finance not only transforms the implementation part of a two-step process: it has a deep impact on the planning phase itself by setting constraints on what can be done and to what ends. I call the specific mechanism by which private finance influences planning ‘unplanning.’ Here, the state is not simply retreating to let the private sector determine priorities. In other words, it is not abandoning planning, or simply not planning. Rather, it is being transformed in order to follow a proactive role in attracting investment, and to adapt planning to the needs of private capital. The dissertation goes beyond understandings of infrastructures as neutral conduits and into their techno-political nature in order to reveal how they reflect, reproduce and become both the conduit and the site of political conflicts between private capital, the state, and urban dwellers.

TABLE OF CONTENTS

List of Abbreviations	ii
List of Tables and Figures	iii
Acknowledgements	iv
Chapter 1: Introduction.....	1
Chapter 2: Transport Infrastructure and Urbanization in Lima, 1900-2008.....	30
Chapter 3: The Political Economy of City Unplanning	85
Chapter 4: Techno-Politics of Automobility	156
Chapter 5: Conflicts Over Urban Space and Mobility	208
Chapter 6: Conclusions.....	252
References	262
Appendix	282

List of Abbreviations

Ademirr	Association for the Defense of the Left Bank of the Rímac River
Adepsep	Association of Private Firms for Public Services
AFIN	Association for the Promotion of National Infrastructure
Asovecmirr	Left Bank of the Rímac River Neighborhood Association
BRT	Bus Rapid Transit
COOPI	Cooperazione Internazionale (Italian International Aid Agency)
CNV	National Housing Corporation
EMAPE	Municipal Company for Toll Management
GPIP	Agency for the Promotion of Private Investment (Lima)
GyM	Graña y Montero
IMP	Metropolitan Planning Institute
INEI	National Institute of Statistics and Informatics
Lamsac	Línea Amarilla SAC (SPV for the Yellow Line)
MIRR	Margen Izquierda del Río Rímac (Left Bank of the Rímac River)
MML	Metropolitan Municipality of Lima
ONPU	National Office for Planning and Urbanism
PPP	Public-Private Partnership
Proinversión	Agency for the Promotion of Private Investment (National)
SPV	Special Purpose Vehicle
SRZ	Special Regulatory Zone/Zoning
UDEAL	Lima Architecture Students Association

List of Tables and Figures

Tables

Table 1. Population and density of the Lima urban area (1876-2017).	31
Table 2. Characteristics of the three projects.....	90
Table 3. Project shortlists.....	120

Figures

Figure 1. Lima in 1908.....	34
Figure 2. Ring road proposed in 1949	44
Figure 3. Lima in 1947.....	46
Figure 4. The street in Plan Regulador (1954).....	49
Figure 5. Arterial system in Plan Piloto (1949).	52
Figure 6. Road system in Plan Regulador (1954).	53
Figure 7. El Comercio Gráfico, June 11th 1967. ‘Express to death for the reckless.’	64
Figure 8. Brasil, Arequipa and Paseo de la República roads.	66
Figure 9. Residents of Villa El Salvador push a bus out of the sand (1971).	70
Figure 10. The three highway projects.	91
Figure 11. Metropolitan Road System in 2011 and 2016.	115
Figure 12. Map of Lima: Port, Airport, Downtown (Historic Center).	164
Figure 13. Lima by income brackets at the block level (2013).	165
Figure 14. Proposal for deconcentrating activities. 1992 Metropolitan Plan, p. 91.	166
Figure 15. Flyer from a road safety campaign done by the Peruvian government, 2008.....	192
Figure 16. Brochure published by the Villarán administration.....	203
Figure 17. Map showing the location of Margen Izquierda del Río Rímac (MIRR).....	211
Figure 18. Street in Primero de Mayo.....	214
Figure 19. Location of neighborhoods affected by the Yellow Line.....	215
Figure 20. Map of all neighborhood organizations in the MIRR.	216
Figure 21. Original and modified route of the Yellow Line.	228
Figure 22. Map showing northern section of New Roads of Lima.....	243

Acknowledgements

I would like to thank my supervisor, Dr. Elliott Selar, for his guidance, rigorous comments and encouragement throughout the process of researching and writing this dissertation. I am grateful to Dr. Robert Beauregard for his guidance, and for his comments that were product of incredibly close readings of my drafts. I also want to thank the other members of my committee, Dr. Antina von Schnitzler, Dr. Enrique R. Silva and Dr. Malo Hutson, for their constructive feedback.

Many people at the Graduate School of Architecture, Planning and Preservation and other departments at Columbia have been helpful during the years I spent there. I want to thank specially Dr. Clara Irazábal, Dr. Weiping Wu, Dr. Timothy Mitchell and Dr. Josh Whitford for conversations that broadened my views of the topic I was studying. I also found support and intellectual stimulation among my colleagues at the Ph.D. program, including: Jonathan English, Siobhan Watson, Maiko Nishi, José Antonio Ramírez, Amanda Bradshaw, Adele Cassola, Jonas Hagen, Eric Goldwyn, Lauren Ames Fischer, Jigar Bhatt, Valerie Stahl, Deepa Mehta, Bernadette Baird-Zars, Elizabeth Marcello, Rosalie Ray, Jenna Dublin, and Cathy Hyun Hye Bae. I want to thank Adrián Lerner, Óscar Sosa López and Stephan Gruber who read parts of my draft and offered helpful feedback.

My project would not have been possible with the funding I received from GSAPP. I also received a travel grant from the Institute of Latin American Studies that allowed me to conduct pre-dissertation research.

It would not have been possible either without the time offered by the people I interviewed or otherwise discussed my project with in Lima. For this, I am grateful to Miguel Prialé, Gustavo Guerra-García, Francisco Bocángel, Álvaro Espinoza, Augusto Rey, Daniel Ramírez Corzo, Teresa Cabrera, Jenny Rubio, Juan Tapia, Carlos Chacón, Cecilia Balcázar, Mariana Alegre, Cynthia Yamamoto, Daniel Graña, Pierre Nalvarte, Germán Alarco, Alonso

Segura, Quentin Marchand, Patricia Pella, Pablo Vega-Centeno, Martín Monsalve, José Carlos Orihuela and all the other interviewees whose names I have not disclosed. I would also like to thank the residents and activists that are a source of inspiration for those of us who want to transform Lima into a more just and equitable city.

I want to thank my parents, Enrique and Marisol, and my brothers, Kike, Milenka and Lucas, for their encouragement.

I am grateful to María Gracia Ríos for her incredible amount of support, encouragement and intellectual stimulation during all these years. And finally, I thank Emilio because his smiles and endless joy at the end of every day of work were the best possible motivation to keep on going.

Para María Gracia y Emilio

Chapter 1: Introduction

Between 2009 and 2013, the metropolitan government of Lima approved three public-private partnerships (PPP) worth USD1.52bn for the construction of over 30 kilometers of new highways and the transfer of over 110 kilometers of existing highways to private consortia. The process has followed a state-building strategy developed since the 1990s and readjusted in the late 2000s to allow all levels of government to deliver infrastructure projects with private finance. In Lima, the model has almost exclusively produced highways through a specific mode of private finance called ‘private initiative,’ which allows firms to submit unsolicited proposals. While Lima has built urban highways in the past, the scale at which they are being built now is unprecedented.

What does this process tell us about what happens when urban planning intersects with the capacity to build infrastructure with private finance? In this dissertation, I will show that the availability of private finance has the potential to shape planning and infrastructure priorities. Rather than being an efficiency-enhancing alternative to public procurement, as PPP textbooks would suggest, or simply a solution for cash-strapped governments to deliver planned infrastructure works, the introduction of private finance influences which projects get built. Private finance not only transforms the implementation phase of a two-step process—planning followed by implementation. Instead, by setting constraints on what can be done and to what ends, it has a deep impact on the planning process itself.

I call the specific mechanism by which private finance influences planning ‘unplanning.’ Here, the state is not simply retreating to let the private sector determine priorities. In other words, it is not abandoning planning, or simply not planning. Rather, it is being transformed in order to follow a proactive role in attracting investment. This role is characterized by three aspects. First, the local government often dismantles existing planning decisions in order to pave the way for privately-financed projects. Second, it takes on an

entrepreneurial role in seeking investors willing to bring their capital to the city. And third, it assumes risks and/or transfers existing revenue streams in order to make projects financially attractive. The way in which the government intervenes in this process shows that it is *actively unplanning* rather than simply *not planning*.

While the scale at which highways are being built in Lima is unprecedented, the prioritization of automobile-oriented infrastructure is not. In fact, characterizations of the city, its problems, and its solutions were the backdrop and the justification for these projects to be approved. These conceptions were based on a depoliticized understanding of transportation problems and their possible solutions. Congestion in Lima has been constructed as the consequence of a lack of road capacity and the regulatory failures that have produced a chaotic public transit system. By reproducing such framing public officials justified large investments in roads while reserving low-cost regulatory approaches for transit. These discourses left untouched the issue of who has a right to urban space and the unequal transportation outcomes produced by a sharply uneven distribution of the public space dedicated to urban mobility.

Mobilizations that took place in response to the projects, however, revealed the deeply political nature of transportation planning and infrastructure delivery while forcing decision-makers to respond to them. In particular, two issues that were largely overlooked when approving the projects came to the fore. First, the fact that, by building highways through consolidated low-income neighborhoods, the process has resurfaced old conflicts over the right to housing. And second, that sudden increases in the cost of mobility brought by the introduction of new tolls have led to pluri-class protests around the right to access the city. The response to city unplanning, then, has been the return of old conflicts and the rise of new challenges.

1.1. Literature review

1.1.1. Planning and governance

Planning paradigms have changed globally since the height of modernist planning in the mid-twentieth century. In the past five decades, urban planning shifted from a high modernist approach to fragmented practices that saw the rise of non-state actors. According to the high modernist paradigm, the ideal was to follow a state-centered, top-down practice based on technical rationality (Banfield 1985 [1959]). Following the principles of modernist planning, city life could be broken down into separate functions: housing, work, recreation, traffic, and public-civic life (Holston 1989, 31). Thus, the city would have to be planned in a comprehensive way, that is, considering every aspect and every space of it, with zoning as one of its main tools and the state as the key actor in regulating the city. Furthermore, these regulations were seen as deriving from a 'neutral' technical rationality (Sandercock 2003). In that model, ideally, the provision of infrastructure was centralized (Graham and Marvin 2001). In sum, planning was regarded as a tool of social change that should be carried out first and foremost by a state in charge of regulating private activity and without much space for public participation (Caldeira 2008).

In the 1970s and 1980s, different forces came to destabilize the modernist paradigm (Beauregard 1984). On the one hand, social movements demanded more participation in the planning process. As a response, new configurations in local government allowed for more democratic processes. Planning interventions began including popular participation and bottom-up approaches (Caldeira and Holston 2007). On the other hand, neoliberals questioned the role of the national state in driving development (Lal 2000; Peet and Hartwick 2009, 84–87). Reconfigurations in the relationship between the state and private capital also affected planning. Instead of regulating private action and providing basic services, new approaches to governance called for the state to create the conditions for private investment

to thrive (Mattos 2011), in a shift that David Harvey (1989) has characterized as a transition from a managerial to an entrepreneurial mode of state operation. Under the 'entrepreneurial' model, one of the central roles of local governments is to create places and opportunities for private investment and profit accumulation in order to improve cities' opportunities for attracting scarce private capital in a context of intense interurban competition (D. Harvey 1989, 4–5). The entrepreneurial role of the state is key to understand unplanning, as it implies the transformation of the state in order to actively seek private investment. Furthermore, this role requires the reframing of participation as a space for private corporations and investors to contribute their decentralized knowledge (cf. Hayek 1945) rather than citizens engaging in a meaningful way.

This transition from centralized planning to decentralized modes of governing that include new actors has produced what has been called governance (Mattos 2011), or governance beyond the state (Swyngedouw 2005). The transformation, however, has not been universal or linear. For instance, Vanessa Watson (Watson 2009, 2260) argues that in 'Southern' cities comprehensive planning has not been completely abandoned and visions of urban modernism are still the norm. The apparent shift, she argues, is rooted in the fact that current comprehensive approaches are more flexible. They might still be comprehensive and still techno-managerial, but what is new is the introduction of market logics in administering government and providing services. Under banners such as 'good governance' (Li 2007, 240) and through the call for introducing market-based solutions to social problems, the conceptualization of the role of urban planning has changed. It can still be comprehensive while incorporating market mechanisms to provide services that were previously under the hand of the state or that did not exist.

1.1.2. Public-Private Partnerships and infrastructure

Among the most representative practices of a marketized way of planning are public-private partnerships (PPP). Public-private partnerships are often used to develop megaprojects and urban regeneration schemes in specific areas of the city, as opposed to comprehensive plans (Lehrer and Laidley 2008; Orueta and Fainstein 2008; Flyvbjerg, Bruzelius, and Rothengatter 2003). In the last three decades, several countries have created new institutional arrangements that allow private corporations to take care of the entire process of building and operating infrastructure and services that were previously understood to be under the control of states. In the United Kingdom, the first Private Finance Initiatives were carried out in the 1990s (Ball, Heafey, and King 2001) and countries across the globe have been translating and replicating the scheme since. The writers of the 2008 Peruvian PPP legal framework cite the UK, as well as Chile and Colombia, as models to learn from.¹

PPPs are different from full-blown privatization in that the state often retains the ownership of the asset, which is temporarily transferred to a private partner under a long-term contract. While privatized enterprises might be regulated by the government through an independent body, a PPP adds a layer of regulation by inscribing all the conditions under which the service should be provided in a long contractual agreement between a state entity and a private consortium. This also differentiates a PPP from traditional public procurement. Rather than the government opening a bidding process for firms to compete to build a piece of infrastructure, PPPs bundle construction with maintenance and operation. The private party is also often in charge of financing the project, as opposed to publicly-financed traditional procurement. A PPP that consists in the construction, maintenance and operation of a piece of infrastructure that after a long-term period is returned to the government is called ‘built-operate-transfer (BOT)’. All three PPPs covered in this dissertation are BOT.

There are diverse reasons for implementing PPPs. Among them are standard

¹ Exposición de motivos, DL 1012.

assumptions about the benefits of introducing market mechanisms, such as efficiency and cost cutting (Engel, Fischer, and Galetovic 2014, 13–15). ‘Value for money’ was one of the main arguments for implementing PPPs in the UK (Terry 1996; Ball, Heafey, and King 2001; Bing et al. 2005). Another reason is that by using private finance one can carry out much needed investments while transferring the risk to the private sector and keeping ‘costs off the balance sheet’ (Froud 2003; Engel, Fischer, and Galetovic 2014, 12). But those are not the only arguments for doing PPPs for infrastructure and, in some geographies, not the most common either. In Spain, one of the main reasons was that private finance would make funds available where public resources were scarce (Acerete, Shaoul, and Stafford 2009). A further reason is that, by bringing the discipline of the market into infrastructure planning, one can prevent ‘white elephants’ as projects that are not worth building would simply not be built (Albaladejo 2014; Engel, Fischer, and Galetovic 2014, 9). By shifting it from the state to the private sector, some have argued that infrastructure provision can be taken off the political agenda (Gómez-Ibáñez and Meyer 1993, 4). The usefulness of market mechanisms was particularly relevant for transportation, as economists have argued that by getting the price of transport right we could achieve more efficient outcomes (Meyer 1965; Gómez-Ibáñez 2011).

As several authors have argued, however, the idea that infrastructure construction can be depoliticized is naïve (Winner 1980; McFarlane and Rutherford 2008). First, the very nature of infrastructure is and has always been political for a number of reasons. Infrastructure can be used to connect or disconnect particular populations by assigning particular uses to public space, or the commons. Second, markets by definition exclude those who cannot pay. Thus, the introduction of market logics in the provision of infrastructure will most certainly exclude or punish the poorest sectors of the population. Pareto efficiency, it turns out, is not politically neutral nor value free. And third, the specific ways in which regimes of infrastructure provision are created and transformed are part of political processes

in which often capitalists take a central role. Rather than playing by the rules written independently by the state, firms are often entangled with states in the rule-making process (Henisz, Zelner, and Guillén 2005; Siemiatycki 2013; Birch and Siemiatycki 2015). Arguing that infrastructure provision can be depoliticized is itself a political statement.

Critics of PPPs argue that its implementation often underestimates its problems, which are several. First, a PPP implies incomplete contracting: even the best written contract cannot consider all the possible scenarios that might play out in the long-term period that the PPP will cover. The need for constant renegotiations that this incompleteness entails means added costs to initial estimates (E. Sclar 2015; J. Luis Guasch and Straub 2009; Estache, Trujillo, and Guasch 2007). Second, it is not necessarily true that risk is transferred to the private sector. Even when contracts stipulate the transfer of risk, if basic public services are in place, bankruptcy damages not only the firm that took the initial risk, but the larger public that depends on the service. In the end, that responsibility might fall on the state even when the contract does not say so (E. Sclar 2015; Albalade, Bel, and Bel-Piñana 2015; Acerete, Shaoul, and Stafford 2009; Siemiatycki and Farooqi 2012). When pension funds finance infrastructure, the risk is two-fold, as the bankruptcy of the concession would entail the loss of social security benefits for a large portion of the population. A third issue is the inconsistency between the public interest and the private interest of firms seeking profits. It has been argued that, given both this disagreement and the dependence on private financing, PPPs are often more effective at achieving private than public interests (E. Sclar 2015; F. Mirafteb 2004). This is often aggravated by the asymmetry of information between government and private sector negotiators, an issue that tends to be worse when the local government is involved due to its even more limited capacity (Dannin 2011; Beard, Mirafteb, and Silver 2008; Ashton, Doussard, and Weber 2016). Furthermore, by requiring certain aspects to be hidden from the public in order to protect intellectual property, PPPs can be

used as a way to exclude participation (Siemiatycki 2007). In some cases, as I will show in this dissertation in the case of unsolicited bids, PPPs can displace the meaning of participation from being citizen-based to being capital-based. A fourth issue is that, by bringing market logics to the provision of infrastructure, PPPs have the potential to deepen processes of uneven development, as the areas or uses that get more investment will often be those that can provide an acceptable financial return (Siemiatycki 2011). This leads to another issue: financialization.

Along with the unbundling of infrastructural networks, financial capital is playing a central role in the provision of infrastructure. If during the height of the monopolistic ideal it can be argued that infrastructural networks were the support that capital needed to circulate, we should ask whether today it is infrastructure provision itself that has become a central conduit for capital accumulation (Knight and Sharma 2015). In other words, have we moved from a moment where infrastructure was built mainly to support other forms of capital accumulation, to one in which infrastructure provision has as one of its main goals to allow for investors to secure safe returns through long-term concession contracts for providing it? If this is so, then one of the new roles of the state is to allow for capital accumulation by setting the conditions for private capital to deliver infrastructure while contractually protecting their investments. With financialization, infrastructure becomes a traded product, which can be owned by investment funds in remote places (Torrance 2008). This process not only displaces governance from the state, but inserts it within global networks of finance and power.

While the process of financialization certainly can be identified, it is hard to know its extent and, especially, in exactly what terms it is different than previous ways of financing infrastructure, which of course also needed loans and allowed capital to reproduce. Some authors define the financialization of infrastructure as the process by which infrastructure is governed and managed as a financial product by a financial institution. An investment group

becomes the developer and manages infrastructure prioritizing purely financial criteria (Torrance 2008; Ashton, Doussard, and Weber 2012). Infrastructure that is privately built but where finance and construction are not in the hands of the same organization would not fall into this definition. Another, less strict definition, is that with financialization private investment funds have undue influence in the construction and management of infrastructure, even when that influence is indirect: it is the power of investment funds that largely explains what pieces of infrastructures get built (O'Neill 2013). There are also cases where 'finance leads planning.' Here, it is not only about private investment funds, but the availability of resources and the interests of those who make those funds available that drives what infrastructure gets built, whether they are public or private. An example of this way of looking at the process is given by Brian Taylor (2000) on federal funds for highways in California: he argues that federal highway funding meant that federal needs were prioritized over those of cities. While it might not be helpful to call this financialization –infrastructure must always be financed somehow– being aware of the impact of the source of funds is important to understand the relationship between finance and outcome.

1.1.3. Transportation and Development

Planning, like other forms of development practice, depends upon the 'rendering technical' of otherwise politically and socially complex problems (Li 2007; Ferguson 1994; T. Mitchell 2002). Issues that involve subjects, interests, and power are abstracted into problems that can be solved through technical means. These abstractions are needed in order to make prescriptions. Two abstractions in particular often serve as premises for implementing solutions.

The first one is the creation of an 'object' to be intervened, developed (T. Mitchell 2002). There is a need, then, to create an abstraction of the place that needs intervention. In

this exercise, development practitioners see the object from the outside. As critics have argued, rather than engaging with a place or a society in its full complexity, development practice depoliticizes it in order to render it technical (Li 2007). This is what James Ferguson has referred to as the ‘anti-politics machine,’ ‘the suspension of politics from even the most sensitive political operations.’ (1994, 256). By weaving out complexity and by depoliticizing its object, this type of development discourse is able to assume that any infrastructure investment can only be beneficial.

This depoliticization is not new. In fact, the rise of a planning mentality is based on the premise of improvement through solutions proposed by a technical rationality. The rational-comprehensive planning model requires the ends to be isolated in order to find which means are the most suitable (Lindblom 1959; Beauregard 1984). The model is about figuring out which are those means rather than debating ends. The depoliticized ideal, however, does not imply that planning action is in fact depoliticized, or that such a thing is even possible. In fact, as several authors have noted, power relations shape both ends and means (Boyer 1986; Sandercock 1998; Beauregard 1984). Often, the production of the technical knowledge that justified certain planning interventions is heavily influenced by those with the power to decide on them (Flyvbjerg 1998). It can also be the case that there is a limited set of possible solutions, which then leads to the problem being defined to suit them. In other words, in some cases we can be looking at ‘a collection of choices looking for problems’ or what Cohen et al. (1972) call ‘the garbage can model of organizational choice.’

The second abstraction is that there is something that can be called ‘the economy’ (Speich 2011; T. Mitchell 1998, 2014), a product of national accounting methods that became universal between the 1930s and the 1950s (Speich 2011). Rather than measuring the impacts of infrastructure investments at the enterprise level, large projects could now be accounted for at the level of ‘the economy,’ a measure that put aggregates over particulars. Along with this

method of national accounting came ‘a sensational new view of the world as a place of enormous poverty [and] the belief that these issues could be solved through social engineering’ (Speich 2011, 10). Infrastructure investments and development projects were part of these social engineering interventions that could now be measured at the aggregate level. The notion of the ‘infrastructure gap,’ discussed in the third chapter of this dissertation, is based on this aggregate-level conceptualization of the economy. These two assumptions underpinned the idea that technology was secular, and thus it could be inserted into an economic model together with other inputs to create an aggregate production function. Within this worldview, local impacts of infrastructure investments and its potential effects on inequality were, at best, an afterthought.

Transportation planning is particularly prone to purely technocratic analyses (Kębłowski and Bassens 2018). According to Kębłowski and Bassens, the common framing of urban transportation debates is centered on two equally depoliticized approaches. One rests on neoclassical economics assumptions and largely promotes automobile-oriented policies. The other is the sustainable mobility paradigm, which they argue also carries out transport research as ‘a politically neutral and objective activity’ (Kębłowski and Bassens 2018). Whether it is true that sustainable mobility activists see transport as depoliticized is highly debatable. In some cases they might neglect the socio-spatial implications of mixed-use development and sustainable mobility projects. But challenging the configuration of an automobile-oriented urban development is in itself political. In any case, the call by the authors to repoliticize transport research by incorporating critical approaches that consider issues of race and class is valid. Nikolaeva et al. (2019) also call for the repoliticization of transportation policy and, in particular, of mobility transitions. They criticize technocratic views based on a logic of scarcity and propose instead the concept of ‘commoning mobility’, or collective thinking and action to transition toward greener mobilities.

In fact, there is increasing interest from the social sciences in engaging with the social aspects of transportation and with what transportation networks and policies can tell us about power, inequality and citizenship. Since around the time when Sheller and Urry proposed that a ‘new mobilities paradigm’ was on the rise at the intersection of a diversity of disciplines doing mobility-related research (Sheller and Urry 2006), socio-political studies of transportation have been on the rise. Historian Peter Norton’s work analyzes the reconceptualization of public space in order to readapt American cities to car traffic since the 1920s (Norton 2011). In contrast, Lake Sagaris (2014) and Jason Henderson (2009, 2013) have written about the role that social movements can have in challenging such dominance of the car. Don Mitchell (2005), in turn, has argued that SUVs are a reflection of an isolationist citizenship based on a false sense of security and autonomy. In a similar vein, Trumper and Tomic (Trumper and Tomic 2009) have written on the cultural role of automobility in creating neoliberal subjects in Chile. They also pay attention to the neoliberal reforms and economic restructuring that paved the way for a steep increase in car use, a proposition in which they are joined by Franklin Obeng-Odoom (2010) and Óscar Figueroa (2005). In 2018, the *Journal of Transport Geography* dedicated a special issue to these topics with a particular focus on Latin America (Blanco et al. 2018). My dissertation contributes to this discussion by showing how a particular way of delivering infrastructure brought by neoliberal governance has the potential to accentuate the dominance of the car.

1.2. Theoretical framework

1.2.1. Neoliberalism

Most definitions of neoliberalism range between its socio-economic and its socio-cultural aspects. Among authors that focus on the former, some see neoliberalism as policy (cf. Larner 2000). For instance, economists Luiz Carlos Bresser-Pereira (2009) and Lance

Taylor (1997) have argued that neoliberalism is a return to the self-regulated market, abandoning the developmentalist project that was hegemonic during the mid-twentieth century. Marxist readings of neoliberalism also focus on its economic aspects, but pay more attention to class. David Harvey argues that neoliberalism is an elite project that seeks to restore class power. While there is an ideology underpinning to the project, its class-based notion trumps it, so a variety of policies can be sought as long as that they favor the restoration of class power (D. Harvey 2007, 119). Usually these policies favor marketized notions of what was once public or the 'commodification of everything' (D. Harvey 2007, 165), but state power is often used in ways other than plain marketization.

Furthermore, Peck and Tickell (2002) argue that neoliberalism develops in steps. It begins with a deregulatory wave, which is then followed by a state-building strategy that focuses on creating the institutions that will reconfigure the state and society according to marketized logics. In a similar vein, some authors have argued that the state-building effort developed during the 1980s and 1990s, rather than being a path toward deregulation, actually implies new regulations in order to allow markets to function (Vogel 1998; Majone 1997; Dubash and Morgan 2012; Levi-Faur 2005). Rather than the retreat of the state, then, neoliberalism is based on public intervention for liberalization (Kurtz 2001). The large-scale introduction of PPPs in all levels of governments in Peru is a case of roll-out neoliberalism. After the initial wave of privatization and dismantling of state institutions in the early 1990s, the Peruvian state followed with an effort to build new institutions founded on marketized logics and on the dependence of private investment. The 2008 PPP reform, which sought to incorporate all the new regulations into a single comprehensive rulebook, is the culmination of this roll-out phase.

Influenced by Michel Foucault, other authors emphasize the socio-cultural aspects of neoliberalism. Some of these writers, like Foucault himself, stress that while neoliberalism

can be a class project, it entails a particular way of caring for the population (Foucault 2010). Rather than the state abandoning any duty towards the people it is supposed to take care of, the relationship between state and civil society is transformed through the introduction of the 'norms and principles of neoliberal rationality [that] do not dictate precise economic policy, but rather set out novel ways of conceiving and relating state, society, economy, and subject and also inaugurate a new "economization" of heretofore noneconomic spheres and endeavors' (Brown 2015, 50). Neoliberalism, then, does not abandon the 'will to improve' (Li 2007, 4–6). Rather, it comes with a new discourse about the role of the state that does not simply disregard its social responsibility, but transforms it according to new logics. These authors see neoliberalism not as policy or as ideology, but as a governmental rationality or governmentality (Rose, O'Malley, and Valverde 2006; Larner 2000; Osborne and Rose 1999). This governmentality introduces new 'technologies of government designed to penetrate the enclosures of expertise fostered under the welfare state and to subsume the substantive domains of expertise' (Dean 2009, 197). Rather than simply a top-down transformation in policy, these approaches see neoliberalism as a rationality that seeks to, or at least claims to, improve lives by bringing every aspect of human life under the logic of the market and by creating 'proper citizens' that conform to its norms (Brown 2015, 30–31).

Some authors bring these two perspectives together and seek to provide a more complex picture of how neoliberalism actually works in the specific context of cities (Brenner and Theodore 2002). Roger Keil has argued that '[n]eoliberal urbanism is grounded upon a restructuring of the political economy as well as on a changing set of technologies of power' (Keil 2002, 585). Neoliberalism, then, brings three concurrent transformations: a new role for expertise in which efficiency becomes key, a focus on privatization over public processes of decision making, and the redefinition of citizens as 'clients and autonomous market participants who are responsible for their own success, health, and well-being' (Keil

2002, 582; quoting Isin 1998). This notion of neoliberalism as the transformation of everyday urban life (Keil 2002, 596) or as a particular way of understanding the role of policy as the re-regulation of urban life, is a complement to notions of it as a class project, since it allows us to understand the ways in which specific bureaucrats, who may not see themselves as part of the 'project' of neoliberalism, behave in ways that are consistent with it. My concept of unplanning is informed by these views of neoliberalism, as decision-makers often mobilize market-based arguments to justify privatized infrastructures as a way of improving urban life.

Other readings on neoliberalism focus on its genealogy. A common way of interpreting the rise of neoliberalism in the Global South is to see it as the imposition of international institutions such as the World Bank and the IMF on countries that did not have much leeway because of the debt crisis (Peet and Hartwick 2009, 84–91). While it is certainly true that these institutions played a key role in imposing structural adjustment and austerity policies, looking at the genealogy of neoliberalism as an ideology (Plehwe 2009) as well as to the networks of knowledge that helped its rise points to a more complex picture in which local actors and international networks became central (Mitchell 2009). By going beyond the role of multilaterals and into the neoliberal reason that underpinned its local practices, it has been argued that neoliberalism, rather than being a fully new one-for-all policy, 'reprograms' existing systems of development depending on the context and the history of the specific countries it is brought upon (S. J. Collier 2011, 22–24). It also allows us to consider neoliberal thought as a conceptual resource that can predate the imposition of the 'Washington Consensus' (von Schnitzler 2016, 23). This allows us to situate neoliberalism within the history of the particular society we are focusing on, by understanding how it brings continuities while breaking with the developmentalist past. This view informs my historical approach in order to understand the Peruvian-specific aspects of neoliberalism.

1.2.2. Technopolitics

Development discourse and practice have traditionally regarded infrastructure as a key area of intervention. But different traditions and eras of development have brought distinct ways of thinking about infrastructure. Classical modernization theory considered investments in infrastructure as preconditions for a society to move along the ‘stages of growth’ (Rostow 1991). Later discussions have engaged with the problem of whether investments in infrastructure should precede and thus promote growth or react to existing demand (Hirschman 1963, 83–97). The main international institution in charge of promoting development in the capitalist world, the World Bank, had as one of its initial objectives to finance major infrastructure projects (Alacevich 2009, 144–45). Furthermore, while Latin American developmentalism and the theory of dependence (Prebisch 1949; Cardoso and Faletto 1978; Kay 1991) were focused on unequal terms of exchange, they reserved a role for infrastructure: the process of industrialization that they advocated required a process of urbanization that could only be achieved by improving urban infrastructure networks. Today, the consensus among development practitioners and institutions is that infrastructure is key to promote economic growth (Calderón and Servén 2004), although some have questioned the closeness of the link between the two (Straub 2008).

Marxist political economy offers a critical view on infrastructure as a key conduit for capital accumulation (Foglesong 1986; Dear and Scott 1981). According to Michael Dear and Alan Scott, planning is used to solve two pressing issues for capitalism, and is implemented only in the interests of capital (Dear and Scott 1981, 14). The first one is that ‘commodity production (...) is latent with self-disorganizing tendencies, such as crises of overproduction, market failure, monopolization,’ and the second one is the need to allow for the reproduction of the labor force (Dear and Scott 1981, 8). In the first case, the state intervenes to regulate markets in ways that solve market failures and provide public goods. In the second one, it

provides services that the market itself would not provide satisfactorily, intervening to solve problems of collective consumption in order to allow for the reproduction of the labor force (Castells 1979; Dear and Scott 1981, 11; Davis 1994, 15). The state, then, provides the infrastructure that capitalists themselves do not want to build. David Harvey shifts the focus from the labor force to land and to fixed capital investments which depend on the state for their maintenance and reproduction (cf. Foglesong 1986, 19). According to Harvey, government intervention under capitalism has two aims: 'to keep market exchange functioning properly [and] to ameliorate the destructive consequences stemming from the self-regulating market' (Harvey 2009 [1973], 274). In the case studied in this dissertation, the state intervenes not by directly providing those public goods, but by creating institutions meant to promote private sector participation in infrastructure provision.

While there is certainly truth to the idea of capitalists using the state to stabilize markets, to allow for the reproduction of the labor force, and thus to further capital accumulation, a deterministic view that assumes that those can be the only objectives of planning and state action is incomplete. A monolithic view of the state does not allow us to attend to at least two issues. The first one is the role of planners and experts, each of them with their own views, interests and motivations, which may or may not align with those of capital. And the second one is the role of social movements. As Fainstein and Fainstein have put it, '[a] less than deterministic conception of state actions views them [state actions] as responsive to the character of state officials, on the one hand, and to the forces making demands, on the other' (Fainstein and Fainstein 1979, 358). Social movements can push the state in ways that go beyond its role in reproducing capitalism. Both the role of public officials and experts, and the role of organized residents, will be covered in this dissertation as a way of showing how the relationship between the interests of capital and infrastructure outcomes is not as straightforward as it might seem.

Foglesong (Foglesong 1986, 6–7) partially agrees with Dear and Scott, and Harvey, but contends that while planning contributes to the maintenance of the capitalist system, planners and the state can have a degree of autonomy from capital. Thus, expertise and planning ideas should be taken seriously. In fact, we should not assume that experts behave always in the same way in relation to power (Brint 1990). Still, in some cases, their mode of thinking might align with the interests of capital, particularly under neoliberal hegemony, where the use of market mechanisms to solve social problems is widespread.

The literature on technopolitics is a good complement to Marxist political economic readings of urbanization and planning. Largely drawing upon actor-network theory, science and technology studies, and Foucauldian studies, this literature attends to the role of objects, technology and ways of knowing in shaping the world. The concept, technopolitics, refers to ‘the ways in which political actions are embedded within technical forms and, conversely, the ways in which the technical shapes political questions’ (von Schnitzler 2016, 10). It comes from a realization, then, that technologies and infrastructure shape political actions and relations of power, and can become the site for their contestation. In fact, the ways in which protesters engage with infrastructure reveal its political nature, even when they are often depicted as purely technical or administrative instruments (von Schnitzler 2016, 16). In this way, as I will show in this dissertation, the protests against the urban consequences of its construction and the barriers to movement it brings reveal conflicting rationalities (cf. Watson 2003) between the technocratic views supporting privately-financed infrastructure and its everyday users.

The combination of technological changes and the transformation in economic ideas challenged one of the foundations of modernist planning: the state-centric, monopolistic ideal that assumed that infrastructural networks should be unitary and provided or closely regulated by the state (Graham and Marvin 2001). What was once a stabilized sociotechnical system

(cf. Edwards 2003), with its own logics regarding material deployment and knowledge, became destabilized. Once centralized networks became unbundled, ‘splintered’ networks emerged to bypass certain spaces in order to more effectively connect other, premium spaces and activities.

While it is true that planning in the United States and Western Europe during the Fordist era was based on this ideal, things get more complicated when looking at countries of the Global South. Rather than a unitary ideal for infrastructure, these societies were often built on the separation of the colonial elites from governed subjects (Lamprakos 1992; Swyngedouw 1997; McFarlane and Rutherford 2008; Kooy and Bakker 2008). Kaika and Swyngedouw (2000, 129) argue that, during early modernity, urban technological networks became ‘fetishized as the material expressions of the ideology of progress.’ If networks could symbolize modernity, the lack of them could symbolize the opposite. Particularly in colonial and postcolonial settings, infrastructure networks have been deployed to create modern subjects by differentiating them from the ‘backwards’ natives. Thus, modern subjects were often defined by their access to infrastructure networks. Besides its role in developing ‘the economy’ (cf. Mitchell 2014), then, infrastructure networks also embody governmental projects (Joyce 2003, 11–15; 62–93). Infrastructure has historically played a symbolic role, ‘gesturing to an imminent modernity, even as that modernity was endlessly deferred’ (Sharan 2006, 4906, referring to Dehli, quoted in McFarlane 2008, 419). The relationship between infrastructure and modernity, thus, is also symbolic (P. Harvey and Knox 2015; Deboulet 2010; Kaika and Swyngedouw 2000).

The transition from state-centric infrastructure provision to privatized infrastructures, then, must be understood in the light not only of its economic role, but also of its symbolic, socio-cultural role. If the monopolistic ideal to which Graham and Marvin (2001) referred was never achieved or even pursued in many of the cities of the colonial and postcolonial

worlds, then the fall of that ideal has a very different effect in those cities than in the North Atlantic. Often, rather than privatizing existing, centralized networks, the introduction of neoliberalism and market mechanisms has brought the expansion of those networks to areas that were not served before (Fernández-Maldonado 2008). This has the potential to bring services to populations that were not previously taken into account, but under widely different assumptions and conditions than that of the modernist ideal. In these cases, the social push for expanding access is met not only with new assumptions about how services should be provided, but with neoliberal assumptions about how the modern subject must behave, i.e. by following norms of individual responsibility often enforced by the user fees that will finance these networks (Collier 2011; Von Schnitzler 2008; Goldman 2007). If colonial infrastructure defined the modern subject by differentiating the European from the local, neoliberal ways of providing infrastructure can claim to modernize people by bringing them into the discipline of the market.

1.2.3. Planning and ‘unplanning’

While some of the highways studied in this dissertation follow existing plans, others simply bypass them or use proposals in previous, non-current plans. As Ananya Roy writes in *City Requiem, Calcutta* (Roy 2002), initial observations of such a phenomenon can lead us to think that the issue is a lack or a failure of planning. The response to this, as Roy proposes, should be to look for modes of regulation that go beyond traditional frameworks of planning theory while still embedded in power relations, as in the case of what she calls the ‘unmapping’ of Calcutta (Roy 2002, 187). The way governments and planning deal with informality where it is almost ubiquitous is an example of this (Roy 2009), as its flexibility allows governments to ‘present themselves as open and democratic while at the same time

using this as a planning strategy to deny particular groups access to rights and services' (Watson 2009, 2262).

An example of a planning regime that goes beyond traditional planning theory is Enrique Silva's idea of deliberate improvisation (Silva 2011). According to Silva, this was the regime in place for when the government of Chile decided to implement a program of urban highway construction in Santiago. He explains the concept as the practice of planning without a plan: highways were planned while leaving issues of democratic participation to the implementation process. Planners likely knew that the projects would face contestation, but they decided to plan them anyway and to deal with the conflict later, after the projects were approved. While, as I will show in this dissertation, a similar case can be made for Lima's recent experience with urban highways, the 'plan without a plan' goes beyond dealing with conflict later. Lima's regime of 'unplanning' starts before the highways are even planned, as the introduction of private finance influences what gets built in the first place. However, rather than the absence of planning, 'unplanning' is proactive.

Other authors have used 'unplanning' as a concept. For instance, Schleicher (2013) proposes the re-regulation of land use based on three different ways of what he calls 'unplanning' in order to improve affordability by overcoming local opposition to new development. Here, unplanning is a proposal for a re-regulation based on local incentives to new development rather than an analysis of an existing mode of regulation. Siegel (2010) also writes about unplanning as a proposition. But rather than proposing a technical fix in order to avoid or win over political opposition, he contemplates it as a way of repoliticizing what he sees as the failures of technocratic planning (or, in his view, simply planning). For him, unplanning would become the 'new urbanist' response to modernist and automobile-oriented planning. Hendler and Wolfson, in turn, see unplanning as the absence of planning and the taking over of private developers as the main actors in reconfiguring urban space in

South Africa, especially since the 1960s and 1970s (Hendler and Wolfson 2013). They see unplanning as closer to the absence of planning than to a specific regime of planning or regulation. These notions of unplanning are based particularly on the regulation (or deregulation) of land uses. Luna Khirfan (2019) goes beyond land use and into projects. She defines unplanning as either a failed process of planning or a truncated plan of project, which are produced by the abandonment of previous abandonment of planning principles because of the rise of neoliberalism. In the specific case of Amman, unplanning comes with the endeavor to create a world-class city while abandoning previous ideas of integrating a segregated city. My notion of unplanning is closer to those of Hendler and Wolfson, and Khirfan, than to those of Schleicher and Siegel. I am not proposing unplanning, but, as the first actors have, proposing it as a concept to analyze what is going on. My distinction with these authors, however, is that I see unplanning as a specific regime of governance rather than the absence of planning or simply its privatization. It is not just simply abandoning previous planning principles, but replacing them with new ones that have transformed the role of the state, especially regarding how it deals with private capital.

The contributions of my dissertation to the literature are threefold. First, it will contribute to the literature on PPPs as an instrument of governance. Critics of PPPs have paid attention to flaws as a service or infrastructure delivery scheme. I go beyond that in looking at its potential for transforming the planning process from the outset rather than simply its implementation phase. Second, I will contribute to the literature on urban transportation. My specific contribution to this literature is on the political economic issues that need to be considered and are often energized by ideological commitments to automobile-oriented policy. Third, I will contribute to the literature on planning theory by proposing a specific planning regime which I call ‘unplanning.’

1.3. Methodology

During the mid-twentieth century, when large Latin American cities were growing rapidly due to internal migration, Lima became a symbol of progressive planning. Despite the scarcity of funds dedicated to provide affordable housing to incoming low-income migrants, these new residents found ways of integrating themselves in the city, often supported by a diverse array of actors including activists, organizers, political parties and governments (Degregori, Blondet, and Lynch 1986; D. Collier 1976; Stokes 1995; Dietz 1998; García 2013; Stiglich and Lerner 2019). The state passed new laws intended to allow low-income people to stay in squatted land and continue processes of auto-construction (Calderón Cockburn and Maquet 1990, 35–37). New neighborhoods were created on public land and, even when public resources were insufficient, residents fought for protections to self-build their houses and mobilized to demand public services and infrastructure. As an example of progressive approaches to planning in Latin America, Lima was visited by practitioners and scholars to participate in and research its process of urbanization planning (Turner 1967, 1968; Mangin 1967, 1970; Calderón Cockburn and Maquet 1990, 38–52).²

The rise of neoliberal approaches to urban governance has challenged this progressive consensus. Decades-old neighborhoods that had security of tenure are facing new challenges as public-private partnerships threaten to evict residents in order to build infrastructure projects such as highways (Strauch, Takano, and Hordijk 2014). Residents are organizing again. Now the challenge is not to remain in a recently occupied plot of land or to get public services, but to keep established neighborhoods from suffering the consequences of infrastructure investments, and the increasing costs of moving around the city brought by

² The word *progressive* here has a double meaning. On the one hand, it was progressive, or left-leaning, in the sense that governments accepted squattings as a way to allow low-income people to access land outside the market (although the process also had clientelistic characteristics that prevented, at least during its first two decades, the appearance of more radical demands). On the other, it was progressive in the sense that housing construction was incremental: residents would start with a plot of land in which they initially would build a precarious home, and from there they would build a house incrementally.

user-fee-financed infrastructures. Now, rather than being at the vanguard of approaches to planning, Lima is largely following methods implemented in other cities, especially those of its neighbor Chile, the 'laboratory' of neoliberalism.³

The specific case I will investigate is the process by which the municipality of Lima has partnered with four different corporations to deliver hundreds of kilometers of new highway lanes. The main question to be addressed is how has the availability of private finance to deliver infrastructure transformed the planning process, its priorities and its outcomes? A complement to that question is, if this transformation can be understood as a specific planning regime, what form does this regime take? There are other three questions that will be addressed. The first one is historical: What continuities and what changes to planning and infrastructure delivery has the introduction of private finance brought? The second one is related to knowledge, expertise and planners: What can planners do in the face of the constraints brought by neoliberal institutions and how do they abstract and characterize the city and its problems in order to rationalize their interventions? The third one is related to social conflict: How has the introduction of private finance transformed the demands and forms of local mobilization? To answer these questions, I use a case study approach that includes archival research and interviews, as well as historical methods. The case study method is the ideal option for my questions because it allows the researcher to take a holistic approach that includes both the details of the topic and the context in which the process unfolds. This method is particularly useful when the boundaries of the case are not easily defined (Yin 2009, 18). My case is the process by which the municipality has partnered with corporations to deliver infrastructure. Its boundaries are not clear because there is abundant context that both impacts and is part of the process, such as the political processes that

³ While direct subsidies to demand have largely replaced previous ways of accessing housing through collective action (Fernández-Maldonado and Bredenoord 2010), public-private partnerships have become the new mode of providing certain types of urban infrastructure.

influenced the negotiations and renegotiations of the contracts, public discourses framing the need for automobile oriented infrastructure and private investment in infrastructure, the financial interests of actors that may not have been directly involved in the negotiation between the firms and the municipality, and the role of residents that were excluded from the negotiations but had to be incorporated after they mobilized against them. The complexity of the case, the need to pay attention to detail through an in-depth study, and the fact that my questions seek to understand *how* the process unfolded justify the use of the case study method (Flyvbjerg 2006).

I use a combination of archival research and interviews. For my first chapter, which presents the history of automobile infrastructure planning and construction in Lima, I use both archival research and secondary sources. In the archive of the Ministry of Transport and Communications I found documents related to the construction and widening of specific roads in Lima between the early twentieth century and the 1960s. I also conducted research in the archive of the Municipality of Lima, where I found documents on a wide array of topics such as the memoirs of mayors,⁴ metropolitan plans, and censuses. I complemented this documentation with secondary sources in order to offer a long-term history of transportation planning in Lima as a way to both set a background for my topic and understand what changes and what continuities has the introduction of private finance brought.

For my other three chapters, I conducted thirty one interviews. I also used three interviews conducted by a research assistant during the early moments of the process I am studying.⁵ Among the interviewees are former public officials, consultants, experts, representatives at private firms, activists, and neighborhood leaders. The interviews were

⁴ Memoirs are official documents that vary in length and are produced at the end of each mayorship. They often contain vast amounts of information, including, but not limited to, budgets, projects, council debates, speeches, and ordinances.

⁵ These interviews were done while I was conducting research for my Masters Thesis, and cover the initial phase of the process I am studying, shortly after the first highway project was approved.

semi-structured. The objectives are two-fold: first, to reconstruct the process as it happened, for which the information produced in the interviews is triangulated with documents, press reports and other interviews. And second, to understand the worldviews and intentions of those who participated in it.

I combined the information produced in this interviews with three types of documents. First, the documents produced in the process itself and as a consequence of it: contracts, council minutes, reports justifying the projects, and reports produced by other government agencies. Second, the documents that allowed the process or served as a background for it: laws, ordinances, plans, and reports about the state of transportation, of infrastructure, and of the neighborhoods impacted by the projects. And third, news reports that are useful both as a source of information about what is being reported, and to understand the discourses that work as justification for the specific projects being approved.

I faced some challenges in the process of data collection. I went to the archive of the Ministry of Transport of Communication, where archivists Carlos Pradell and Walter Janampa were very helpful, looking for information about previous highway construction in Lima. Specific information about highways, however, was not available. Instead, I found a vast amount of information on some roads built in the city between around 1900 and around 1960. Rather than discarding this information and focusing only on highways as was my original intention, I decided to incorporate it and write a longer history than I have thought. This history would not focus only on highways, but on road construction in general. Two issues justify this: first, the legal framework of eminent domain under which most roads were built during the first half of the twentieth century was established in the early 1900. And second, this longer history begins with the introduction of the automobile in the city, and helps to understand how planning sought to adapt the city to the car. Furthermore, I did find information on urban highways in the Municipal Archive, albeit not at the level of detail of

that available on the MTC Archive on roads. But the information was enough to incorporate the history of highway construction in Lima, which had its previous peak in the 1960s and 1970s, as part of this longer history.

Another challenge was that, while I was approaching actors to be interviewed, a major corruption scandal affecting the firms involved in building the highways unrolled. The Car Wash Operation (‘Operação Lava Jato’ in Portuguese) began in 2013 in Brazil as an effort to investigate corruption allegations involving major construction companies from that country, including OAS and Odebrecht, two of the firms that won bids to build highways in Lima through their Special Purpose Vehicles. By 2016, Marcelo Odebrecht, CEO of the namesake company, was sentenced to 19 years in prison. Several others business and public officials are under investigation or have been sentenced as well. The investigation has found that Odebrecht has paid bribes to win contracts with the government in several Latin American countries, including Peru. In Peru, Congress established a commission also named Lava Jato to investigate the Peruvian side of the corruption allegations. Peruvian firm Graña y Montero (GyM), who is also in charge of building an urban highway, is also under investigation. The context of highly publicized corruption investigations made it especially difficult to get people that were involved in the process to be interviewed. Still, I managed to interview some former public officials. Furthermore, there is an upside to this: both Congress and the Office of the Comptroller have produced reports related to the process that would probably not be available in the absence of an ongoing corruption investigation. I have also used that information.

1.4. Outline

Besides the introductory chapter (labeled as Chapter one) and the conclusions, the dissertation is divided in four chapters. Chapter two presents a historical background of urban

road construction in Lima since the early twentieth century. The purpose is to situate the topic of the dissertation within a longer history of transportation infrastructure delivery in Lima in order to understand continuities and changes, especially transportation finance, planning and delivery. The chapter begins with the projects in the historical center that gave birth to the national eminent domain framework and ends with the 2008 establishment of the public-private partnership legal framework. These 108 years are divided into six periods that reflect changing relationships between government and private capital in the delivery of road infrastructure, as well as transportation priorities.

The third chapter offers a political economic analysis of the process by which the municipality of Lima partnered with three private consortia to deliver hundreds of new highway lanes. The purpose of the chapter is to develop the concept of unplanning by analyzing the process and its consequences. What started as a negotiation between the government of Lima and a Brazilian corporation to build an urban highway, ended about seven years later with metropolitan plans being readapted to include projects according to whether they can be sold as profitable to other corporations. In the way, two other highway projects were approved.

The fourth chapter provides nuance by looking at the ideological underpinnings of the process of highway delivery in Lima. The causes of it go beyond purely political economic dynamics and respond to an ideological commitment to automobility that is based on a depoliticized view of Lima's transportation problems. The characterizations of Lima as a low density city, together with the characterization of congestion as one of its main problems and the lack of road capacity as one of its main causes became the justification for building highways rather than investing in other modes or simply non-transport services.

The fifth chapter repoliticizes transport by going through popular responses to the process. Three issues are highlighted. First, that old conflicts for the right to stay in squatted

land are being revisited, now in consolidated neighborhood that for a long time were deemed safe. Second, that as a response to both ‘unplanning’ and the prioritization of automobile-oriented infrastructure activists have rallied around issues that for a long time had been taken for granted, such as road widening and the construction of below-grade intersections in urban areas. And third, that the increased costs of moving brought by the introduction of tolls have pushed residents of the peripheries to mobilize around the right to move in the city, which is a rather new development for areas that have traditionally organized around other issues, such as housing and local services. In summary, in this chapter I present claims that are pluri-class and metropolitan in scale, which is new for a city that, despite being highly active politically until the 1980s, has seen its demands fragmented under neoliberalism.

2.1. Introduction

During the last 120 years, Lima went from being a town of 130,000 people to a metropolis of over 9 million (see **Table 1**).⁶ Different authors have written partial and comprehensive histories of the city during this period. The importance of the process of informal urbanization has been reflected in several histories looking at Lima from the perspective of it (Calderón Cockburn 2005; Stiglich and Lerner 2019; Degregori, Blondet, and Lynch 1986; Zapata Velasco 1996; Riofrío 1978; Deler 1975). Other authors have told the history of Lima through its public housing policies (Kahatt 2015), through its architecture (Martuccelli 2000), and by offering a comprehensive account of different types of urban developments (Ludeña Urquizo 2004).

In contrast, the role played by urban infrastructure in giving shape to the growth of the city has been much less studied. In this chapter, I will tell the history of Lima through the lens of transportation infrastructure provision, and specifically road infrastructure. I will pay special attention to changes in financing structures and how they played out in the types of infrastructure they allowed for. At times, these changes mirrored the transformations related to informal urbanization, be it because of similarly relevant political-ideological contexts, or because the action of low-income dwellers pushed for change. Thus, the two histories, that of informal urbanization and that of infrastructure provision, can not be decoupled. This

⁶ In Peru, there are four levels of government: nation, region ('región'), province ('provincia'), and district ('distrito'). There are 26 regions, around 200 provinces and around 1,900 districts. The mayor of the province of Lima (population 8.5 million) is also president of the region of Lima, which covers exactly the same territory as the province, and mayor of the district of Lima (population 270,000). Within the province of Lima there are 43 districts, including the one called Lima. The metropolitan area of Lima includes the province of Callao (population 1 million), within which there are another 7 districts, including the district of Callao (population 400,000). There is no *city* government, only different levels of government, some of which alone or together form urban areas. Responsibilities for planning and service delivery are shared between levels of government. Provincial governments are in charge of zoning, roads that serve a provincial scale, and maintaining arterials and highways. The districts are in charge of local roads and other services such as garbage collection.

explains that, at times, I will elaborate on the former as a way of providing context to the main issue of this chapter.

	Population of Lima	Urban area (ha.)	Density (pop./ha.)
1876	102,000	1,107	92
1908	143,000	1,292	111
1920	203,000	1,426	142
1931	281,000	2,037	138
1940	533,000	5,630	95
1961	1,784,000	20,612	87
1972	3,255,000	n.a.	n.a.
1981	4,573,000	n.a.	n.a.
1993	6,321,000	61,000	104
2007	8,473,000	83,708	101
2017	9,562,000	n.a.	n.a.

Table 1. Population and density of the Lima urban area (1876-2017).⁷

The objective of the chapter, then, is to offer a historical background to the process that is the main focus of the dissertation, namely, public-private partnerships signed since 2009 to deliver urban highway projects worth USD1.52bn. This chapter will allow the reader to understand which aspects of this process represent historical consinuities and which aspects are particular of this specific era.

⁷ The first reliable census is from 1876 (Gootenberg 1991). All numbers reflect the population of the continuous urban area of the city. During the first half of the twentieth century, this area went beyond the districts of Cercado de Lima and Rímac, and into current La Victoria, Breña and Lince (districts that border Cercado de Lima to the south). By the 1940s, the conurbation had grown to include several districts to the south of Lima (full list: Cercado de Lima, Rímac, La Victoria, Lince, San Isidro, Barranco, Surco, Chorrillos, Magdalena, San Miguel, Pueblo Libre), but not Callao. Starting in 1961, numbers include the urban population of Callao and of the whole province of Lima. Because they include annexed towns with existing population, numbers running up to 1961 should not be used to estimate population growth rates. From 1961 on, the administrative area is consistent (the province of Lima plus the province of Callao, excluding the very small rural population). I have used this method for two reasons: first, to avoid an anachronistic representation of city size; and second, to reflect the population living in the urban area as represented in the maps found in this chapter. Population sources: 1908 Lima census; and 1940, 1961, 1972, 1981, 1993, 2007, and 2017 national censuses. Area sources: 1931 national census for area up to 1931; (Calderón Cockburn 2005, 61) for 1940 and 1961; (Municipalidad de Lima Metropolitana 1992) for 1993, (PLAM 2035 2014) for 2007. Because of the diversity of sources, reported densities should not be compared after 1940.

For most of the twentieth century, private capital has been a key actor in driving Lima's growth both through infrastructure construction and urban development. In the first decades of the century, property owners, speculators, and builders influenced decisions to plan certain roads. The government gradually responded by passing laws that made property owners pay for infrastructure improvements. By the mid twentieth century, these laws were joined by the establishment of a national planning system that sought to give the government a central role in guiding development.

In 1949 Lima's first comprehensive plan at the metropolitan scale, that is, including nearby towns, was published (ONPU 1949). The plan was followed by road system plans, which had a unique characteristic: they always considered the continuous expansion of road capacity as a necessity. Every road system plan proposed the expansion of capacity through the widening of existing roads or its conversion into limited-access ones. If we compare these plans to the reality of already built roads and public budgets, we can assume that they were never intended to be actually fulfilled, at least not in the short to mid-term. Instead, these plans were there as a reminder that almost any road widening was considered a net good. In the 1960s a fiscal reform that devolved revenue sources to municipalites and allowed the national government to finance highways through user fees made some of them a reality.

Meanwhile, plans based on the modernist ideal soon clashed with the reality of growing informal urbanization, which until then had been considered an exception that needed to be eradicated. In the late 1960s, planning began to be transformed in order to guide, rather than curtail, both individual private initiative and the growing presence of collective informal urbanization. By the 1980s, informal Lima was all but fully accepted as part of the city, and demands for transport infrastructure shifted from highways to public transit. The premise of expanding road capacity for cars as a net good, then, was partially questioned in the 1980s, when some lanes in arterial roads were converted into bus-only

lanes. The prioritization of public transport in the 1980s also showed that, while plans always pushed for road capacity expansion, its actual execution largely depended on public budgets and political priorities. Actual full-length urban highway construction, then, was also exceptional, and depending on specific socio-political contexts. In retrospect, the 1980s were an exceptional era—one in which the primacy of the car was questioned and debates shifted towards the types of transit infrastructure should be prioritized, as well as its location.

A severe political and economic crisis, however, ended all this as the rise of neoliberal governance limited once more the capacity of the state to invest in public services. Finally, in the 2000s, increasing municipal budgets largely due to an economic boom made it possible again to finance transit infrastructure projects along with adding road capacity. This vision, however, was shortlived, as the 2008 public-private partnership reform looked to attract vast amounts of private capital rather than using public budgets. The consequential prioritization of projects that could be packaged as profitable for investors rather than being the result of plans is the focus of the other three chapters of this dissertation.

2.2. 1900-1940: From speculation-driven growth to road-building as a job-creation enterprise

In the late nineteenth century, most government investments to improve national connectivity had been based on rail infrastructure (Contreras 2014). Urban transportation infrastructure followed suit. By the 1910s, Lima and the nearby towns of Callao, Magdalena, Barranco and Chorrillos were already connected via electric streetcars and rail (Cantuarias Acosta 1998, 123–24; Jiménez 2017) (see **Figure 1**). But with the introduction of the private automobile came calls to facilitate car travel between them and around the country (Contreras

2014, 76). In the 1910s, the number of cars in Lima grew from 62 to 1034 (Cantuarias Acosta 1998, 124).



Figure 1. Lima in 1908. Map by Enrique Silgado for tram company Empresas Eléctricas Asociadas. North is towards the upper left corner. Nearby towns shown are Callao (bottom left), Magdalena (center), Miraflores (center right), Barranco (right of Miraflores), Surco (smaller, above and right of Barranco) and Chorrillos (bottom right). The only area north of the river is the colonial neighborhood of Rímac, just north of Lima, named after the Rímac river. The first subdivisions outside of the colonial walls can be seen to the west (already built up), to the southwest and to the south (still under construction in the map).

During the first decades of the twentieth century, road building in Lima went from being a capitalist-led enterprise to becoming a Keynesian endeavour in response to the global economic crisis. Until around 1920, road building was primarily planned, financed and built

by a combination of public funds and private actors along with local governments that largely represented them.⁸ Rather than following a plan, these roads and their financing schemes were mostly designed on an ad-hoc basis, which in practice meant that they depended upon the private interests around their construction. As we will see, two eminent domain laws written for the specific purpose of building roads in downtown right at the turn of the century became the legal framework for this period. However, changing political contexts led to two other modes of road building. First, president Augusto B. Leguía (1919-1930), who brought a modernizing project largely based on road building and modern urbanism, incurred high levels of debt with American banks in order to finance its mission. Following the 1929 crash that limited the Peruvian government's ability to keep financing roads with debt, a new financing scheme was designed in order to build roads and other urban services such as housing in order to promote job creation.

At the turn of the century, three major issues defined the process of urbanization and infrastructure provision in Lima. The first one was the concern that density was getting too high, which brought problems of congestion and disease. The population of Lima was growing at a much faster pace than its urban area (see **Table 1**). Until 1870, in fact, the city had still been contained by colonial walls, which were demolished and replaced with boulevards. The first response was to improve sanitation in the old city and was then followed by providing infrastructure that could facilitate urban expansion and improve the connectivity with nearby towns to the south. The trams, which served this function, were shortly after followed by roads. These solutions were mediated by racialized understandings of citizenship (Drinot 2011), which influenced the configuration of a pattern of segregation

⁸ The electoral system during the first decades of the twentieth century was highly exclusive and had a tendency to give more power to the propertied classes by giving them control over the electoral power (see (Peralta 2005; Luna Jacobs 2014)). Only literate men older than 21 could vote. For instance, in the 1899 general election, out of a population of around 4'000,000 people 109,000 only had the right to vote (Soldevilla 2001, 611; quoted in Luna Jacobs 2014, 85).

whereby the middle- and upper-classes would live south of downtown. The second one was the diversity of actors deciding what to do regarding these issues. Land owners, city councils which largely represented property owners, the national government, entrepreneurs, and other power brokers, all had a say in what to build and how to finance it. During the first half of the twentieth century, periurban land became increasingly concentrated in a small number of owners (Calderón Cockburn 2005, 66–67), which exerted influence in how and where the city would expand. The third one is that, responding to the introduction of the private automobile, the city began to be readapted for it with the construction of suitable roads.

In April 1901, La Colmena Sociedad Anónima⁹ submitted a proposal to the national government to build a 25-meter wide avenue that would cut across Lima. The avenue would connect, on a straight line, two boulevards that had been opened in recent years in places previously occupied by colonial walls. Three months later, the national government approved the proposal.¹⁰ La Colmena was not led by an anonymous entrepreneur. In fact, its general manager was one of the most prominent politicians of late-nineteenth and early-twentieth century Peru: Nicolás de Piérola, who in 1899 had just ended his second term as president, which began in 1895 after he won a civil war that shifted the balance of power away from the provinces and towards Lima (Contreras 2004, 292–96).

The initiative had complied with the requisites established only a year before by Peru's first law of eminent domain, which required projects to include a detailed explanation of why it should be declared to be of 'public usefulness.'¹¹ In the case of the Interior Avenue, as it was initially called, reasons were mostly related to hygiene. The new road would offer the opportunity to build a proper sewage collector, destroy gardens that had become a

⁹ A Sociedad Anónima is a shareholder organization, similar to what in English speaking countries would be called public limited company or, simply, corporation.

¹⁰ Boletín 'La Colmena', May 11th 1901. MTC Archive, AVEN 121.

¹¹ Law of November 12th, 1900. Until 1904, Peruvian laws were not identified with a number, and were known by the date they were passed instead.

‘malarial focal point’ (foco palúdico), and provide better ventilation. These reasons were in line with what was by then one of the main concerns of urban policies: sanitation (Ramón 2004, 22; Drinot 2011, 129–30). But those were not the only reasons. La Colmena S.A. also made the case that opening a new avenue would improve traffic and circulation, would facilitate the construction of train stations, and would open new spaces for urban development.

The last one was actually the main reason behind the proposal. La Colmena S.A., after all, had been founded the previous year as a savings and urban development corporation (Drinot 2011, 130). A bulletin published by La Colmena in May 1901 explained their interest in buying land fronting the new avenue.¹² The corporation would then finance luxury buildings with savings from the public (Quiroz 2016, 214). In fact, the construction of the road would be financed by capitalizing that land. La Colmena would bring the profits from that land to the present by using its shareholders’ savings. To go along with the plan, Piérola was trying to convince the representatives of the *Sociedad de Beneficencia*, Lima’s main public charity organization and owner of much of the land involved, to buy part of their land. The land needed for the avenue itself would be acquired through eminent domain by the Lima council.¹³ In the end, a 1903 law updated the eminent domain law of 1900, expanding the land deemed for eminent domain to up to 30 meters on each side of the road, and allowing private actors such as La Colmena to apply eminent domain directly.¹⁴

The 1903 law, along with further amendments, would become the blueprint for building roads in Lima for the next four decades. But while it was written with the explicit

¹² Boletín ‘La Colmena’, May 11th 1901. MTC Archive, AVEN 121.

¹³ Boletín ‘La Colmena’, May 11th 1901. MTC Archive, AVEN 121.

¹⁴ In the following years, La Colmena had financial troubles that delayed the construction of the road, which was only half completed by 1911 (Ramón 2004, 24). Most of it was built by 1921, the year the country celebrated 100 years of independence with the inauguration of several public works in Lima. But the last stretch of the avenue that would later be called Nicolás de Piérola was only completed in the 1960s.

aim of facilitating the construction of a single brownfield road, its effects applied to greenfield roads as well, which would gradually become the most common type of road construction during this time. In fact, there were three types of roads being built during the first two decades of the century: inner-city penetration roads such as Nicolás de Piérola Avenue, ring-like boulevards, and expansion roads towards nearby towns (Ramón 2004, 24). The law was later adapted to this new reality in further amendments. In 1916, law 4108 allowed the expropriation and development of 100 meters of land on either side of the road. This change would allow for the financing of greenfield roads via the capitalization of land, facilitating speculation.

In the late 1910s, the construction of a 6-km long road connecting Lima with Miraflores began. In 1916, the owners of Hacienda Lobatón,¹⁵ located between Lima and Miraflores, had asked the government to build the road. Two years later, property owners and residents of Miraflores, who were backed by their city council, along with the councils of Lima, Barranco, and Chorrillos, as well as the Automobile Club, submitted a formal request for the government to declare the construction of the road to be of ‘public necessity and usefulness’.¹⁶ The government approved the project, which was supported by most property owners along the route. To finance its construction, it created a fund called ‘Peruanos de Tarapacá’, after the migrants coming to Lima from the southern province of that name.¹⁷ The creation of the fund was one of the first signs of road construction being inherently linked to job creation, which would become a key feature in the 1930s. The road, along with Avenida

¹⁵ Haciendas were land estates that had its origins in the colonial period (Keith 1976). The hacienda system was brought to an end with the agrarian reform of 1969. Most of Lima’s expansion through the private land market before that year was on haciendas reconverted to urban uses through subdivisions.

¹⁶ ‘Necesidad y utilidad pública’ is a formal term that means that the state becomes committed to the delivery of a specific project. The current term is now ‘interés público’ (public interest), which is used in the cases analyzed in the central chapters of this dissertation.

¹⁷ The name was given by request of the National School of Agriculture of Veterinary Science, which owned an hacienda just south of Lima and was in charge of building the section of the road that went through its land. The province of Tarapacá had been lost to Chile in the War of the Pacific (1879-1883).

del Ejército (connecting Magdalena and Miraflores), which had been built a few years before, was among the first interurban roads that were not built just beside tram lines.

There was some controversy regarding the route of the avenue. At the time, agricultural land on the western part of Miraflores was being developed. The Bielich family, owners of the nearby hacienda Santa Cruz, along with people that had recently purchased land in the area, demanded that the new road connected Lima with the western part of Miraflores rather than the proposed line from Lima to Miraflores' old town. The Bielichs also owned land along the proposed route, which they used as a tool for negotiation: an eminent domain process would prove more time consuming and costly for the government. In the end, an agreement was reached to keep the original route, but adding a diagonal road that connected it with the western part of Miraflores, thus linking the Santa Cruz subdivisions to the new road.¹⁸ From the outset, it was clear that the road served two major objectives: shortening the distance between Lima and Miraflores, and opening new spaces for urbanization. Land owners understood this and supported its construction. In some cases, they even levelled the land for the road themselves, effectively sharing some of the costs with the government.¹⁹

In April 1919, when the road was already under construction, Augusto B. Leguía was elected president (1919-1930). He would become a key figure in transforming Lima through public works. Leguía, who had close links to American financial circles, gave most of the road and sanitation works in Lima to the Foundation Company, a corporation based in New York City (Quiroz 2016, 229). With Leguía in power, the avenue connecting Lima and Miraflores would be improved and widened through a concession given to that firm. It was

¹⁸ The road is now called Avenida Santa Cruz.

¹⁹ The MTC archive holds documents on the process of negotiation between the government and the Bielich family.

the first case of an urban (or rather, suburban) toll road in Lima: drivers would now pay a monthly fee that gave them the right to use the road.²⁰

But user fees were not the only or the primary way roads were built under Leguía. In order to finance his massive program of public works (Flores Galindo 1994), he passed laws that created new taxes to direct funds towards pavement and sanitation in urban areas.²¹ He also made a habit of incurring large debts with American banks. By 1931, one year after Leguía's government ended, the external debt was 360 million soles²² (USD 144 million) (Flores Galindo 1994, II:212).²³

The government was not always as proactive in taking care of local roads as it was for building new arterials. For instance, in 1926 property owners of new developments just southwest of downtown demanded that their street be paved in order to prevent the spread of disease. In a letter addressed to president Leguía, they offered to fully pay for the works if the government did not have the resources.²⁴ Two years later, the government passed a law allowing property owners to formally request the government to deliver pavement and sanitation works, with a condition: at least two thirds of the owners had to sign the appeal, and all owners had to pay the full cost of the works (including those that had not signed). The

²⁰ The road was called Leguía and later renamed Arequipa, which is its current name.

²¹ Laws 4125 and 4126.

²² This soles currency is not the same as current Peruvian currency. Until 1985 the national currency was soles de oro (short: soles). In that year, it was replaced with intis (1 inti = 1,000 soles de oro). In 1991, intis were replaced with the current soles (initially called 'nuevos soles', 1 nuevo sol = 1'000,000 intis), for which I use the international standard PEN.

²³ The Leguía government passed a law mandating every male Peruvian citizen between 18 and 65 years old to serve on *corvée* labor, that is, working for the government for free building roads. But the *Ley de Conscripción Vial* was mostly applied in regions other than Lima and Callao (see [Meza Bazán 2011, 311–15](#)). There is a debate about the main objectives of the law. While it provided free labor, it has also been argued that it allowed certain regions to get any labor at all, and that the law was meant to have a civilizing mission by disciplining the indigenous population through labor (Drinot 2011).

²⁴ MTC Archive 098. The street is Av. Bolivia, and the neighborhoods were called Chacra Colorada and Garden City.

law also allowed the national government to deliver works in the absence of such request, and still charge the full cost to property owners.²⁵

In the 1930s road construction, along with other public works and housing policy, became inherently tied to job creation. In a context of high unemployment caused by the post-1929 crash economic crisis and the state's inability to keep taking loans from American banks, the government created the Juntas Pro-Desocupados (Committees for the Unemployed) in 1931, to be led by members of local elites selected by the government. The Juntas also served a political purpose, namely, containing the growth of leftist parties, which elites thought could flourish in a context of economic crisis and high unemployment (Drinot 2011, 141–42). New taxes were created for local Juntas to administer them (Félix and Toro 2014, 194). While the Juntas' role in carrying out a workers housing program has been studied (Félix and Toro 2014), much less has been made of the fact that, between 1931 and 1934, 3.6 million soles, or around half of the Lima Junta's resources, were spent on roads, bridges and sanitation (Drinot 2011, 137).

The creation of new sources of revenues to fund public works was the beginning of a transformation in the way Lima's infrastructure was conceived, financed, and delivered. During the 1930 and early 1940s, the Lima junta financed several road projects that allowed the urban expansion of the city. But not every project was being channeled through the juntas. For instance, in 1938 Antonio Castro Jr. proposed the construction of a government-planned 1.5-km long road connecting Arequipa Avenue with the newly opened Limatambo Airport. He would be in charge of financing and building the road and, in exchange, would take control of the land 100 meters on either side, as allowed by eminent domain legislation. The owners of that land were on board with the project, as their land beyond those 100 meters

²⁵ Law 6186 from 1928.

would be revalued as well.²⁶ It was clear that, besides who financed the road, speculators were among the main beneficiaries. A new legal framework was created in 1940 in order to prevent this or, at the least, increase the government's share in those benefits.

2.3. 1940-1949: Land value capture and the rise of comprehensive planning

The 1940s were a key transitional period for the city of Lima. There were three major changes that occurred rapidly and transformed urbanization and planning in the Peruvian capital. First, an earthquake in 1940 destroyed homes and created a housing crisis that led to the first wave of informal urbanization. Second, car ownership and car use grew rapidly, which led to increases in congestion and road deaths, as well as calls for adding road capacity as a solution. And third, comprehensive planning rose as an ideal. New laws and planning organizations gave the state more power to curb speculation and share the financial benefits of urbanization.

By 1940, it became apparent that land owners were ripping a significant portion of the benefits of Lima's urban expansion, which in the 1930s had been facilitated by investments in infrastructure that were largely financed with new taxes. The government, then, passed a law that went further in making land owners pay for those benefits. If by 1928 land owners had to pay the full cost of pavement and sanitation works, a law passed in 1940 brought a new charge: 'derecho de mejoras', or land value capture. Law 9125 replaced the eminent domain law from 1903 and determined that property owners not only had to pay for the cost of the specific works that were being done in their street, but for a percentage of the land value increase those investments would bring.

²⁶ MTC Archive, AVEN037. In the first block starting from Arequipa Avenue, only 30 meters could be acquired, as the area was already built up.

After the law was passed came a wave of road widening and expansions in downtown Lima. Some of these projects were being discussed from at least the 1920s (Ramos 2016, 114–22), and the law provided a source of funds that could allow the state to carry them out. Between 1941 and mid 1945, the Lima council spent over 8 million soles (USD1.2 million) on these projects. Among the most ambitious projects was the construction of a ring road around the core of the historic center. The ring road would be created by the widening and expansion of avenues Tacna and Abancay and the construction of a new road along the river (see **Figure 2**). According to initial estimates by the city council, land value capture would provide somewhere between 33% and 42% of the total cost of the Abancay project.²⁷

The projects were controversial, as they required the demolition of historical buildings, including colonial churches. The controversy was acknowledged by the 1949 Pilot Plan: ‘The conservation of the zones that have true architectonic interest will be subject to special regulations’ (ONPU 1949, 28). But while historical preservation reasons were used by those who planned the projects in order to justify selecting the roads that would minimize damages, it was not enough to stop such projects at the time, even when their construction required the demolition of colonial buildings. According to Alberto Alexander, Public Works Inspector at the Council, the widening of Abancay in particular was key to facilitate circulation, as well as improving and increasing public space. For him, those reasons trumped any historical preservation concerns.²⁸

²⁷ MTC Archive, AVEN042. Those that had land fronting Abancay would pay 50% of the increase in land value, which was estimated to be 100 soles per m², or 50 soles per m² owned. Those who had land in the roads intersecting Abancay and less than 50 meters from it would also pay 50% of a 70 per m² increase. Owners of land beyond those 50 meters and up to the corner would pay 35% of a 70 per m² increase. And land owners of the closest parallel roads would pay 20% of a 50 soles per m² increase.

²⁸ Report first written in November 2nd 1942 by Alberto Alexander and published in *Boletín Municipal*, July 31st 1945. This controversy occurred during a moment of changes in the ideas governing urban renewal in Lima. Blank-slate modernist ideas replaced neocolonial perspectives that wanted to rebuild areas of downtown on the image of an idealized colonial past. For a detailed discussion of these changes and controversies see Ramos (2016).

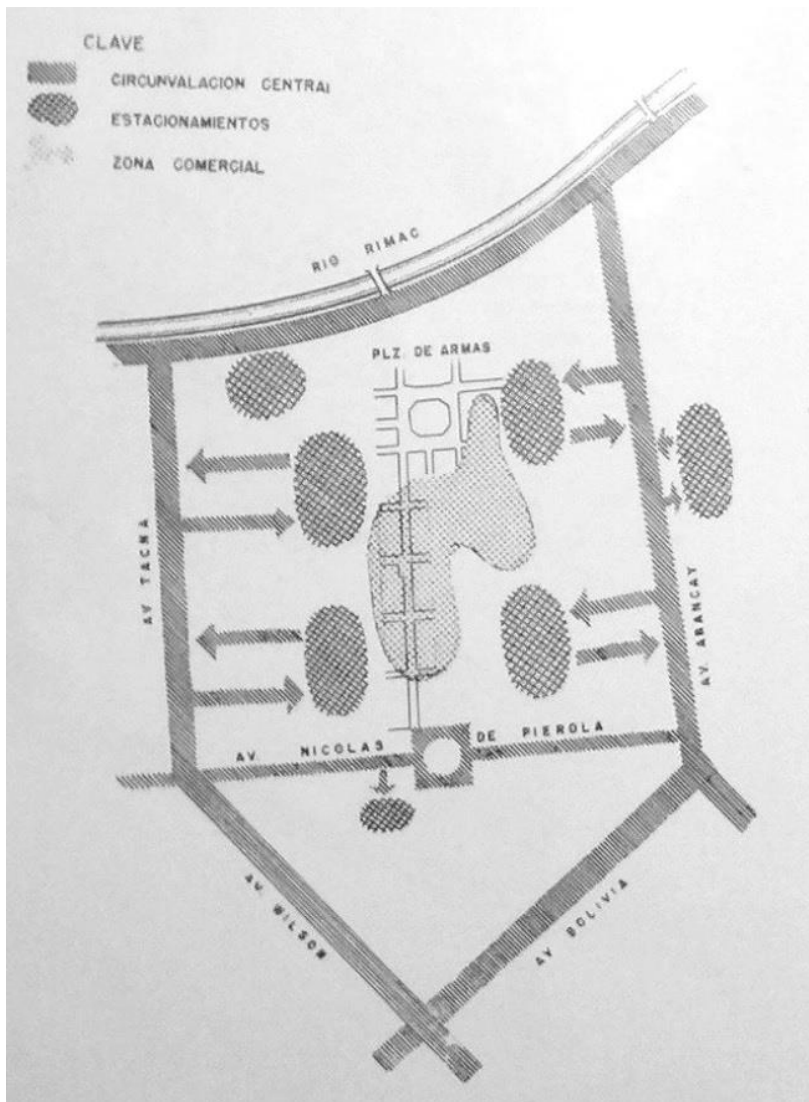


Figure 2. Ring road proposed in 1949. Proposal for a ring road (*Circunvalación Central*) around the inner historic center. *Plan Piloto* (1949), p. 28.

The national government was in charge of deciding who would pay and how much through a specifically designated technical commission. Often, the beneficiaries were divided in classes depending on how close their land was to the road being built or improved. In some cases, the exact amount to be paid was purposefully made equal to the amount needed to expropriate land.²⁹ Since the 1928 mandated that land owners had to pay the full cost of

²⁹ MTC Archive, AVEN099. This was the case in the expansion of Av. Bolivia, in downtown.

physical improvements, this meant that all of the costs could potentially be assumed by property owners.

While the introduction of land value capture was the first major step toward the state getting a stronger hold of the process of urbanization and infrastructure provision, planning was still largely fragmented. A diversity of actors still had a say in which projects to prioritize. A crucial aspect of this period is that, while Lima was in the process of becoming a continuous urban area along the avenues opened in the first decades of the century, infrastructure projects were still being decided in a fragmented way: any city council could plan major roads in what was increasingly becoming an continuous urban area. In 1940, a Supreme Decree officially recognized the city of Lima as a conurbation that included the old city, the expansion neighborhoods just south and southwest of it (all the way to Lince and San Isidro), and the nearby towns of San Miguel, Magdalena, Pueblo Libre, Miraflores, Barranco, Chorrillos and Santiago de Surco.³⁰ While there were patches of undeveloped land, both Lima and its ‘balnearios’ (beach towns) were now considered one continuous urban area (see **Figure 3**).

³⁰ Decreto Supremo of 2/9/1940, cited in the 1940 Census book, p. XXIX. The full list of districts included in the city of Lima are: Lima (Cercado), Rímac, La Victoria, Lince, San Isidro, Miraflores, San José de Surco (Barranco), Santiago de Surco, Chorrillos, Magdalena del Mar, San Miguel and Magdalena Vieja (Pueblo Libre). Other districts of the province of Lima were mostly rural and not considered part of the city. Today, all districts of the province are considered to be part of metropolitan Lima.

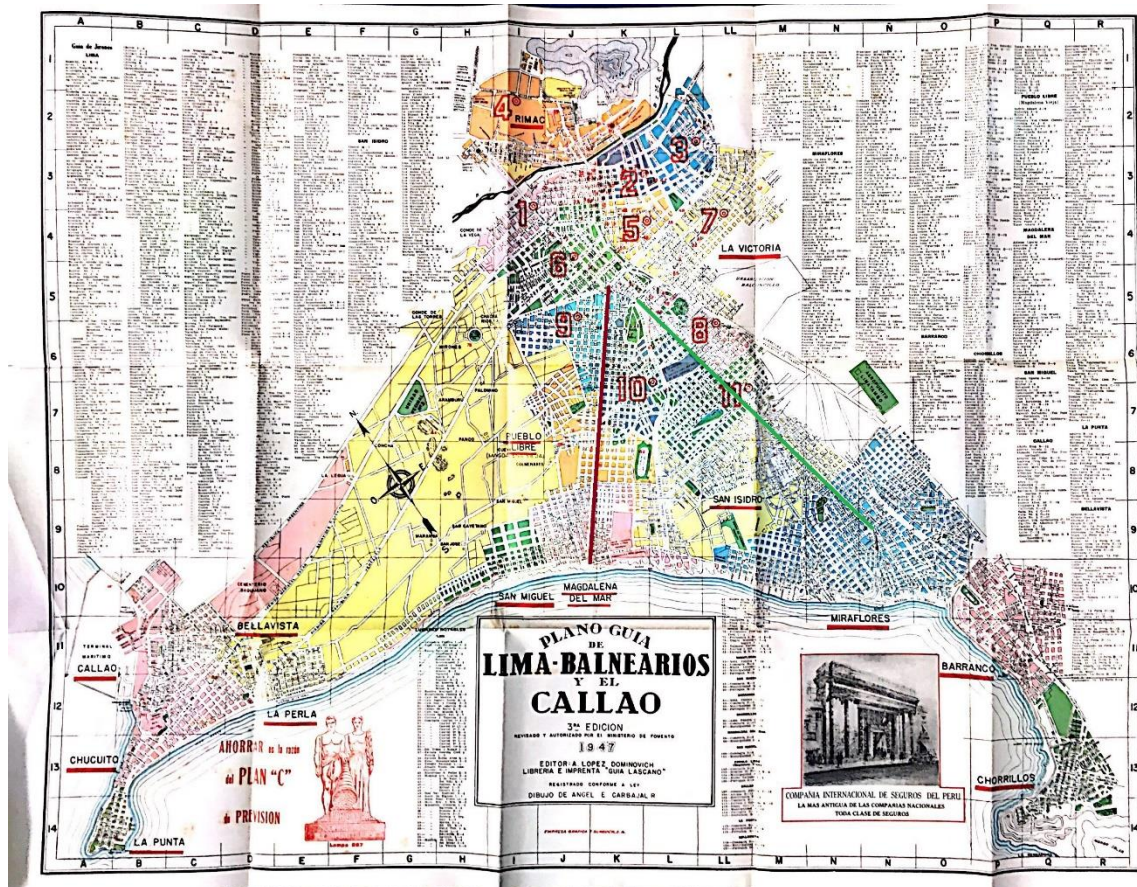


Figure 3. Lima in 1947. I have highlighted the road to Magdalena (Av. Brasil) in red and the road to Miraflores (Av. Arequipa) in green to show how these organized urban growth during the first half of the century. Plain yellow is agricultural. Lima and nearby towns (except for Callao, bottom left) now formed a continuous urban area. Map from MTC Archive.

In order to plan the urban area in a comprehensive manner, new planning institutions were created. The National Housing Corporation (CNV) and the National Office for Planning and Urbanism (ONPU) were formed in 1946. The CNV would be in charge of building public housing, while ONPU produced the first comprehensive plan for Lima, the *Plan Piloto* (Pilot Plan) published in 1949.

The land squattings that followed the earthquake were not the first ones in Lima, but their intensity increased. Urban growth due to vegetative growth and migration made the

housing question worse. While between 1913 and 1939, fourteen *barriadas* were formed, that number increased to 27 between 1940 and 1945 (Calderón Cockburn 2005, 88).³¹ By the end of the decade, there was also a qualitative change in the formation of *barriadas*. While the previous ones had been formed in small areas located in hills and river banks very close to downtown, in 1948 a large *barriada* was formed in a plain north of the Rímac river. Named 27 de Octubre for the date president Manuel A. Odría (1948-1956) came to power through a coup d'état, it had clientelistic links with the government from the outset (D. Collier 1976). It also received technical assistance from ONPU, which influenced its establishment on a grid pattern. While the Pilot Plan called for the eviction of informal settlements and the provision of public housing for its residents, in hindsight it was clear from the very beginning that such a proposal would not be viable. For Peruvian society to become aware of that fact, it would have to wait two more decades. For transportation infrastructure delivery to adapt to the new pattern of urbanization, the wait would be even longer.

2.4. 1949-1965: Imagining autopia

The rise of the modernist planning ideal in Lima was reflected in the 1949 Pilot Plan, produced by ONPU and written by a group of architects influenced by the ideas of Le Corbusier and the International Congress of Modern Architecture (CIAM). Its writers denounced that cities had grown 'vertiginously and without control', which led to unsufferable life conditions (ONPU 1949, 2). Specifically, according to the plan, the location and design of some of the new subdivisions did not conform to any comprehensive plan, and 'had been created with the sole purpose of satisfying the lucrative interests of land owners.' It added that these subdivisions represented an 'economic negative value' for the collective

³¹ *Barriada* was the name given in Peru to informal settlements.

(ONPU 1949, 11). Modernist planning, then, was being established in direct contrast with the speculative-driven urbanism of the first half of the century.

The plan was a blueprint for a more specific plan, which was more limited in scope, the *1954 Plan Regulador*. Both plans acknowledged the rapid increase in car ownership and the congestion and road deaths it brought. According to the *Plan Regulador*, the ratio of cars per person doubled between 1943 and 1953 in the Lima metropolitan area. Between 1936 and 1952, in turn, the number of road deaths almost tripled. The explanation for the increase in road deaths offered by the *Plan Regulador* was bad road design (ONPU 1954, 16). While the relationship between car growth and road accidents was highlighted, the provisions were to retrofit the road network in a way that made car traffic safer (ONPU 1949, 17). As early as the 1950s, increase in car use was already being taken as a given, something over which authorities had no power. Their agency relied on making the city safer (and less congested) in spite of having more cars, rather than proposing a way of curbing its use.

The Pilot Plan had proposed to create an ‘appropriate circulation system.’ Rather than simply widening roads, which had been common during the time, the plan proposed to dedicate streets exclusively to circulation by restricting on-street parking. The solution for local commercial roads, then, was to add capacity without necessarily investing large sums in new infrastructure. This was not unique to Lima. As shown by Peter Norton, during the rise of motordom in the United States, on-street parking was a major point of debate (Norton 2011, 139–46). But in contrast with those debates, which addressed parking from both a circulation and a public space perspective, perhaps because they preceded modernist planning’s dominance, the Lima plan addressed parking only as a circulation issue: the benefit of removing it from the streets would simply be to facilitate motorized traffic. As explained by James Holston, in its more extreme formulations this strand of modernist planning strived for ‘the death of the street’ (Holston 2008). Following a similar logic, the

Plan Regulador depicted the diverse ways in which streets were used as a major cause of congestion (see **Figure 4**).



Figure 4. The street in Plan Regulador (1954). Caption: ‘the street converted into a public market, another example of the urbanistic disorganization reigning in certain sectors of the city, where streets and services have been overcome by the thriving growth of the city.’

The *Plan Regulador* provided a diagnosis of the reasons for traffic congestion that, among other issues, attacked the grid pattern for including too many intersections, and bemoaned the lack of a road hierarchy that could distribute traffic more efficiently. Another issue the plan pointed out was that public transit had arbitrary routes that often used secondary roads and added to congestion. The plan also argued that traffic regulation was obsolete for the ‘advances of the automotive technology’. The plan, then, sought to adapt the

city to the automobile, which was seen as a symbol of progress and modernity (ONPU 1954, 15).

This point is consistent with the then rising modernist planning paradigm (Holston 1989), and illustrates the way planners dealt with the problems of Lima regarding transportation and circulation. The proposed way of integrating the rising metropolis was by improving circulation in arterial roads and by building expressways both to improve the connectivity between Lima and surrounding regions, and to serve as by-pass or ring roads. The 1949 plan proposed an arterial system meant to allow rapid circulation without entering the center (see **Figure 5**). Three highways would connect Lima to the north, east and west, while a ring road would connect those three highways.³² Another highway would connect Lima with Callao along the left bank of the Rímac river.

These ideas would become influential for Lima's process of urbanization during the next two decades. For instance, rather than the grid patterns that dominated Lima's process of urbanization until the mid Twentieth century, future middle- and upper-class would follow American suburbia style curved road patterns.³³ Furthermore, the 1960 Arterial Road Plan (Plan Vial Arterial) established road hierarchies and proposed the future conversion of some roads into limited access highways, going beyond what the Pilot Plan and *Plan Regulador* had specifically proposed.

Despite the grandiose arterial system proposed by the plans, during the 1950s and early 1960s no limited-access highways were built. Instead, most investments meant to facilitate auto traffic were limited to either specific intersections or greenfield road

³² In contrast with the ring road discussed above, these roads were limited-access highways. The section closest to downtown was, as seen in Figure 5, across the river.

³³ Areas of San Borja, Santiago de Surco, and eastern Miraflores (all of them south east of downtown) that were urbanized by private developers after the 1950s, rather than gridirons, follow either fragmented or warped parallel grids which were in vogue in the United States since the 1930s (see Southworth and Ben-Joseph 2003, 3). Similar patterns can be found in areas that were urbanized later, such as parts of San Miguel (between Lima and Callao), Los Olivos (north), and La Molina (east).

expansions. In 1955, Lima's first urban grade-separated intersection was built at the crossing of Av. Arequipa and Av. Javier Prado. Meanwhile, Javier Prado and a parallel arterial, Primavera, were being extended towards the east, effectively expanding the frontier of urbanization to the east of the two rail lines connecting Lima with the southern towns (see **Figures 1 and 6**). By the early 1960s, two bridges across the river improved connections between downtown and the Rímac neighborhood.³⁴ All in all, it was a time when through specific road projects of limited scope Lima improved connections within its established urban area and facilitated the development of new subdivisions within the area contained by the proposed ring road shown in **Figure 5**.

³⁴ The bridges were Santa Rosa and Ricardo Palma, and were extensions of avenues Tacna and Abancay, respectively, across the river and into the Rímac neighborhood.

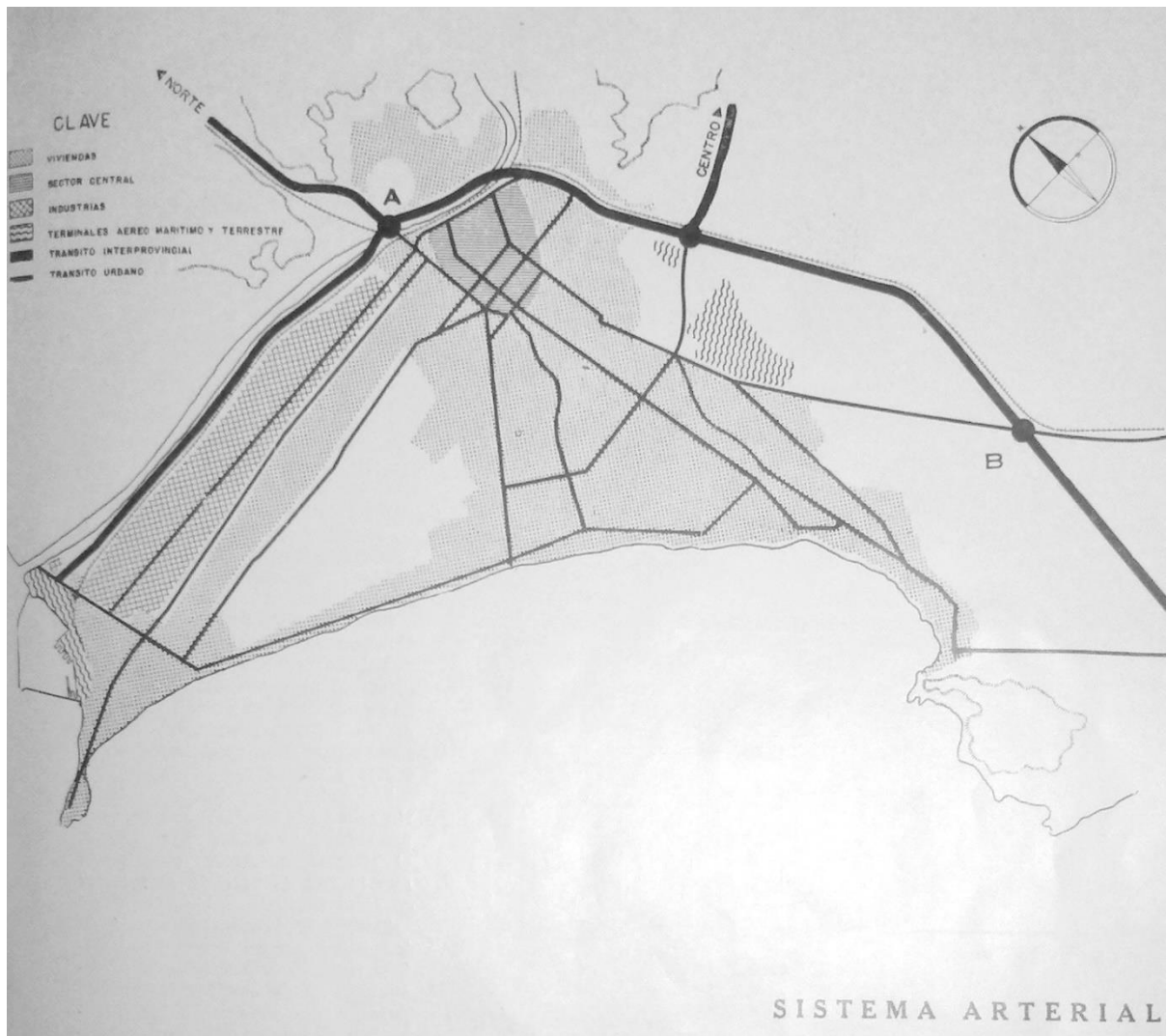


Figure 5. Arterial system in Plan Piloto (1949). It shows proposed bypass roads (highways) to allow for fast traffic without entering downtown. The inner pentagon (top center) is the inner ring road shown in Figure 2. The section between point A and the intersection with the road labeled 'Centro' is the ring road originally called Circinvalación. Only parts of it were actually built.

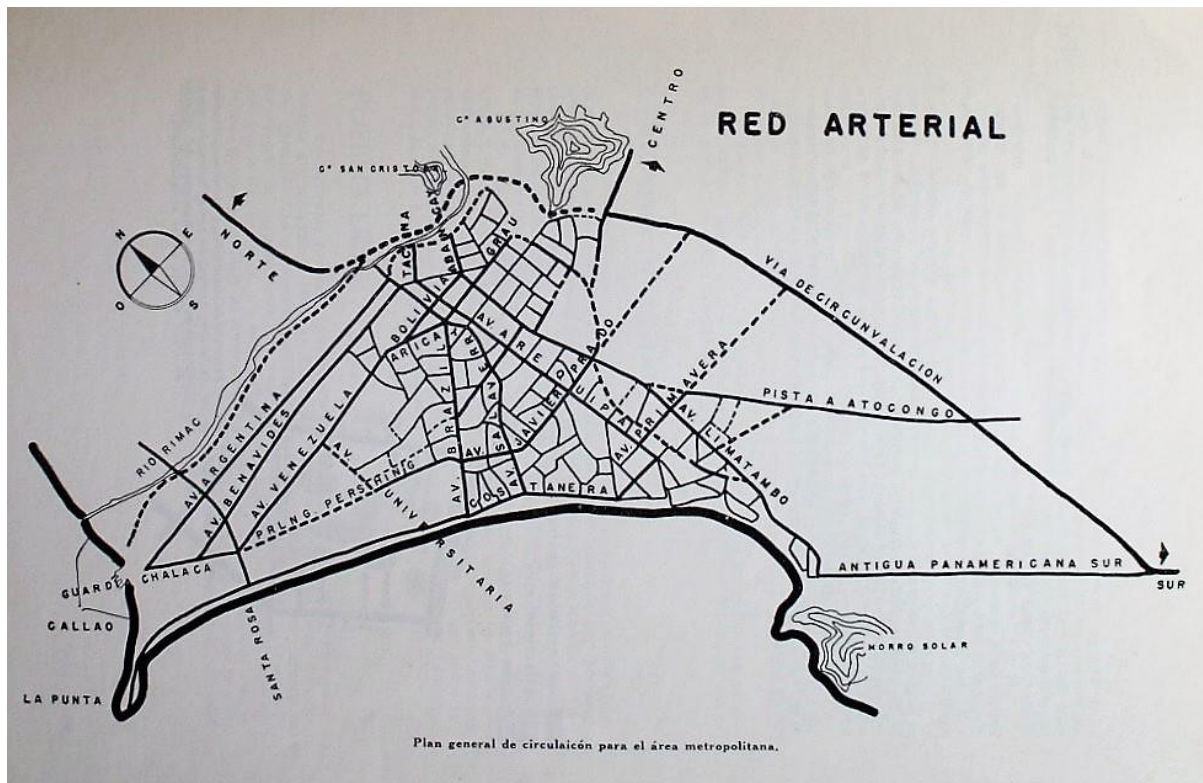


Figure 6. Road system in Plan Regulator (1954). Existing and proposed (dotted lines) arterial road network. Javier Prado and Primavera are the two dotted lines opening land for urbanization between the existing grid and Vía de Circunvalación ring road (top right).

However, there were also visions for grander projects, which were at times product of the ideas of certain power brokers. Architect Ernesto Aramburu Menchaca, Inspector of Public Works at the Lima Council and member of a family with stakes in the real estate industry,³⁵ would become a particularly influential figure during this time. Whereas previous plans had proposed to build an arterial road parallel to the Lima-Chorrillos tram line, in the late 1950s he imagined a limited-access highway built below grade. Municipal finances would not allow these visions to be deployed until the late 1960s, however, when the Vía Expresa del Paseo de la República was finally built.³⁶

³⁵ At that time, the Aramburu Menchaca family developed and sold mid-rise buildings in Lima's central areas. Shortly after the Vía Expresa was finally built, The Aramburu Menchacas were selling office space in a building located at the north end of it.

³⁶ There was a municipal finance reform in 1964-65, which is explained in the next section.

Lima's rapid urban growth, largely due to informal urbanization, would quickly prove the 1949 and 1954 plans, as well as the financial structure for public works delivery, inadequate. While in the late 1940s speculation was still driving urbanization in the core and nearby expansion areas, the peripheries had begun to be occupied through informal means. The 1940 earthquake was a trigger for this, but the process of informal urbanization would not stop. For the *Plan Regulador*, informal settlements were a 'terrible belt of clandestine houses' (ONPU 1954, 5). The Pilot Plan called for its eradication and its replacement by public housing projects.

As shown in **Figures 5 and 6**, plans and most maps representing Lima at the time imagined the city to be contained by the Rímac river to the north (with the exception of the Rímac neighborhood, just north of downtown), Chorrillos to the south, and the borders of the Rímac valley to the southeast. Part of the southern Panamerican highway ('Vía de Circunvalación' in **Figure 6**) was planned as a ring road along the border between the valley and the desert. By the 1950s, however, both the desert to the southeast and the hills to the north were being rapidly occupied through informal means. These occupations, furthermore, were no longer a response to a housing crisis produced by an earthquake, but the beginning of a new norm. They also challenged the city as envisioned in the 1949 and 1954 plans.

The housing programs initiated by CNV and ONPU would prove insufficient to satisfy the demand for affordable housing. Lima's informal process of urbanization would not be curbed by them. In fact, the housing projects that were being built did not reach the poorest sectors of the population. By 1962, there were 154 *barriadas* housing 335,919, or 18% of Lima's total population. As the links between Odría and Barrio 27 de Octubre mentioned above prove, some politicians were faster than planners to recognize the magnitude of informal urbanization.

In the early 1960s, observers and political actors noted that housing was ‘the number one problem’ of Lima. Responding to this urgency, the 1961 Law of Marginal Neighborhoods (Ley de Barrios Marginales) established a legal framework to deal with *barriadas* (Calderón Cockburn 2005, 134). Rather than negating their existence or simply calling for its eradication, the law became the first significant effort by the national government to recognize them as a valid form of urbanization, albeit as one that was governed by alternative norms and thus not equal to the rest of the city. The CNV was given a new role: it would now plan Social Interest Popular Urbanizations, which was a land rather than a housing policy. The idea was that it would habilitate land to be occupied formally by families that needed housing. The law also established a framework for infrastructure provision that recognized and promoted the cooperation of residents. This was a recognition that the infrastructure delivery framework explained in the previous section, namely, that local property owners would pay for local infrastructure, was inadequate to serve these impoverished areas. In *barriadas*, residents would provide labor rather than capital. Policy makers were beginning to understand that, given a combination of popular expertise in collective action to build new neighborhoods and a lack of funds, the response would be to create the conditions to legitimize what was by then an informal process of urbanization.

Just like land use and housing would make the plans obsolete in a short period of time, the need for mobility would have a similar effect on the plans’ transport policy and on Lima’s current structure for municipal finances. The plans imagined a city remade for the automobile in light of rising car ownership. But rapid growth of people without cars in the peripheries was starting to prove that road building would not be enough. Longer distances and less wealthy passengers meant that transit needed to be cheaper to be workable.

Meanwhile, increase in car ownership levels meant that the middle class was in the process of exiting the transit system.³⁷ By the mid 1960s, it was in crisis.

Until the 1960s, Lima still had an electric tram system. Tram lines covered the old triangle formed by Callao on the west, Lima on the north, and Miraflores, Barranco and Chorrillos on the south, as well as Magdalena, located in the middle of the tangent (see **Figure 1**). Built and operated by private companies since the first decade of the century (Jiménez 2017, 14), in the 1930s tram lines were nationalized and incorporated into the National Tram Company.³⁸ By the 1960s, however, the trams were in crisis. In fact, as early as the late 1920s, buses already were carrying more people than trams.³⁹ The expansion of the road system along with the increase of car ownership and the added flexibility brought by buses only complicated further the trams' profitability. Furthermore, the fixed nature of the tram lines meant that massive investment would have been needed for the system to cover the recently urbanized areas, particularly the *barriadas* that were growing in the northern and southern ends of the city. Moreover, planning ideas at the time tended to favor investment in roads rather than light rail. Lima's first limited-access highway, built on top of the city's first tram line, Lima-Chorrillos, became a symbol of this change.⁴⁰ In 1965, the tram company was liquidated (PLAM 2035 2014, 447–48) and its concessions canceled.⁴¹

But bus companies were also going through a severe crisis. Bus service in Lima had began in the early 1920s through private companies (PLAM 2035 2014, 449). Entrepreneurs would identify potentially profitable routes and ask the government for permission to run

³⁷ Between 1960 and 1967, the number of cars in Peru tripled, from 65,000 to 195,000 (Kuczynski 1980, 88). In the same period, the population of the city increased from around 1.6 million to around 2.5 million. Given the urban primacy of Lima, we can safely assume that most of the growth in the number of cars happened there.

³⁸ <http://www.tramz.com/pe/li/li60.html> (accessed 6/3/2019).

³⁹ In the late 1920s, there were three major roads running on lines not served by trams: Ejército, Leguía (now Arequipa), and Progreso (now Venezuela).

⁴⁰ Vía Expresa del Paseo de la República (see next section).

⁴¹ Law 15786, from 1965.

buses through them. The government would then allow the routes to be operated and establish certain guidelines such as the size of the vehicle, the number of passengers allowed, and the fare. In 1922, there were at least two bus companies operating the Lima-Miraflores route along Leguía Avenue.⁴² At least one of the companies had begun operations in order to cover for insufficient supply while the trams were being renovated. By the late 1920s, there were several bus owners operating routes, each one with a few buses.

By 1931, the first attempt by the government to centralize the bus network failed. The government gave a monopoly to the recently created Metropolitan Company. But the concession, given in the middle of intense labor agitation in the country, was met with strikes fueled by a coalition of Marxist unions, bus and colectivo owners and petty capitalists (Uzzell 1987, 11). In response, the government cancelled the concession and allowed private bus companies to continue operating. Colectivos, which are automobiles covering semi-fixed routes, were legalized but only for routes not served by tramways.⁴³ Right from the early days of motorized transit, then, the service was decentralized and provided by relatively small companies, both with and without licenses. Some companies were awarded exclusive rights for certain routes, but this did not always prevent providers with no concessions to operate similar routes. Colectivo drivers remained operating illegally (Uzzell 1987, 12). In the 1940s, the Municipal Transport Corporation joined private providers as the first public bus company to serve urban routes.

In the early 1950s, the property structure had changed. Two thirds of the bus routes were controlled by three private companies (Quispe Cornejo 2007, 156). But later in the decade, the system began to enter in a severe crisis. In 1959, one of the companies went

⁴² MTC Archive, AVEN-Avenida Leguía 1921-1922.

⁴³ Resolución Suprema, 5/16/1931.

bankrupt, and most of the remaining ones followed the same paths until the system collapsed in 1965 (Uzzell 1987, 12), the same year the last trams went out of service.

The colectivos, in turn, remained in operation but with a change. *Microbuses* (small buses) replaced sedans, increasing capacity while capturing passengers from the bankrupt bus companies (Burga et al. 1990, 40–41). The flexibility of routes is key to understand this transition from trams and buses to small vehicles. The speed at which the city was growing, not only in population but in area, made it difficult for bus companies, let alone tramways, to adapt to. Colectivos, and later microbuses, were more easily adaptable to travel demands that were changing rapidly as new informal settlements were being formed in the peripheries. They were also more adaptable to the precarious road infrastructure of these areas.

The trajectory of transit in Lima, then, went hand in hand with its process of informal urbanization. Planning was overflowed by the magnitude of informal urbanization, which in turn complicated the establishment or durability of a planned transit network. An atomized and partially illegal transit system proved more effective in covering travel demand in new impoverished neighborhoods in the peripheries. And just like in the case of *barriadas*, cooperative action was followed by the state recognizing its effectiveness in covering the failures of both planning and the market. If neighborhood associations worked to provide local services, colectivo and microbus owner-drivers were organized in *comités* (Uzzell 1987, 12). In the next section I will explain how these conditions led to a change in paradigm in Lima's process of urbanization and infrastructure delivery.

2.5. 1965-1980: Delivering Autopia

President Fernando Belaunde's government (1963-68) engaged in a massive program of infrastructure provision. Laws passed in 1965 allowed the creation of tolls to fund new

roads.⁴⁴ Tolls allowed the government to finance the improvement and expansion of the Panamerican highway south of Lima.⁴⁵ While the land value capture and direct financing of infrastructure schemes remained, they were joined by this new source of funding. The introduction of tolls came from the realization that not only land owners benefiting from land value increases should pay for new infrastructure. At the same time, the new financing scheme was related to a technological change. The improvement of a local or arterial road has a relatively even impact on all the properties it faces. The impact of limited-access highways is different, determined by distance to exits rather than to the road itself. A simple distance-to-road chart, as used in previous road widening projects, would not work. Furthermore, while the usefulness of highways for increasing land values was not overlooked, their benefits for motorists are far more obvious than in the case of regular roads, as they promised circulation without interferences. It was seen as fair, then, that users of those infrastructures also paid for it. The tolls would be directly administered by the national government, and the funds collected would be used primarily to finance loan repayments and maintenance.

A municipal fiscal reform was also put in place. Between 1964 and 1965, the government passed laws that decentralized profit and property taxes in Lima.⁴⁶ The laws also allowed provincial governments to get loans by using those new sources of revenues as collateral. The reform allowed the municipality of Lima to increase revenues by 65% between 1964 and 1966, from 167.8 million to 276.5 million soles.⁴⁷ As important as the increased resources were their sources. Under the previous finance scheme a large portion of the funds invested in infrastructure would come either from property owners who benefited from the investments or from direct transfers from the central government. Now, new tax

⁴⁴ Laws 15752 and 15773 (1965).

⁴⁵ According to the original budget, 68 of the 84 million soles of investment would be covered by tolls. The rest would come from land value capture (Ministerio de Fomento y Obras Públicas, Oficio 343-65-M, 2/24/1965). The National Workers Retirement Fund loaned the government 40 million soles (Decreto Supremo 337-H).

⁴⁶ Laws 15109 and 15428.

⁴⁷ Official memoirs from Luis Bedoya Reyes' mayoral office.

sources would allow an increase to the general capital budget, giving the municipal government more leeway over where to invest in.

For now, however, the municipal government's idea was to deliver the automobile city envisioned in the 1950s. The reform allowed the municipal government to build Lima's first urban limited-access highway, the Paseo de la República Expressway.⁴⁸ The road used most of the right of way of the recently dismantled Lima-Chorrillos tramway, connecting the southern end of downtown with the northern end of Barranco, and going through San Isidro and near downtown Miraflores.⁴⁹ In 1965, the municipality got a USD 10 million loan from the Bank of America to finance this and other road projects. The loan would be repaid using the new sources of revenues along with land value capture.⁵⁰ The 3.7 km-long first section of the highway, going from just south of downtown to San Isidro, opened in July 1967 at a cost of 164 million soles, and was built by three different contractors.⁵¹

The highway was not among the priorities of the Arterial System for Metropolitan Lima, the later version of which had been approved in 1964. The plan had been produced by The National Planning Institute and ONPU in collaboration with the Municipality of Lima and the Junta de Obras Públicas de Lima.⁵² Instead, as mentioned in the previous section, the highway was projected by Ernesto Aramburu Menchaca, who had been Public Works Inspector at the Municipality of Lima before Luis Bedoya Reyes' administration.⁵³ While there were plans to build a road in that right of way since at least the 1930s, the idea of building it as a below-grade limited-access highway was Aramburu's. As Inspector of Public

⁴⁸ Vía Expresa del Paseo de la República, also known colloquially as Zanjón ('Big Ditch').

⁴⁹ The road used the right of way of the tram from Lima to Av. Benavides, in Miraflores. South of Av. Benavides it took a detour towards the east.

⁵⁰ Decreto Supremo 393-H, 10/9/1965. See also Official memoirs from Luis Bedoya Reyes' mayoral office, 15. The exchange rate at the time was 26.85 soles for US dollar.

⁵¹ The cost does not include eminent domain expenses. See Official memoirs from Luis Bedoya Reyes' mayoral office, 60.

⁵² Resolución Suprema 35-F.

⁵³ Bedoya Reyes was mayor of Lima from 1964 to 1969.

Works, Aramburu had proposed several automobile-oriented projects, such as an underground road in downtown that was never built, and a highway along the coastline, which was built after the Paseo de la República Expressway and was linked to it, connecting Lima with Chorrillos on a continuous limited-access route. The highway along the coast was later expanded towards the northwest using the land that had been excavated for the Paseo de la República Expressway. This also allowed the expansion of Lima's beach line.⁵⁴

Ernesto Aramburu Menchaca's was an architect that was designing high-rises at that time. His family, in turn, also had interests in the real estate industry. In 1967, his brother Carlos was selling office space in a building at Plaza Grau, which coincidentally was located at the northern tip of the Paseo de la República Expressway.⁵⁵ It would be an oversimplification to say that the expressway was a product of Aramburu's speculative interests. But there is a bigger picture that should be addressed. In the months coming to the completion of the expressway, the San Isidro council changed zoning in order to allow the area around it to become a major commercial center. By 1963, that part of San Isidro already concentrated 7% of Lima's retail jobs due to the recent opening of department stores (ONPU 1967, 87). Land property in Lima's expansion area was highly concentrated (Calderón Cockburn 2005, 133; Pereyra 2006, 95). A large portion of the land that would become San Isidro's commercial and financial center was part of the Hacienda Limatambo, owned by the Brescia family, who by 1973 owned 6.2% of the total urbanized area of Lima. The expressway was a transportation project as much as it was an urban development one. As *El Comercio* pointed out in its editorial on Monday, July 3rd, the road was largely being paid by itself through the increase in land prices, a portion of which returned to the municipality through land value capture.

⁵⁴ *El Comercio* 6/30/1969.

⁵⁵ Advertisement in *El Comercio* 6/26/1967.

The highway was widely celebrated by the press and the public, who massively attended its inauguration ceremony on July 1st, 1967. In its June edition, magazine *El Mundo* called the highway the ‘grandest municipal work in the history of Lima,’ and claimed that it was urgently needed in order to allow hundreds of automobiles to ‘break free from chaos.’ According to an editorial in *El Comercio* on Monday, July 3rd, the road ‘began an urban revolution in Lima.’ *El Comercio* was quick to point out the success of the road in alleviating congestion in parallel roads, even though it had been open only during one weekend. The newspaper also celebrated that the road would exclude all vehicles other than private automobiles and taxis, which would assure minimum traffic speeds and prevent accidents. While seeing it from the present it can be surprising that building an urban highway was partially justified on safety grounds, the statement must be contextualized. As Norton points out in *Fighting Traffic*, while the first urban highways had the primary objective of facilitating circulation, its proponents also argued that the segregation of pedestrian from automobile traffic would prevent accidents (Norton 2011, 236). Lima’s expressway was being built three decades after the period Norton talks, but being the city’s first experience with an urban highway it is understandable that the arguments were similar. Thus, the expressway brought a radical change in urban mobility. It was Lima’s first properly urban highway, excluding transport modes that until then were ubiquitous and cutting the city in two in a way no other piece of infrastructure had done before.

During the first weeks of operation, this change in urban space and mobility patterns resulted in road deaths, proving *El Comercio*’s prediction wrong. Only two days after its opening, Abel Jara Herrero was killed by a car driver while trying to cross the road.⁵⁶ A week later, another person died in similar circumstances.⁵⁷ *Tabloid El Comercio Gráfico* published

⁵⁶ *El Comercio Gráfico* 7/4/1967.

⁵⁷ *El Comercio Gráfico* 7/12/1967.

a story blaming pedestrians for their ‘recklessness’ (imprudencia) (see **Figure 7**). In fact, the road was built with very little consideration for pedestrians. There were no fences installed in the few sections that were at grade level, and there were no pedestrian bridges.⁵⁸ In practice, then, mode segregation depended upon pedestrians not walking through areas they could previously walk through safely. To cross at the point the first pedestrian was killed without having to walk through the highway, he would have had to walk an additional 650 meters to the closest bridge. By October 1968 the issue of road deaths in the new highway was so critical that newspaper El Comercio published an editorial about it. Rather than blaming pedestrians, the newspaper called for drivers ‘not to abuse the goodness of this work.’⁵⁹ The pertinence of the highway remained unquestioned.

⁵⁸ Pedestrians could only use bridges shared with cars, which were at some points up to 1 km apart. Pedestrian-only bridges were built in the spaces between them in the second half of 1968.

⁵⁹ El Comercio 10/11/1968.



Figure 7. *El Comercio Gráfico*, June 11th 1967. 'Express to death for the reckless.'

The road was meant to be completed in several phases that would extend it all the way to the South Panamerican highway through Chorrillos. At its final stage in 1971, however, it only reached Barranco (see **Figure 8**). A disconnected section that was supposed to become part of the extension to the Panamerican highway was also built in Chorrillos.⁶⁰ The

⁶⁰ *El Comercio* 10/7/1968.

expansion would be retaken in the 2010s,⁶¹ but now using a different right of way, through Surco, that was defined in the early 1970s.⁶²

The highway also had a median reserved for a rail line that was never built and would prove symbolic of this period. By the mid 1960s, it was becoming clear that Lima needed more than simply roads to offer good quality mobility to its residents. In 1965, Swedish firm Trafikkonsult had produced Lima's first mass transit study, which recommended rail and segregated bus lanes. But transit projects would have to wait. Financial constraints meant that highways, which could in turn be partially repaid by the increase in land prices, would come first. In a highly unequal and increasingly segregated city, improving access for upper- and middle-class drivers had the potential to increase land prices in a way improving transit access could not.

⁶¹ This extension is called Vía Expresa Sur, and is analyzed in chapters 3 and 4.

⁶² Resolución Suprema 266-73-VI-DU.

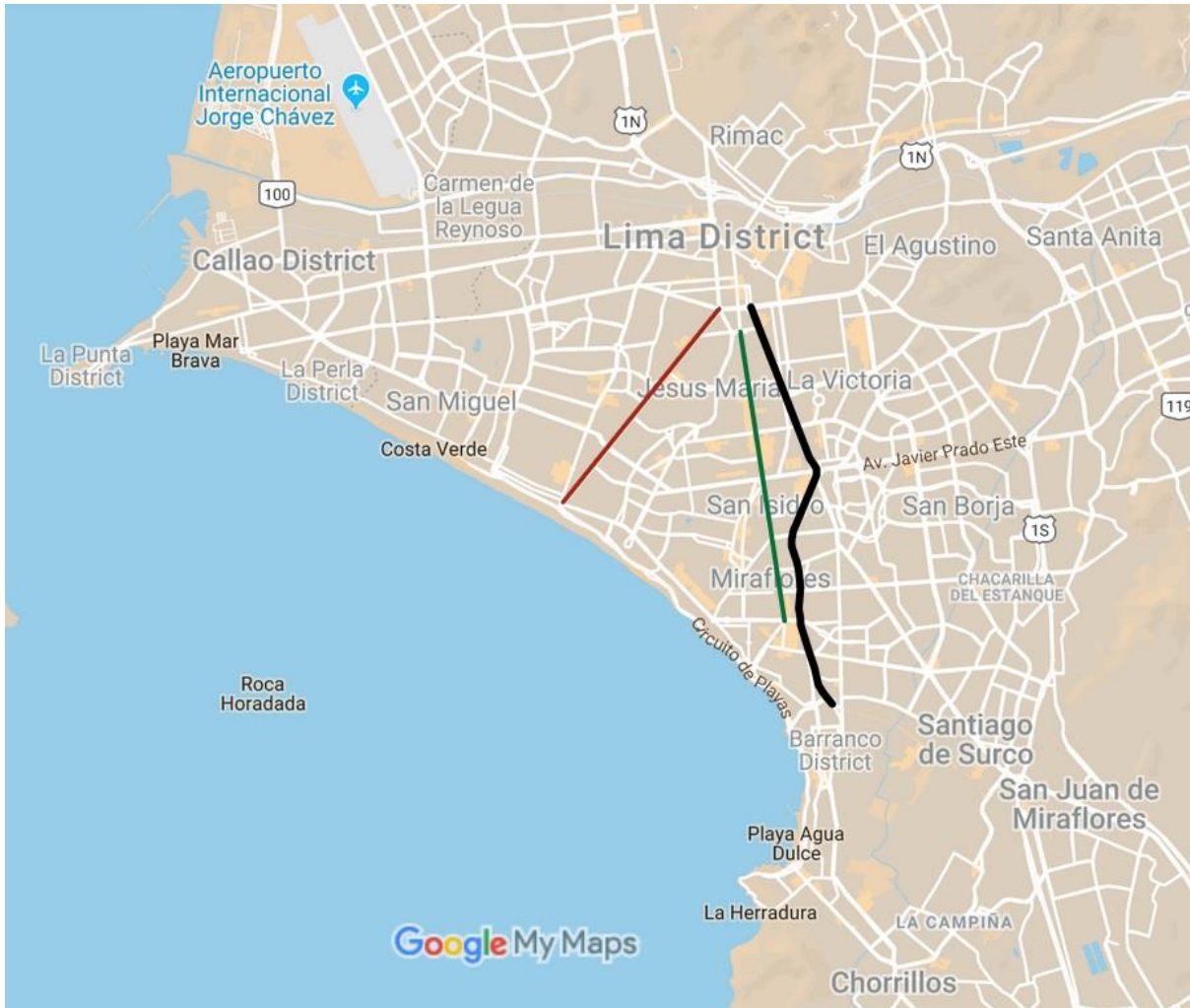


Figure 8. Brasil, Arequipa and Paseo de la República roads. Red: Av. Brasil. Green: Av Arequipa. Black: Paseo de la República Expressway. Base map from January 2019.

But the Expressway was not the only highway being built. In the late 1960s and early 1970s, parts of the Lima section of the Panamerican Highway were built as well. One of these was a ring road originally called Circunvalación. The road would link the southern and northern stretches of the Panamerican Highway. Because of Lima's geography, the highway would need to go very close to downtown, just across the Rímac river—there are hills north of that. In order to build a section of the road, one hundred families from *barriada* Mariscal Castilla in Rímac needed to be evicted.⁶³ The municipal government, in coordination with the

⁶³ El Comercio 7/10/1967.

Junta Nacional de la Vivienda, managed to remove enough families to get that part of the highway done. Meanwhile, another section of the highway was rerouted to prevent it from going through an urban area and potentially needing more displacements.

These episodes point to the first signs of a conflict between a city being built for cars and informal urbanization. Increasing autonomy and organizational strength in informal settlements would make it increasingly difficult to simply cut across them to build new roads. Furthermore, the pace at which Lima was growing made it clear that building roads would not be enough to deal with travel demand. While the tramway network was being dismantled, the municipality of Lima invested in rolling out a municipal bus company to complement existing informal and cooperative transit. The 1969 zoning code, in turn, included a zoning category meant to intervene informal settlements called Special Regulatory Zoning. This way, formal planning instruments were being adapted to the new reality of the city. Still, during Luis Bedoya's mayorship (1964-69), 40% of the capital budget was spent on highways.

A massive squatting that took place in April 1971 would present the government with a major challenge that would result in a dramatic transformation of the relationship between planning, the government and low-income dwellers (Stiglich and Lerner 2019). Hundreds of families took a plot of public land in Pamplona, just east of the Southern Panamerican highway.⁶⁴ That was the part of the highway built as a divider between the valley being urbanized by private developers and publicly-owned desert land. This meant that it was also built as a divider between middle-class and working-class southern Lima, as the latter were establishing themselves in *barriadas* and popular urbanizations in the desert. The Pamplona squatting, however, presented a challenge to this segregation pattern when its magnitude

⁶⁴ Pamplona is located in the district of San Juan de Miraflores, see Figure 8.

meant that some families began occupying privately-owned land on the western side of the highway. That land was in the process of being subdivided by developers, and part of it was close to a neighborhood inhabited by military families. During that time, Peru was under a military government (Juan Velasco Alvarado, 1968-75).

In contrast with military governments then in power in Latin America, Velasco's regime was progressive: by 1971 it had already nationalized oil companies using an anti-imperialist rhetoric and was implementing an ambitious agrarian land reform.

At first, the squatting was met with repression led by the Ministry of Interior, which led to a person being killed: Edilberto Ramos.⁶⁵ But after a progressive bishop and ally to the government, Luis Bambarén, was jailed, Velasco responded by removing the Minister of Interior and taking the lead in negotiating with squatters. To make sure the government had the upper hand in the negotiation, two nearby roads were blocked in order to prevent more squatters from coming and to control supplies. The fact that blocking two roads was enough to accomplish this reveals the deficit in infrastructure connecting the area to the rest of Lima. A few weeks after the initial squatting, it was agreed that most squatters would move to a new place especially conditioned to absorb vast amounts of people in need for housing: Villa El Salvador, 6 km south of Pamplona and 20 km south of downtown, and accessible through only one road, now called Av. Pachacutec.

The collectivist reforms the government sought to apply in other realms of life such as agriculture and manufacturing now had an urban counterpart. As had been happening with most other *barriadas* most of the labor required to actually build the neighborhoods would come from residents themselves. But the Velasco regime turned this collective labor into a

⁶⁵ While the military government was led by a progressive faction of the armed forces, there were some power disputes between progressive and conservative factions. The Pamplona incident led to the progressive side gaining power over urban expansion policies, which until then had been mostly dominated by the conservative side. See [Stiglich and Lerner \(2019\)](#).

rhetorical device that went along its collectivist discourse.⁶⁶ The political relationship between state and squatters, then, had changed (Stiglich and Lerner 2019). The transformation of the logic of infrastructure provision would follow suit.

Villa El Salvador was founded in desert land that could be reached from the rest of Lima through a single road, Pachacutec Avenue, which ended right at its entrance. In order to go inside Villa El Salvador, however, one had to walk on sand (see **Figure 9**). In 1974, the government began a 9.5km-long expansion of Pachacutec Avenue in order to facilitate transportation between Villa El Salvador and the rest of the city.⁶⁷

⁶⁶ The Belaunde government (1963-68) had already highlighted the role of collective labor in building infrastructure with the motto *El Pueblo lo Hizo* (The People Made It) and the *Cooperación Popular* program, but its project was not as nearly as ambitious as Velasco's.

⁶⁷ Decreto Supremo 042-74-VI.



Figure 9. Residents of Villa El Salvador push a bus out of the sand (1971). Image taken from http://www.amigosdevilla.it/Foto/1971_36.jpg

While highways were still being built at this time, the construction of the Villa El Salvador road signaled a series of changes that would become more evident in the 1980s. Velasco's government ended in 1975 after another coup d'etat, this time carried out by a conservative faction of the military. During the second half of the 1970s the country entered in a political and economic crisis, while an increasing number of sectors expected the new military government to be simply a transition to a democratic one. After massive mobilizations led by highly organized labor and increasingly autonomous neighborhood organizations, President Francisco Morales Bermúdez (1975-80) decided to step down and call for a Constitutional Assembly.

By the late 1970s, the rhetoric around urban problems and, particularly, around the issue of transport, had changed. In the 1960s, the dominant rhetoric was one of improving automobile circulation and connecting the middle- and upper-class urban areas with downtown. While some investments sought to improve road infrastructure in the peripheries, this was seen as secondary or simply as something to be addressed locally rather than through a metropolitan lens. Similarly, the municipality of Lima had created a municipal bus company in 1965, but investment was never nearly as important as that directed to roads. The process of informal urbanization, which in the 1970s was largely based on the occupation of deserts and hills far from downtown and with precarious infrastructure, brought a call for a transformation in the financing, logic, and priorities of transportation infrastructure delivery.

2.6. 1980-1990: Public Transit for the People

When Eduardo Orrego became mayor of Lima in 1980, priorities had already changed. Municipal governments were now talking specifically about transport (meaning mainly public transit) rather than subsuming it within the more broadly defined ‘public works,’ which had translated mostly into roads. If the 1965 study by Swedish consulting firm Trafikkonsult had recommended the introduction of segregated bus lanes in central areas, by 1980s the first one of these had been open. The median of the Paseo de la Republica Expressway, originally reserved for a metro line, was since 1972 (Dall’Orto 1989, 6) a segregated lane for buses. By 1980, Enatru, a national bus company created in 1976 to replace the municipal bus company, was in charge of the transit corridor.

These changes came in the midst of a process of decentralization and democratization. Under the principles established in the 1979 Constitution, new responsibilities and revenue sources were devolved to municipal governments (Calderón

Cockburn 2012, 270–72). 1980 saw the first presidential election since 1963 and the first municipal one since 1965. In 1985 a fiscal reform created a municipal tax that considerably increased local public resources (Calderón Cockburn 2012, 298). In 1986, toll revenues were also decentralized, and a municipal company was created with the objective of managing those funds: Emape (*Empresa Municipal de Peajes* or Municipal Toll Company) (Jiménez Alemán 2014, 222). This company would later become the main actor for metropolitan infrastructure delivery through public procurement.

The transformations in rhetoric and practice in transportation planning must be understood within the changes in development discourse. In the 1970s the World Bank introduced its ‘basic needs’ approach. Rather than simply promoting jumps in productivity through large-scale investments, the Bank acquired an interest in reducing extreme poverty. One of the ways of doing this was by improving urban infrastructure (M. R. Goldman 2014, 56).

In the 1980s, poverty discourse had entered all realms of municipal policy. Their contribution to poverty reduction was cited by Mayor Orrego’s office as one of the main reasons for investing in certain roads. These projects were financed with World Bank loans, and often targeted peripheral neighborhoods rather than the previously prioritized central areas. Orrego defined a ‘transportation sub-project’ which would be largely implemented by the following two administrations and included new segregated bus lanes along with investments in specific intersections. In contrast with previous plans, this sub-project did not include any full-scale urban highways. The Metropolitan Road System plan still included them, as it has always done—as mentioned in the introduction, road planning in Lima has been based on the premise of ever expanding road capacity rather than managing traffic. But the fact that a ‘sub-project’ that would effectively become practice for almost a decade did not include highways reveals a change in immediate priorities.

In the 1980s, for the first time in Peruvian history, left-wing parties were strong enough to contest major offices. In 1983, Alfonso Barrantes from the United Left front was elected mayor of Lima (1984-86) with massive support from neighborhood organizations. The left also won 20 of the 41 district mayorships in the city, most of them in low income districts. The Barrantes mayorship brought a decisive change in infrastructure priorities in Lima. If during the 1960s investments done by the provincial government had been directed, modally, to automobiles, and spatially, to central areas, Barrantes prioritized public transport and the peripheries.⁶⁸ The fact that the rate of car ownership stagnated might have also influenced the change in priorities. Between 1981 and 1993, the percentage of homes that owned at least one car in Lima-Callao fell from 16.4% to 14.6%.⁶⁹

Of a total 490 million intis⁷⁰ spent in infrastructure during Barrantes administration, most of which was transport-related, over 240 million were spent in peripheral, low-income districts. Furthermore, 90 million were spent in the working-class inner-city districts of Cercado, Rimac, La Victoria and Breña, while another 90 million were spent in multi-district investments.⁷¹ The spatial distribution of investments marked a stark contrast with the 1960s, when the municipal government invested a large portion of capital funds in a highway connecting the wealthy near South with downtown. The change can be explained by a combination of a change in priorities and the availability of finance coming from international development sources, particularly the World Bank.

In his official memoirs Barrantes explained that his government looked for the ‘prioritization of the public transit system, selecting exclusive corridors for mass transit, with

⁶⁹ The absolute number of homes with a car did grow, from 136,280 to 222,419, while the number of homes went from 828,896 to 1’518,789. Sources: 1981 and 1993 censuses.

⁷⁰ Inti was a short-lived currency used from 1985 to 1991, which was a period characterized by very high levels of inflation. In 1985, 1 inti replaced 1,000 soles (‘soles de oro’). In 1991, 1 sol (‘nuevo sol’, PEN) replaced 1’000,000 intis.

⁷¹ Official memoirs from Alfonso Barrantes Lingán’s mayoral office.

the objective of facilitating the movement of the people in areas with great demand for mobility.’ His government planned the construction of segregated bus lanes in some arterials in downtown and radials that connected the central area with the peripheries. Some of these were built during his government and the following municipal administration. Emancipación, the 2 km-long road in downtown Lima that Aramburu Menchaca had imagined in the 1950s as a below grade expressway for cars, was converted into a bus-only corridor in 1986 (Dall’Orto 1989, 7). The Barrantes administration also built a total 130 km of arterial roads and 60 km of local roads with sidewalks in the peripheries.⁷² To facilitate this while the country was enduring economic hardship, the municipality rolled out a program to provide jobs to the unemployed.

Barrantes ran for reelection in 1986 and was contested by former mayor Luis Bedoya Reyes (Partido Popular Cristiano, PPC) and by Jorge del Castillo (APRA).⁷³ One of the main topics of discussion was related to transportation and reveals how much the terms of the debate had changed compared to the 1960s. By 1986, it looked like the project to build an urban rail line was becoming a reality, as president Alan Garcia (APRA, 1985-1990) took it as one of his priorities. As mentioned above, when the Paseo de la Republica Expressway was built by the previous Bedoya administration, the median was reserved for rail. Conservative candidate Bedoya proposed to build Lima’s first metro line using that right of way. But the route was criticized by candidate Del Castillo as elitist: the Expressway went through middle- and upper-class districts, connecting downtown with Miraflores. According to Del Castillo, ‘Bedoya wants to take the train to the sectors of the Expressway, to sectors that have always had mobility.’ Instead, he proposed to build the train as ‘the creation of a

⁷² Official memoirs from Alfonso Barrantes Lingán’s mayoral office, 72.

⁷³ PPC stands for *Partido Popular Cristiano* (Popular Christian Party), a conservative party that was founded in 1966 by dissidents of the more moderate Christian Democrat Party, led by Bedoya Reyes. APRA is *Alianza Popular Revolucionaria Americana*, which was then a center-left party.

mass transit line for the popular zones of Lima to reach the center of the city' (Tello 1986, 276). Incumbent candidate Barrantes, in turn, was ambiguous about the rail project. He wanted the train to be subordinated to the city's plans rather than the other way around (Tello 1986, 312). Among his more immediate proposals was the construction of 140 km of segregated bus lanes.

The election was won by Del Castillo, who partially continued Barrantes' program of segregated bus corridors with just over 8 km in four arterials (Quehacer 2014, 20; Dall'Orto 1989, 7). The Del Castillo administration also invested in road infrastructure, mainly to connect the central area of Lima with the *barriadas*.⁷⁴ It also built the first phase of the Ramiro Prialé highway, a road to improve the connectivity between Lima and the central highlands. The highway began on the intersection with the Evitamiento highway and went 10 km to the east.⁷⁵

But Del Castillo's main transportation project was the metro, called 'Electric Train', which was facilitated by the support offered by president Alan García, who was from the same party and also took the metro as one of his pet projects. In its first phase, the train would connect the eastern end of downtown with Villa El Salvador, going through the city's main wholesale market, located in La Victoria. In 1987, the country entered a severe economic crisis that combined stagnation and hyperinflation, affecting the funding of the project. By 1990, only a 2 km-long portion in its southern end was fully completed. By 1995, the line was 9.2 km long. But it was inoperative in practice, as it did not reach employment centers that could justify running the trains permanently—the wholesale market and the major commercial center of Gamarra (Chion 2002) were on its planned route, but far from the

⁷⁴ By the late 1960s, the name *barriadas* had been replaced in official discourse by the more positively-oriented *Pueblos Jóvenes*, or 'Young Towns'.

⁷⁵ The further extension of this road is part of one of the PPP projects analyzed in this dissertation, called New Roads of Lima.

part that was actually built. Another 11 km were partially built, and its incomplete pillars that did not support any rails became a symbol of a failure. For the next decade, the failed metro would become the last mass transit undertaking in Lima.

The 1980s remained an exceptional period in the history of transportation infrastructure in Lima. One that, in contrast with the rest of the century, had the delivery of public transit infrastructure for the majority of the population as the priority. Furthermore, the idea that the improvement of road infrastructure in the peripheries was a central role of the metropolitan municipality was consolidated at this time.

2.7. 1990-2008: Neoliberalism and the crisis of Lima's transportation system

Along with the economic crisis and spiraling political violence came the collapse of Peru's party system (Tanaka 1998; Lynch 1999). In 1980, Maoist insurgent group Shining Path had begun a war against the state in Ayacucho, in the southern highlands. In the process, it targeted not only state agents but peasants and left-wing leaders that did not adhere to their highly dogmatic ideology. Their extreme use of violence was met by a similar response by democratic governments, causing thousands of deaths of mostly Quechua-speaking peasants in the rural south, as well as urban labor and neighborhood leaders. By 1990, Shining Path had already begun its 'final offensive' towards the capital city, infiltrating neighborhood leaderships in the peripheries and blowing car bombs at banks, electricity distribution centers, and other strategic targets.

In this context, broadcaster Ricardo Belmont (1990-1995) was elected mayor of Lima running on an independent ballot. In 1990 another independent candidate with no experience in formal politics, engineer Alberto Fujimori, was elected president. Fujimori ran on a platform against the structural adjustment policies proposed by conservative Mario Vargas

Llosa, which got him the support of the left and APRA for the ballotage against him. Once in power, however, Fujimori implemented the very economic policies he had sternly opposed in the campaign.

Just after taking power, Fujimori's regime implemented drastic macroeconomic policies with the objective of stabilizing the economy. The program was based on four principles: eliminating the fiscal deficit, establishing monetary controls, liberalizing the exchange rate, and correcting public prices (Parodi and Trece 2000, 265). The policies were successful in reducing inflation from 7649.7% in 1990 to 139.2% in 1991 and 56.7% in 1992.

Stabilization policies were followed by structural reforms that dramatically changed the relationship between the state and private capital. By 1991, the macroeconomic objective of stabilizing the economy was joined by efforts to attract private investment in order to spur economic growth. The reforms largely followed the Washington Consensus. The government reduced import taxes, liberalized interest rates, cut labor rights, and sold state assets. A series of laws offered foreign investors legal stability for contracts, promoted the sale of state enterprises, relaxed controls in order to promote private investment, and cut labor's collective bargaining power. Decreto Legislativo 758, from November 1991, sought to promote private investment in public services. That would bring an influx of private investment, but did little to retake the state's capacity to spend in infrastructure. Instead, after an initial phase of roll back neoliberalism, the government began rolling out institutions with the objective of allowing private investment to cover for areas previously funded through public budgets. In 1996, the first package of laws was complemented by Decreto Legislativo 839, which created a government organization dedicated specifically to design and lead processes of privatization and concession of public works (Benavente and Segura Vasi 2017). The new model of infrastructure finance was established: rather than the government financing and building roads, it would now give incentives to investors. Instead of having a state that could

build, the idea was to build a state that could negotiate concessions. The new economic model was inscribed in a new Constitution, approved in 1993 with dubious public support,⁷⁶ which established that the state would now have a ‘subsidiary role.’ According to article 60, the state could carry out ‘subsidiary entrepreneurial activity, directly or indirectly,’ only if it was authorized by specific law on the basis either ‘high public interest’ or ‘evident national convenience.’

The reforms also had an impact on public transit. The national government liberalized the transit sector. From then on, any individual could provide transit services by applying for a license. At the same time, the government allowed the import of used vehicles. These changes came at a time when thousands of public workers were being laid off following the privatization of state enterprises. The unemployed could use their severance pay to buy a used van, get a route license, and rent it to a driver or drive it themselves. The streets of Lima and other cities were flooded by *combis* (vans). The fleet of vehicles providing transit in Lima jumped from around 10,500 in 1990 to 47,000 in 1999. The number of cars offering taxi services without a license also increased considerably, which led to the number of taxis (formal and informal) in Lima going from 10,000 to 100,000 over the same period (Gómez 2000, 10–11).

To serve as a social security device was not the only objective of the policy. By the late 1980s, transit was in a crisis of limited supply. In peak hours people formed large lines to board buses. Fares were frozen with the state providing no subsidies to private companies. Something had to be done. Hernando de Soto and his neoliberal think tank Instituto Libertad

⁷⁶ In April 1992, Fujimori threw a coup d’état against Congress (the coup is often remembered as the *auto-golpe*, or self-coup). Using military force, his government closed Congress and, after pressure from governments from other countries, called an election for a constitutional assembly. In 1993, the new constitution written by the assembly was approved on a 52%-48% referendum that was boycotted by some political sectors. Voter turnout was unusually low in both elections (72% and 70%, respectively) despite voting being mandatory as in all elections in the country.

y Democracia (ILD, Liberty and Democracy Institute) understood this, and since the 1980s took transit as one of their flagship topics. In January 1990 ILD published a book that identified informal transit as the response to the ‘incapacity of the efforts of the state and traditional businessmen’ (Burga et al. 1990, 11). The authors idealized informal transit providers as proof of the ‘great entrepreneurial capacity of the Andean man’ (Burga et al. 1990, 11). De Soto was an influential figure right from the beginning of Fujimori’s regime (Parodi and Trece 2000, 252), and was later key in designing another urban program that sought to provide land titles to urban dwellers (T. Mitchell 2009).

After dreaming of massive investments in transit infrastructure in the 1970s and 1980s, transit was now being left to private initiative to consolidate a system that had been growing under an extralegal normativity (Burga et al. 1990, 121–55). Rather than planning a transit network, the role of the local government would now be to approve licenses as they were being requested by individual operators. Enatru, the national bus company formed in the 1970s, was dismantled, and their routes given in concession to private companies.⁷⁷ Supply and demand, rather than planning, would define Lima’s transit system. What had been informal became formalized, albeit not planned.

While investment in public transit was all but eliminated, the municipality of Lima used its limited resources to keep improving automobile-oriented infrastructure. In the early 1990s, the municipality built a cloverleaf interchange in the intersection of Av. Javier Prado and the Southern Pan-American Highway, a public work that became a symbol of Ricardo Belmont’s mayorship. Later in the decade, another cloverleaf intersection of the Pan-American Highway—Evitamiento ring road, the Trébol de Caquetá, was improved. But given limited resources compared to the 1960s, these were localized investments rather than new

⁷⁷ Lima’s current transit system, which is largely shaped by these reforms, is discussed in chapter 4.

urban highways. The shortage of municipal resources was aggravated with the fiscal centralization brought in 1993 by Decreto Legislativo 776, which reduced Lima's yearly revenues from PEN 186 million to 84 million (Blest García 2005, 7). Between 1990 and 2002, the municipality of Lima invested just USD 300 million in infrastructure construction. With such a limited budget, the municipality could not go beyond small, specific investments: improving intersections through underpasses, overpasses and interchanges, following the logic embedded in Lima's road plans that called for ever expanding automobile-oriented infrastructure. The largest project after the cloverleaf interchanges of the 1990s was a 5.5km-long mostly below-grade urban highway along Javier Prado completed in 2002 at a cost of PEN 60 million (USD 17 million).

By the late 1990s, it was becoming clear that, while liberalization solved the problem of insufficient supply, it aggravated other, likely more severe issues. The atomized nature of operations led drivers to compete for passengers on the road. The demand that could be covered by one bus running every few minutes was now being sought by several small vehicles running even shorter headways. This, in turn, brought congestion in areas with high demand and insufficient infrastructure to serve all the small vehicles. The sheer number of vehicles also made it more complicated to make them follow established routes and even stops. Combis would stop in every corner as requested by passengers, which reduced their potential efficiency.⁷⁸ In 1999 the municipality of Lima declared its transport sector to be 'in emergency' and began plans to create a more centralized integrated transport system. Mayor Andrade (1996-2002) announced that, if elected for a third term, he would jumpstart the reform by building a BRT, which would follow the example of the recently inaugurated system of Bogotá. He was contested by Luis Castañeda, who had been manager of Emape in the 1980s. Castañeda raised the offer: rather than a BRT, he would build a rail system.

⁷⁸ The system is explained in length in Bielich (2009).

Castañeda won the election on a small margin, and in 2003 began what would be his first of two consecutive terms (2003-2010).

By the mid-2000s, Peru was going through an economic boom that had a positive effect on municipal finances. Between 2006 and 2010, municipal revenues increased at an annual rate of 19.3%.⁷⁹ This was still not enough to finance a rail network, but allowed Castañeda to fulfill Andrade's promise. Plans for the BRT, after all, were already in place. Both the World Bank and the Inter-American Development Bank (IADB) had been collaborating with the municipality of Lima since Andrade's administration by producing studies to support the idea. In 2004, the municipality of Lima created Protransporte, a municipal agency that would be in charge of planning the city's BRT system.⁸⁰

In order to finance the BRT and other public works, the municipal government got USD 90 million in loans from the World Bank and the Inter-American Development Bank. This funding was complemented with loans from local banks and the implementation of a municipal bond program.⁸¹ Between 2006 and 2009, it issued USD 80 million in seven packages of 7-year bonds secured by the revenue stream provided by existing tolls (Blest García 2005; Perú: Ministerio de Economía y Finanzas 2010). The municipality of Lima was directly redistributing resources from cars to transit. The BRT was finally completed, after considerable cost and time overruns, in 2010.

The bonds were being issued at a time when toll revenues were increasing at an annual rate above 10%.⁸² Unsurprisingly given the strength of the revenue source the

⁷⁹ <https://www.bvl.com.pe/hhii/T00006/20110608204701/CLASS32MML322010.PDF> (accessed 1/29/2019)

⁸⁰ Ordinance 732-MML, (2/12/2004).

⁸¹ <https://larepublica.pe/politica/289840-bonos-municipales-para-lima-metropolitana> (accessed 1/29/2019)

<https://larepublica.pe/economia/257447-lima-emite-bonos-por-s-40-millones> (accessed 1/29/2019)

<https://andina.pe/agencia/noticia-concejo-lima-emite-bonos-s-40-millones-mercado-valores-para-financiar-grandes-obras-244948.aspx> (accessed 1/29/2019)

⁸² Between 2001-2010, the average annual growth rate was 9.9%, but the rate was growing from year to year. For 2005-2010 it was 11.9%. See

<https://www.bvl.com.pe/hhii/T00006/20110608204701/CLASS32MML322010.PDF> (accessed 1/29/2019)

program depended upon, they were a success. In 2010, an audit from local credit-rating agency Class & Asociados S.A. gave AAA ratings with stable perspective to all bonds issued under the program.⁸³ If the original bonds were meant to complement financing for the BRT, subsequent bond issues were mostly used for automobile-oriented infrastructure. Toll revenues were so high that they became the main municipal source of revenues to finance road infrastructure not only in the highways that produced them, but all over the city. Mayor Castañeda, who had been head of Emape in the 1980s, soon made himself a name as a mayor committed to public works. During his mayoralship, he built several viaducts, overpasses and interchanges, the most expensive of which was the interchange at the intersection of the Northern Pan-American Highway and Av. Habich, completed in 2008 at a cost of PEN 93 million (USD 32 million) (Chávez 2008).⁸⁴

In the midst of the 2008 economic crisis, the national government dictated policies to promote economic recovery. One of the reforms was an overhaul of the infrastructure concession system. While the country had already been counting on private investment as a key participant in building infrastructure, it lacked a consistent legal framework for public-private partnerships, especially at the local level. At the national level, Proinversión, created as Promcepri in 1996, was the sole entity in charge of conducting concessions. But the legal framework was weak, as it did not regulate the whole project cycle, while the guidance it provided for project selection and risk allocation was deemed insufficient (Benavente and Segura Vasi 2017, 31). For local governments the framework was even weaker, with each project being led by an ad-hoc committee rather than a centralized agency.

⁸³ <https://www.bvl.com.pe/hhii/T00006/20110608204701/CLASS32MML322010.PDF> (accessed 6/4/2019).

⁸⁴ The interchange was later proved largely useless, as design flaws turned it into a massive bottleneck. See <https://elcomercio.pe/lima/by-pass-habich-8-anos-congestion-mal-diseno-dron-147762> (accessed 1/24/2019). The bonds were used to finance other additions to automobile-oriented road capacity, as well as a below-grade bus corridor in Av. Grau.

The 2008 law of public-private partnerships provided a specific framework for PPPs, and allowed subnational governments to create agencies especially dedicated to promote private investment. The new framework established criteria for risk assessment and project selection, and set new rules that would guide the whole life cycle of projects. Some of the main reasons to approve the reform, according to the official line, was that it would spur economic recovery through the promotion of private investment, and that it would allow the country to breach its infrastructure gap.⁸⁵ The new framework promoted the participation of the private sector through ‘private initiatives’ (Velásquez 2012), a particular scheme based on consortia submitting unsolicited bids for projects that could be ‘self-financed’, that is, financed entirely through user fees. According to Juan Carlos Morón, a lawyer whose firm has advised consortia in carrying out PPPs via unsolicited bids, the principles of the scheme are based on recognizing the ability of ‘members of the community to identify priorities and to propose ideas for infrastructure or public services that have been sufficiently studied (...) according to the framework of a new relationship between civil society and the state’ (Morón Urbina 2005, 277). It is a rhetoric that mimics that of the rise of participatory approaches to urban governance (Caldeira and Holston 2007), but with a caveat: in order to participate you would need to prove that you are able to raise millions of dollars. Here, rather than the more traditional conceptualization of civil society as a ‘third sector’ outside the state or for-profit capital, it is merged with the latter. Furthermore, as we will see in the following chapters, the participation of consortia is exclusive: the process of planning and negotiating contracts is actually based on the exclusion of citizens, as the information this process produces is protected as intellectual property. It is a participatory approach for capital rather than for citizens.

⁸⁵ Exposición de motivos, Decreto Legislativo 1012 (2008). *Exposición de motivos* is a document from Congress that explains the reasons for passing a law.

The use of tolls to finance public works using 7-year bonds was all good, but according to this view it was not as good as using private finance to bring 30 or 40 years of toll revenues into the present. As I will show in the next chapter, this is the legal framework that allowed the municipal government of Lima to abandon its bond program and instead commit decades of future revenue sources into the construction of highway megaprojects with private finance.

Chapter 3: The Political Economy of City Unplanning

3.1. Intro

In this chapter, I address one of the central questions of the dissertation: How does the availability of private finance transform infrastructure investment priorities at the local level? I will show that the introduction of private finance has a deep impact in the planning process by shaping what can be invested in, and in what ways. The decision to invest in highway projects is made possible by a process which I call *unplanning*. By unplanning I mean that the state deliberately sets out to transfer planning responsibilities it was previously assumed to have to the private sector, while dismantling its own previous planning decisions. By doing so, it allows the private sector to identify infrastructure projects that can be capitalized by private investors. Private firms can submit unsolicited proposals for those projects.⁸⁶ The evaluation phase is also outsourced to private firms, and follows mainly financial criteria. From influencing the design of the PPP legal framework through reports that are taken as value-free technical knowledge by lawmakers, to the actual planning of specific projects, the private sector takes a front seat in planning the infrastructure of Lima.

This mode of delivering infrastructure challenges widely-held assumptions about how public-private partnerships work—or should work. Rather than the state planning a project and then deciding that the best way of implementing it is by seeking finance and implementation capabilities in the private sector, it is the financing aspects and the capabilities of private companies that largely define which project gets built in the first place. The state maintains a role in the process. However, that role is not to plan. Instead, it is to set out the conditions for private capital to find those opportunities, and to negotiate the

⁸⁶ According to World Bank estimates, between 10% and 30% of infrastructure projects in low- and middle-income countries are unsolicited. The Bank has published reports recommending its use only as an exception because of its several shortcomings, including a propensity to prevent competition. See <http://blogs.worldbank.org/ppps/managing-unsolicited-proposals-infrastructure-5-key-questions-governments> (accessed 3/8/2019).

proposals. The state still has some discretion, but only responding to interventions identified as profitable by the private sector. Unplanning is the way of creating those conditions by allowing private enterprises to find profitable projects. The profitability of the projects, however, is often reliant on either guarantees provided by the state or on the transfer of existing revenue sources. In the end, it is the ability of private firms to bring those future revenues to the present that defines what is done.

We should be careful not to think of unplanning, however, as not planning, or as a retreat of the state. Instead, the state is transformed and assigned new responsibilities in order to allow the private sector to deliver infrastructure. These responsibilities take various forms. First, the state actively creates a legal framework that seeks to reduce uncertainty for private investors, as in the case of the 2008 PPP reform discussed in chapter 2. The reform standardized criteria, set timelines, and improved the information provided by the state for investors. This incentivized them to submit unsolicited bids to implement PPPs.⁸⁷ Second, the state actively seeks those investors, often beginning talks some time before the formal unsolicited proposals are submitted. These talks are joined by private consultants, who often participate in evaluating the proposals. These consultants often work at the same time for the government and for private firms, although in different projects to avoid legal conflict of interest issues.⁸⁸ Projects are often conceived through this exchange of ideas between public officials, investors, construction firms and consultants. As we will see, these projects are often consolidated in project shortlists published by the local government. Third, the state guarantees investors the right of way, which often includes inhabited areas. It does so by a combination of changes in land use regulations and the use of eminent domain. What the state does not do is to actually decide on its own what project should be prioritized. It may suggest

⁸⁷ Interview #11, with consultant C1 (7/23/2016).

⁸⁸ Interview #28, with former Finance Minister Alonso Segura (1/25/2018).

some projects, but it is the willingness to finance it by private investors that ultimately matters. It is a combination of the interests of private investors and builders, and the willingness of local decision-makers to go through with those interests that defines what gets done. Furthermore, it is precisely by giving the private sector leeway in deciding what to do that the local government manages to attract investment. It is this process of giving leeway by providing all sorts of guarantees while not actively deciding what to invest in, often involving the dismantling of previous planning decisions, what I call *unplanning*.

3.2. Infrastructure Gap

According to ECLAC, the United Nations Economic Commission for Latin America and the Caribbean, the concept of *infrastructure gap* can be defined in two, non-exclusive ways. On the one hand, a vertical gap, which ‘has to do with internal factors (...), when the domestic supply and demand for infrastructure trend differently.’ And on the other hand, a horizontal gap, which is the difference between current the state of infrastructure in the country being studied and either that of another country or a specific (desired) level of coverage (ECLAC 2011).

One of the official arguments for implementing the 2008 reform of the PPP legal framework was that Peru needed to close a very large infrastructure gap. Lawmakers cited a report commissioned by the Association of Private Firms for Public Services (Adepsep, now AFIN)⁸⁹ and written by the think tank Peruvian Institute of Economics (Instituto Peruano de Economía, IPE). Infrastructure gap reports are published periodically, often commissioned by industry guilds, and written by think tanks and universities. The methodology is rarely

⁸⁹ Adepsep then changed its name to Asociación para el Fomento de la Infraestructura Nacional (Association for the Promotion of National Infrastructure, from now on, AFIN).

consistent from one report to another, so theoretically reports cannot be compared with each other. But some traits of the methodology are often repeated.

The 2005 report, cited in the 2008 reform, combined traits of the horizontal and the vertical gap. To estimate the road infrastructure gap, it combined three factors and consolidated them into its monetary value. The first factor was the road concessions that had been approved together with those that ‘[they] are thinking about handing over in the short- and to mid-term.’⁹⁰ The second were the Ministry of Transport plans for building roads through public procurement. And the third, an own estimation of the level of investment required for existing roads to be in good condition, regardless of whether they are included in an existing or potential concession or a plan. The recommendation expressed in reports, especially for the first component, followed a circular logic. The projects that had either been earmarked or judged by the writers to be in the process of being adjudicated constitute part of the gap. The report then recommended speeding their execution or their adjudication as a way of closing such gap. Under the same logic, planning a new project would increase the gap rather than reduce it. That should not be a surprise: the reports commissioned by the infrastructure industry can be easily measured in dollars because it is equal to what private firms—precisely those that commission the report—are planning to invest. If they have a new project on the way, the gap increases. This logic is contained in the way the report defined the infrastructure gap as

The lack of *investments* to reach certain goal or to comply with certain infrastructure requirements, which could be because of the use of installations in suboptimal condition, and/or the difficulty in satisfying current and future demand. This concept is static because it does not derive from an investment program for a certain period of time. Rather, it is the aggregate of the total investments that must be done ‘today’ to comply with the established goals. (Instituto Peruano de Economía 2005, 11, emphasis mine)

⁹⁰ ‘se piensan entregar en el costo y mediano plazo’

The fact that these reports are written by consultants hired by the construction companies interested in winning contracts should not be understated. In an interview with Alonso Segura, former Finance minister (2014-16), he mentioned that reports tend to be biased. The bias can lie on the magnitude of the gap or on the types of projects that are identified as part of it, in a way that fits the interests of the firms paying for the report. He also told me that while he worked for the national government he tried to get the state to do its own report, but ‘there was not enough time.’ As we will see, instead of an infrastructure gap report, he reformed the PPP model in a way that required each government sector to publish an infrastructure investment plan before carrying out PPPs.

Other technocrats at the ministry of Finance have been less bothered by the fact that the reports were done by interested parties. In a public forum on PPPs hosted by a congressman in April 2017, Adolfo Pulgar, a legal advisor on PPPs for the ministry of Finance, highlighted the benefits of PPPs as a way of closing the infrastructure gap.⁹¹ He cited a report done by AFIN which put the gap at USD 160bn. When during the Q&A I asked how such gap was estimated, he replied that he could not answer that question. He added that it would be better to pose that question to AFIN rather than him.

After the publication of these reports, it is common to see headlines in the press informing the public about the urgency of closing the infrastructure gap. In October 2012, *El Comercio* ran a story with the title *Infrastructure gap is worth USD 88 billion*. Similarly, *La República* titled in September 2015 that *Lima Chamber of Commerce indicates that the infrastructure gap is worth USD 108 billion*. Three months later, the same newspaper announced, quoting a Graña y Montero⁹² board member, that ‘To close the infrastructure gap, private entities are needed.’ In March 2016, another headline in *La República* read *The*

⁹¹ There was a change in government in July 2016. Right-wing Pedro Pablo Kuczynski succeeded centrist Ollanta Humala.

⁹² Graña y Montero (GyM) [BVL: GRAMONC1, NYSE: GRAM] is the largest Peruvian construction conglomerate.

*infrastructure gap would be USD 160 billion by 2025. As we see, these headlines tend to highlight the billions of dollars in private investment that would be needed to close the gap. Failing to do so, we are often told, would confine Peru to unbearable logistic costs and setbacks in competitiveness. When looking at the detail in the reports, however, it is clear that the reports' effect as a source of impact headlines is far more important than its usefulness as a guide for where and what to invest in. According to the 2005 report, it would have cost USD 58 million to close Lima's road infrastructure gap. In the five years that followed the reform that cited that report, however, Lima attracted enough private investment in road infrastructure to close that gap twenty four times: during those years, the Metropolitan Municipality of Lima (MML) signed three Public Private-Partnership (PPP) contracts worth a total USD 1.52bn (see **Table 2**). Those contracts were assigned to the construction of new highways and to the improvement, maintenance, and operation of existing ones (see **Figure 10**).*

	Yellow Line	New Roads of Lima	Southern Expressway
Name in Spanish	Línea Amarilla	Vías Nuevas de Lima	Vía Expresa Sur
Declared investment	USD 571 million	USD 590 million	USD 230 million
Leading corporation	OAS	Odebrecht	Graña y Montero
Special purpose vehicle	Línea Amarilla SAC	Rutas de Lima SAC	Vía Expresa Sur SA
Year contract was signed	2009	2013	2013
Period of concession	30 years	30 years	40 years
Length of new highways	9 km	19 km	4.5 km
Length of existing highways	15 km	95.6 km	0

Table 2. Characteristics of the three projects. For simplicity, only the basic characteristics of the projects according to their original contracts have been included. The Yellow Line has been changed through addenda that extended the period of concession to 40 years and increased the level of investment to USD 700 million. Both OAS and Odebrecht have sold the majority of their shares.

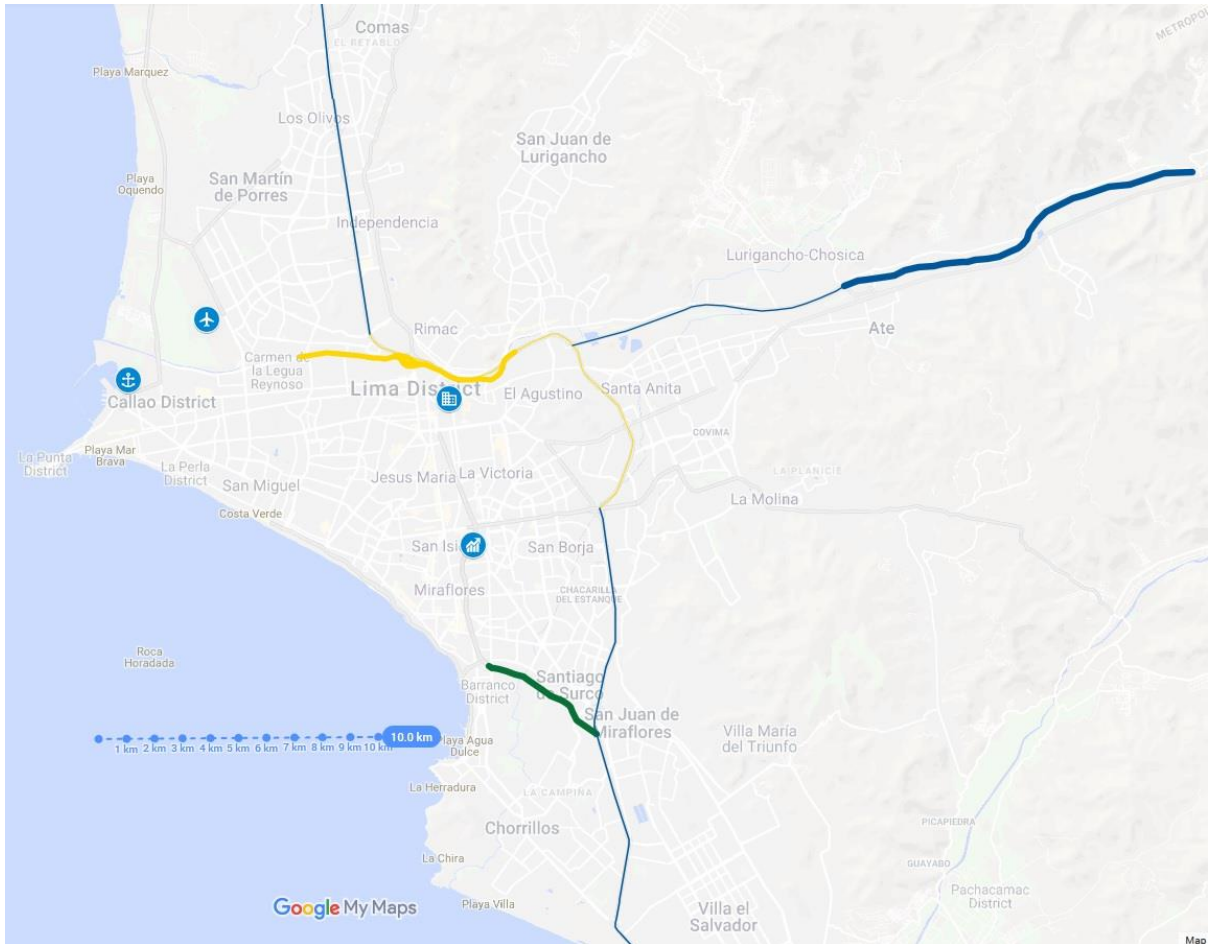


Figure 10. The three highway projects. Existing highways that are parts of the concessions in thin lines. New highways in thick lines. Yellow: Yellow Line (thin line is Vía de Evitamiento). Blue: New Roads of Lima (thin lines are the North Pan-American Highway to the north, the Ramiro Prialé Highway to the east, and the South Pan-American Highway to the south). Green: Southern Expressway. Markers: port, airport, downtown (main employment center, top), San Isidro financial district (secondary employment center, bottom).

3.3. Línea Amarilla: a project that ‘fell from the sky’

The first project was proposed only three months after the national government had passed the law that contained the new framework for public-private partnerships. On March 31st 2009, after over two years of discussing the project with power brokers at the municipality, the Brazilian construction company OAS submitted the first unsolicited

proposal for a large project to the municipality of Lima under the new legal framework.

Called Yellow Line, it took its name from a highway built by the same firm in Rio de Janeiro a decade before.⁹³

The proposal had three main components. The main one was a 9km-long new highway that included a 2km-long tunnel below the Rímac River, in downtown Lima. The highway would connect an existing urban highway, Vía de Evitamiento,⁹⁴ located north and east of downtown, with Callao, the city west of Lima where the airport and the port are located. The concessionaire would be in charge of building, maintaining, and operating the new highway for 30 years, and would introduce tolls on it. The proposal also contained the operation and maintenance, along with some improvements, of a 15km-long segment of the Vía de Evitamiento. The operation included the collection of existing tolls in that road, which would go to the consortium. Furthermore, the concessionaire would build a Bus Rapid Transit line in the median of that highway portion (the operation of the BRT line was not included). Along with investing in those pieces of infrastructure, the company would provide funds to compensate for eminent domain and eviction costs: the western section of the new highway would go through a group of low-income neighborhoods. While a portion of it would use an existing right of way, it would also need space already occupied by homes. The proposal did not assess the number of displacements, but news reports gave estimates of around 2,500 families. Total investment would be USD 571 million.⁹⁵

⁹³ Yellow is also the color of Luis Castañeda's political party. Castañeda was the mayor of Lima from 2003 to 2010 and from 2015 to 2018.

⁹⁴ Vía de Evitamiento means 'bypass road.' It is the section of the Panamerican Highway that bypasses downtown Lima. See Figure 1.

⁹⁵ The contract includes a clause (art. 10.12) that could be interpreted as a non-compete clause. It mandates the municipality to compensate the concessionaire (to reestablish the financial-economic equilibrium) in case the authorities do any action that could possibly affect the concessionaire's revenues, *such as* exit ramps due to the construction of roads that intersect or go through the area of the concession, the approval of differentiated tolls, or its exoneration. I highlighted 'such as' because it indicates that the conditions are given as examples, not as exclusive scenarios. So even when the clause does not make direct reference to the construction of alternative roads that divert demand from the highway, such roads could potentially be considered as an act of the authority that merits compensation.

Mayor Luis Castañeda highlighted the fact that the municipal government was not required to guarantee a minimum level of revenue. The project, he said, was going to be financed solely with private funds. According to Castañeda, ‘The firm is assuming all the risks. If one day thousands of cars go through the tunnel, they will win. But if only one vehicle goes through, they will lose. And the municipality will not have to compensate them as happens in other cases.’⁹⁶ What Castañeda failed to mention was that the concession would include the transfer of an existing toll road that collected over USD 40 million per year, or two thirds of the city’s entire toll revenues, and was growing over 10% year to year.⁹⁷ Even if no cars used the tunnel, the concession would likely still be profitable. As we will see below, this was not a mistake, but a key part of the negotiation that allowed the concessionaire to sell the concession a few years later at a high profit.

The Yellow Line was generally depicted in a positive light in the press. *El Comercio* newspaper informed in November 2009 that *Lima is modernizing: a 2km-long tunnel will go below the Rímac River*. Similarly, *La República* published in September 2009 that *They will build the Yellow Line to relieve congestion due to vehicular load in Vía de Evitamiento*.

There were some critiques about specific aspects of the project, such as the time frame of the concession. But the need for the project and the convenience of the concession model went largely unquestioned. Among the positives, it was highlighted that no public funds would be involved, that the project would relieve congestion, and that it would reduce travel times between Callao and the wealthy south-east of Lima. According to news reports, the project would be completed after five years.⁹⁸ Only after residents of the neighborhoods affected

⁹⁶ <http://www.andina.com.pe/agencia/noticia-firman-convenio-para-iniciar-construccion-nueva-via-expresa-tunel-debajo-del-rio-rimac-ampliacion-263959.aspx> (accessed 10/23/2018)

⁹⁷ Confirming the trend seen in previous years, between November 2011 and November 2012, the number of vehicles that went through the Evitamiento booths (the ones that were given in concession for the Yellow Line project) increased by 12.8%, from 3.7 million to 4.2 million. Toll revenues from all tolls in Lima increased by 14% between 2011 and 2012. Source: EMAPE.

⁹⁸ <http://gestion.pe/noticia/367974/firmaron-contrato-construccion-linea-amarilla> (accessed 10/23/2018)

organized to protest displacements, the news started acknowledging the project had some issues that should be solved.⁹⁹

Thus, in the public sphere, the justification for building the project went along two lines. First, it was argued that such a project would help foster the development and modernization of the city and the country. Improvements in connectivity, especially to the port and airport area, were seen as key for the development of an export-oriented economy. Some traits of the project, such as the tunnel below the river, were seen as inherently modernizing. And second, it was highlighted that the project would not require public funds and that risks would be assumed by the private sector. This statement is partially inexact and partially untrue. As I mentioned above, it would actually require the transfer of existing public toll revenues to the winning firm. That is, it would simply ‘keep costs off the balance sheet’ (cf. Froud 2003) while transferring sources of revenue from the public to the private sector. Furthermore, the local government did retain risks which have resulted in monetary compensations for the concessionaire.¹⁰⁰

In the less public sphere of the city council, the reasons for approving the project gave more importance to the need to attract private finance.¹⁰¹ On June 25th 2009, the council declared the proposal to be of public interest.¹⁰² Some of the arguments presented by councilmembers in favor of the project were openly misleading. Rafael López Aliaga said that the firm would not collect a single penny for seven years. This was blatantly false, as the original proposal estimated a revenue of USD 46.2 million for 2013, the first year of operation. But other arguments were more revealing of the governing party’s rationale for

⁹⁹ <http://larepublica.pe/sociedad/484597-la-linea-amarilla-de-la-discordia> (accessed 10/23/2018)

¹⁰⁰ According to the Office of the Comptroller, the compensation was in fact against what the contract said (Informe de Auditoría 303-2017-CG/MPROY-AC). More on this later in this chapter.

¹⁰¹ Debates in the city council are rarely covered in the press. To know what was debated, one would typically need to download minutes from the municipality’s website. While what happens there is not secret, the content of the debates is rarely picked up by the press. Also, council debates are often irrelevant because the electoral system assignates at least 51% of the council members to the winning party. Nevertheless, issues such as the approval of unsolicited bids need to be formally decided in the council.

¹⁰² Legally, this opens a 90-day window for other firms or consortia to submit bids.

approving the project. Council member Ricardo Palma Michelsen, responding to criticism from opposition councilmembers, said:

We are now presented with an opportunity that allows us to carry out a project that will not cost us anything as a municipality, that *will not cost us anything* as a city, that will allow us to promote development, and we are quibbling... we are giving this project the green light and are *praying to heaven for fifty more of these projects to fall over us* in order to fix the city of Lima. Thus, we should not have even a bit of pessimism, and instead [we should] have hope, [we should] *sow hope ourselves*. And these companies that come from abroad to put money on these types of works, they should be welcomed. *We can quibble and make observations in low voice, but not creating an environment of pessimism ourselves*, when conditions in the county momentarily have a drop of pessimism. It is indispensable that we change our mentality toward a positive mentality. If not, we will be worse than the regions, which have money but do not spend it because *they do not know how to manage it*.¹⁰³

This declaration reveals some issues both about the context and about the local government's attitude. In practice, of course, the role of public officials was not just to pray, however religious the governing party was. Instead, the prayers should be translated as what the government actually did: they looked for investors and convinced them that investing in PPPs in Lima was a good idea. In fact, the Yellow Line project did not just 'fall from the sky.' It was presented formally only after two years of talks between power brokers at the municipal government and the Brazilian firm involved. During those talks, the municipality changed zoning in order to make the project viable.¹⁰⁴ Public officials were looking for investors while giving them the front seat in identifying specific spaces for investment and even planning the projects. They were not praying to heaven. They were praying to private capital.

The quote also reveals that the usefulness of the project was secondary. Any doubts or criticisms would have to be silenced. If not, those criticisms could have ended in the rejection

¹⁰³ Acta de Concejo 026-2009, council debates minutes. Emphasis mine. By 'the regions', Palma refers to subnational governments that are often stereotyped as inefficient spenders. There are 26 regions in Peru, including Lima.

¹⁰⁴ More on the specifics of the zoning change later in this chapter and in chapter 5.

or the modification of the project. Pushing for its approval was the main priority, even at the cost of having a project that could potentially have serious flaws. This fact is implicit in the councilmember's declaration, even if not in the more public statements made by public officials in the news. Accepting it without questioning too much would 'sow hope,' that is, convince these and other investors that investing in Lima was a good idea. This was especially important because the Yellow Line was the first large project carried out under the recently approved scheme in Lima.

In practice, this means that once a project is agreed, after some months or even a few years of informal talks between municipal power brokers and private firms, the municipal machinery starts working to make the project go through.¹⁰⁵ Some discussion is allowed, but not if it goes so far as to question the project itself. This is a central trait of the way PPPs work in Lima. Once power brokers at the municipality, be it the mayor or the municipal manager, agree that the project will go through, the municipal bureaucracy starts working for it to be approved. Rather than a debate, what we get, at most, is the tweaking of the project for it to be acceptable to different municipal agencies.

The process by which the municipality formally evaluated the project is a case in point that reveals the municipal government's rationale. Shortly after the bid was presented, the municipality decided to hire external consultants to assess the technical and legal aspects of the project. A large portion of the payment to these consultants would be made as success fees, that is, only to be paid if the project went through. In other words, the contracting process included a moral hazard by design (cf. E. D. Sclar 2001, 114). The cost would be borne by the firm that won the contract. By transferring the cost to the winning firm, the process became partially exempted from a national law regulating public contracting: this law

¹⁰⁵ That this is how the municipal government processes unsolicited bid was confirmed to me by former officials at the Agency for the Promotion of Private Investment and other municipal agencies.

only regulates contracts that make the government pay private entities for a service, not payments between private entities. An internal memo cited a 2004 report from the Special Commission for the Promotion of Private Investment (Comité Especial de Promoción de la Inversión Privada-CEPRI), the predecessor of GPIIP (Gerencia de Promoción de la Inversión Privada, or Agency for the Promotion of Private Investment), which said that using a success fee made the investment bank bear the risk, as the failure of the project would mean that it would have made an investment without getting a return on investment. It said nothing about the obvious perverse incentives: the reduction of that risk depended on that same investment bank submitting a favorable report.

The terms of reference required the consultant to assess the technical and financial aspects of the proposal. The financial portion consisted in the evaluation of the toll price needed for the project to work, the assignment of risks, the need for financial guarantees, the estimated return to the municipality, and the financial viability of the project. The technical portion required the consultant to assess the viability of the technical and engineering proposal, whether the project could be done in the areas that it was proposed, and whether the costs were consistent with market prices. Social risks were included as part of the financial assessment, but only to the extent that they impacted the financial viability of the project: ‘to identify social and commercial risks inherent to the project, as well as the schemes for assigning them, their impact on its financial viability, and the ways of mitigating them.’¹⁰⁶ The consultant would be required to provide a comparison between the information the municipality had of traffic patterns and the information produced by OAS. This was considered secondary, however, as it was not part of the minimum requirements for the first part of the report—the one that was due in thirty days and was deemed enough by the council

¹⁰⁶ ‘Concurso de méritos por invitación N° 001-2009-MML/GPIIP. Para contratar una entidad encargada de brindar asesoría externa especializada en materia técnica económica y financiera en el proceso de promoción de la inversión privada de una propuesta de iniciativa privada denominada “Vía Expresa Línea Amarilla”’. Anexo 2, Términos de referencia. Found in Libro Blanco vol. 1, 260.

to approve the unsolicited bid. The bidding terms for the consultancy did not ask for any type of transportation-related assessment: no evaluation of the improvements for potential users of the road, or of effects on traffic or other modes or mobility, or of traffic safety were required. In other words, the public goods aspects of the project were not considered. The focus was on the project's financial viability: any other aspects become relevant only as long as they could affect it.

The consultant would have 30 days to provide the preliminary financial and technical assessment, and 240 days more to submit a full report. Three consultants were considered. Two of them offered to provide the service in exchange for a fixed payment of PEN 100,000 (around USD 30,000). A third one, Jaime Shimabukuro, offered the consultancy for a fixed payment of PEN 7,000 (around USD 2,100) and a success fee of USD 25,800. He won the contract. The USD 2,100 fixed payment would be paid by the municipality. The firm that won the PPP contract would pay the success fee. A further USD 4,200 would be added to the success fee if there was more than one bidder for the highway contract.

Parallel to the process of selecting a technical consultant, the municipality was setting the bidding process to pick a legal consultant. Two law firms competed for the contract. One asked for a fixed payment of PEN 90,000 (USD 27,300). The other, Benites, Forno & Ugaz, required a fixed payment of PEN 10,650 (USD 3,200) and a success fee of PEN 180,540 (USD 54,700).¹⁰⁷ Benites, Forno & Ugaz won the contract. As in the case of the technical consultant, the fixed payment would be made by the municipality, and the success fee by the concessionaire. The municipality picked the option that required the less public funds, despite being by far the most expensive one.

A pattern is clear. In both cases, GPIIP selected consultants that offered their services in exchange for a success fee. From the perspective of the municipality, the rationale for

¹⁰⁷ If more than one firm bid for the highway, the success fee would be PEN 200,600 (USD 60,000).

hiring consultants on success fees was twofold. First, it was a way to save money in the present. The municipality would be in charge of paying for the smaller fixed fees, while the larger burden of success fees could be transferred to the winning consortium—again, a case of keeping costs off the balance sheet even if they were higher, as the fee would be ultimately included in the full cost of the project. Second, the primary objective of the municipality was to get the project approved, so getting a biased assessment was not seen as too problematic. In several interviews with people that worked in the municipality of Lima, both at GPIIP and at other agencies, I have found a consensus: once a bid is presented to GPIIP, it is deemed to be approved. This only applies, of course, to bids that were informally discussed between the firm and power brokers at the municipality before their formal submission. The use of success fees as a form of payment to consultants that evaluate the projects has obvious consequences. It is highly likely that assessments will underestimate or even overlook aspects of the proposal that might hurt the public interest. Otherwise, the risk of the project not going through because of opposition from within the municipal government or council would increase, along with the risk of consultants losing over 90% of their potential payments.

The contract with the technical consultant was signed on May 27th. Less than a month later, on June 25th, the council declared the project to be of interest. It is remarkable that public officials needed such a short spell of time to analyze and decide on the results. In fact, the celerity was sarcastically mentioned by an opposition councilmember as an outstanding demonstration of efficiency by the local government. But it is also unsurprising. As a councilmember from the governing party argued in response, the project was not improvised, but rather a product of more than two years of talks between the firm and municipal officials. Thus, paraphrasing Bent Flyvbjerg (1998), the technical report was simply the production of a body of knowledge that aligned with and legitimated what power had already decided.

Once the bid was submitted, the municipal government simply started working to get the project approved. Any new negotiation would be only over details. When no other bids were received during the 90-day window, the council adjudicated the project directly to the original proponent. After a brief period of negotiations to finalize details, the contract between the municipality and OAS' special purpose vehicle (SPV) Línea Amarilla SAC (Lamsac) was signed in November 2009.

The role of the government was not limited to looking for investors and assuring them their project would go through. The municipal government actively created the physical space to let OAS propose the project. In April 2007, while talks between OAS and the municipality were already underway, the city council changed the zoning parameters of the area the highway would go through. In 2004, some parts of MIRR, a group of neighborhoods east of downtown, had already been zoned as Special Regulatory Zone – Urban Renewal and Physical Safety (Zona de Reglamentación Especial por Renovación Urbana y Seguridad Física, ZRE). But not Dos de Mayo, a low-income neighborhood that was zoned as residential. Two- and three-story homes lined paved streets in a neighborhood deemed not risky in reports done by diverse organizations, including the Metropolitan Planning Institute (Instituto Metropolitano de Planificación, IMP).¹⁰⁸ This contrasted with other neighborhoods that were more precarious. Despite existing knowledge about the neighborhood, however, in 2007, the year talks between OAS and the municipal government began, it was earmarked, along with the rest of the area zoned as ZRE, as a place to be intervened because it

¹⁰⁸ IMP: http://www.imp.gob.pe/images/Social/MIRR_POBL_VULNERABLE_PELIGROS.pdf (2009, based on a report from 2008. COOPI, 2008 – Estudio de identificación de zonas de peligro y de vulnerabilidad en el Cercado de Lima y El Agustino, Provincia de Lima) and <https://ciudadesfocalesmirrlima.files.wordpress.com/2012/08/gestion-de-riesgo-de-la-mirrweb.pdf> (2012) (both accessed 6/3/2019).

represented ‘a risk for the physical integrity of its inhabitants’.¹⁰⁹ This paved the way for OAS to formally propose a highway that would require the demolition of homes.¹¹⁰

When residents of the Left Bank of the Rimac River (Margen Izquierda del Río Rímac, MIRR) learned about the project that would displace them, they organized to contest it. Their complaints, however, were not against the project itself, but against the previous rezoning that had allowed it. Neighborhood associations claimed that the rezoning as an environmentally risky area that must be evicted did not conform to technical information. They engaged in diverse strategies of mobilization. In May 2010, residents marched to Congress demanding the repeal of ordinance 1020 claiming that it violated their right to housing and to private property. At the same time, congressmen supported them in presenting a constitutional claim against the same ordinance. The constitution, however, does not guarantee the right to housing. Instead, it guarantees the right to property and ‘to choose place of residence.’¹¹¹ Thus, in the claim it was argued that the ordinance went against those two rights. In June 2011, the Constitutional Court rejected the claim. One of the judges argued that the right to property could not be maintained when the life of the owners is in risk, which was a way of legitimizing the municipality’s claims about risk. The Court, however, established that an adequate relocation plan must be put in place.¹¹²

3.4. ‘From that which it aspired to towards that which was possible’

In October 2010, Susana Villarán won the mayoral election representing a coalition of center and left parties. Her party, Fuerza Social, was on the moderate side of the coalition. Her initial choices to lead the main municipal agencies further expressed a decision to run the

¹⁰⁹ Ordinance 1020-MML, (5/29/2007).

¹¹⁰ This issue was one of the main arguments raised by those who opposed the project and the evictions. In chapter 5 I elaborate on this issue.

¹¹¹ The current Constitution was enacted in 1993 as part of the neoliberal reforms carried out by Alberto Fujimori’s authoritarian government. I elaborate on this issue in chapter 2.

¹¹² I elaborate on this issue in chapter 5.

municipality as a moderate rather than left-wing force. She appointed Miguel Prialé, who is by his own confession to the right of most members of the center-left coalition that won the election, as her municipal manager, which is the most important position in the municipality. Prialé is an economist who specializes in project finance, public investment and public administration and has a rather pragmatic and technocratic worldview.

As a candidate, Villarán visited the neighborhoods that were threatened by the Yellow Line. She offered to take care of the issue, and to cancel the project if that was what it took to limit damages. Once in power (2011-2014), she approached Lamsac to renegotiate the contract. Miguel Prialé was selected as the municipality's lead negotiator. For the municipal government, the main concern was to reduce the negative consequences the project would have on the people of the neighborhoods of the Left Bank of the Rímac River. After several rounds of negotiations that ended in early June 2011, an agreement was reached.

Under the new terms, the highway was rerouted to reduce the number of displacements. Compensation packages were also improved. There were some changes that went beyond the neighborhood as well. The BRT line was eliminated and replaced with an additional highway lane. Furthermore, funds were dedicated to start the construction of a linear park along the right bank of the Rímac River. The new contract also included a road connection from Evitamiento highway to San Juan de Lurigancho, a mid- and low-income area in the northeastern part of Lima. To pay for the improved compensation packages and infrastructure additions, the level of investment was increased from USD 571 to USD 700 million, and the concession period was extended from 30 to 40 years. Moreover, 7% of the toll revenues would now return to the municipality.

When she announced the changes, Mayor Susana Villarán declared that the municipal government had been able to strike a balance between the public interest, the interests of investors, and those of affected inhabitants. Villarán and other high-level public officials had

previously questioned the project. They were particularly critical with the previous Mayor, Luis Castañeda, over some of the details, including the fact that it relinquished two thirds of the municipality's toll revenues for three decades. For instance, after winning the election in October 2010, future municipal manager Miguel Priale declared that he was not against the Yellow Line, but that further explanations were needed regarding its design and scale. In that context, Villarán's announcement can be read as saying that a different way of doing public-private partnerships was possible, rather than an indictment of PPPs themselves.

When announcing her candidacy in late 2009, Susana Villarán said in a TV interview that she had three priorities: security, cleanliness and order. By security she meant to fight against crime. By cleanliness she was referring to corruption charges against the incumbent mayor. Transportation policy was included in the 'order' proposal: the focus would be not on infrastructure investments, but on regulatory changes. According to Villarán and her team's diagnosis, the source of Lima's transportation woes was not a lack of infrastructure investments, but a chaotic, atomized, and loosely regulated transit system.¹¹³ Gustavo Guerra García, a transportation expert in Villarán's team, explained in a TV interview in August 2010 that Lima was a 'flattened city' that did not require investments in high-capacity corridors, which would only serve a tiny fraction of the demand. Instead, the city needed changes in regulation in order to allow the municipality to take control over its transit system and promote private investment for operating new routes.¹¹⁴ According to this view, investing in mass transit corridors would not only take longer and be more expensive, but would be rather ineffective. Along the same line of argument, in March 2010 Susana Villarán had highlighted in another interview that the recently opened bus rapid transit line just served about 4% of the demand. A comprehensive overhaul of all the transit system through

¹¹³ The chaotic nature of the loosely regulated transit system has been widely reported. For a sociological study see (Bielich 2009). I elaborate on this issue in chapter 4.

¹¹⁴ Interview in Canal N, August 26th, 2010. I expand on this way of conceptualizing Lima as a flat, non-dense city, and on its consequences for planning decisions in chapter 4.

regulatory changes and small investments in several corridors would be more effective than large investments in a few expensive corridors. This was an argument for buses running on mixed traffic rather than investing in more costly BRT lines. Once in power, she called this enterprise the Transportation Reform, and made it one of the central programs of her government.¹¹⁵ Large infrastructure projects using PPPs, thus, were not among her priorities. In this context, the inclusion of a series of large infrastructure projects for investors to participate in was a partial departure from the administration's initial standing.

This departure was evident when, during her second year in office, the Villarán administration approved two other PPP projects to build more highways: New Roads of Lima, worth USD 590 million, and the Southern Expressway, worth USD 230 million. What happened? Both the political context and budgetary constraints are key to understand this shift.

Villarán's victory in the October election came to many as a surprise. Even people in her campaign team never thought they were going to win until a few weeks before Election Day. Two right-wing candidates, Lourdes Flores and Alex Kouri, were front runners for most of the campaign according to polls. With six weeks to go, however, the electoral court excluded Alex Kouri because he had not been living in Lima for long enough, which is a requirement to be a candidate in municipal elections.¹¹⁶ During the following weeks, Villarán surged in the polls, and ended up winning with less than one percent margin over Flores. With the surprise came the urgency to set up an actual governing team and to translate plans into action.

¹¹⁵ Under the new system, the municipality would choose the routes and then outsource them. In the traditional system, still dominant in Lima, private companies identify routes and propose them to the municipality. Then the municipality decides if it approves them.

¹¹⁶ Alex Kouri had been mayor of Callao (1996-2006) and, at the time, was regional president of Callao. In the last poll done by Ipsos before Kouri was excluded, Villarán got 9% of the vote, while Flores got 32% and Kouri got 24%. <http://archivo.elcomercio.pe/politica/gobierno/efecto-catano-lourdes-flores-bajo-puntos-encuestas-villaran-lay-subieron-noticia-623672> (link is now broken). The poll is available at <https://www.ipsos.com/sites/default/files/publication/2010-08/Opinion%20Data%20Agosto%202010.pdf> (accessed 10/23/2018).

According to Álvaro Espinoza, one of Villarán's government high-level public officials and one of her closest advisors, PPPs 'were not in the radar' before taking power. But then they figured out that the municipal budget was insufficient for major public works and started looking at PPPs as a way of funding them. This might have happened as early as January 2011, her first month in power. One of the first decisions taken by Villarán was to appoint Miguel Prialé as municipal manager. Prialé did not closely align with any of the three priorities mentioned by Villarán during her campaign: he was no expert in crime, corruption, or transportation. Instead, his expertise is on investment projects with public and private finance. In a TV interview on October 2010, Miguel Prialé mentioned road investments as one of his priorities. In press interviews, he combined a critique of how PPPs had been done by mayor Castañeda with praise for the way municipal finances had been left in 'good health.' Good management of municipal finances had allowed the municipality to incur debt with international capital markets, a move he sought to continue. When Susana Villarán appointed him as municipal manager at the beginning of her government, she showed that she wanted to increase the profile of the technocratic side of the coalition. This would allow her to attract private investment after a vicious electoral campaign in which she was repeatedly depicted as a communist who was against any type of private participation in the economy, which was actually far from her rather moderate views.¹¹⁷ By doing so, she also showed that, whatever socially progressive goals her mayorship would pursue, she was convinced that those goals could not be achieved without the use of private finance to overcome the municipality's budgetary shortages.¹¹⁸ The progressive members of the coalition were in charge of certain areas, such as the improvement of low-income neighborhoods through

¹¹⁷ In December, shortly before Villarán took power, there was a conflict within the coalition that took her to power. She publicly declared against maintaining the Communist Party-PR (Patria Roja) as part of the coalition for the April 2011 national elections. Several members of her campaign team and of council were militants of that party.

¹¹⁸ The total capital expenditure in 2010 was PEN 1.13 million, around USD 400,000. The operating expenditures were PEN 2.57, around USD 900,000.

specific projects led by the mayor.¹¹⁹ But appointing Miguel Prialé as municipal manager showed two things. First, that PPPs would be an important part of the government, despite previous criticisms. And second, that there was a chance that the technocratic side would prevail over the politicized, progressive side of the coalition.

During his year as municipal manager, Prialé fulfilled two main roles. The first one was to lead the renegotiation with OAS over the Yellow Line project. The other was to compile a project portfolio for future proposals to be made by private firms. At the end of the year, along with the Agency for the Promotion of Private Investment (GPIP), he produced a project shortlist titled ‘The Lima of the Future.’ It contained twelve projects, including an urban highway along Angamos Avenue (also called Primavera, mentioned in chapter 1) and a BRT line, as well as some urban renewal schemes and small projects such as ad licensing in bus stops. Further shortlists included other two highways: New Roads of Lima and the Southern Expressway. This is a fragment of the interview I conducted with Prialé in which I asked him how projects were selected:

Miguel Prialé: A lot of the project ideas exist. Our job is to prioritize.

Me: ¿Where do they exist?

MP: They have been proposed by the private sector, or a previous administration had thought about it and had been giving shape to it. It’s not that we created that. I would say that we had a mixture between what we already had, such is the case of New Routes of Lima,¹²⁰ which was an initiative that had already been proposed—it had not been admitted, but it had been proposed. The completion of the Expressway¹²¹ is a very old project that was never completed, but the project existed. In the case of Angamos it was an old initiative that we ended up landing.¹²² But sure, when you say OK how all this was prioritized (...) projects would have to be consistent with the transportation reform we launched (...) projects would help bridge infrastructure gaps within the framework of the transportation reform.¹²³

¹¹⁹ Interview #22, with Daniel Ramírez Corzo (7/12/2017).

¹²⁰ He is naming the concession by mixing its name and that of its Special Purpose Vehicle (Rutas de Lima, or Routes of Lima). The actual name of the concession is New Roads of Lima (Vías Nuevas de Lima).

¹²¹ He is referring to the Southern Expressway, which is the extension of an urban highway popularly known simply as ‘The Expressway’ (La Vía Expresa).

¹²² He is referring to a fourth concession, the La Molina-Angamos Connector, which was adjudicated in 2014 but no contract has been signed.

¹²³ Interview #18, with former municipal manager Miguel Prialé (5/9/2017).

The projects, then, are not part of a plan but derive from old and new ideas about particular projects and solutions. Plans, at most, are treated as a repository of specific projects to be selected.

The later months of 2011 were a political disaster for Susana Villarán's administration. By October 2011, she had a net approval rating of -57%.¹²⁴ Possible explanations are varied. She had engaged in a dispute against former mayor Luis Castañeda, who was very popular despite serious accusations of corruption. The new council majority formed a commission to investigate these accusations. In response, Castañeda and power brokers that were close to him set up a campaign to legally remove Villarán from office through a recall election.

The campaign had two strategies. The first one was to collect the formally required signatures. The second one was to advance the image of Villarán as a lazy person that did not work enough to deliver public works. The nickname Lady Vaga (a spoof of Lady Gaga, 'vaga' means lazy) emerged.

Former mayor Luis Castañeda's reputation was that of an efficient provider of public works. Villarán, on the other hand, was trying to build a different idea of what a mayor's role should be. For her, the problems the city needed to solve were not solely about infrastructure. In an interview she gave to the BBC as mayor-elect, she said that the city had 'a small budget compared to other cities in the region. However, if used wisely it is possible to do works that not necessarily translate into cement, because what Lima needs is more of an orientation, an identity, and a purpose.'¹²⁵ This discourse resembles former Bogota Mayor Antanas Mockus, who sought to integrate civic education into his role (Berney 2017), and has been cited as

¹²⁴ Ipsos. Approval rating: 20%. Disapproval rating: 77%. https://www.ipsos.com/sites/default/files/publication/2011-10/OD_Octubre_2011.pdf (accessed 10/15/2018).

¹²⁵ http://www.bbc.com/mundo/noticias/2010/10/101028_peru_lima_villaran_entrevista_wbm (accessed 20/23/2018).

being a reference for her (Somocurcio 2011). Villarán also highlighted the need to give some order to public works by setting priorities and by planning. This discourse might have been effective if in another context or if carried out in a different way. In 2011, however, it played right into the hands of those trying to portray Villarán's government as ineffective. Together with actual inefficiencies and delays due to the change in government and the urgency of finding cadres for a public office they did not expect to win, the opposition campaign proved very effective. By October 2011, most people who disapproved her administration said that she should be 'working more efficiently'.¹²⁶

The press did their part too. As is usual with left-of-center politicians in Latin America, the mainstream media, owned by large business corporations (Ramonet 1998; Sosa Plata 2016), spun any mistake made by the municipal government into one of the main news stories of the week. At times, accusations were as ridiculous as when the paper of record, *El Comercio*, informed that painting street railings green (the color of Villarán's party) went against a royal decree issued in the year 1537 by the Spanish crown, and ratified by the city council in 1993, which instituted yellow and blue as the city's official colors.¹²⁷ In case any explanation is necessary, neither the royal decree nor the council agreement mandated that all the street furniture of Lima must be painted yellow and blue.

In this context, the apparent failure of a renewal project in a beach was the perfect set up for a political scandal. Between the 1930s and the 1970s, La Herradura beach was one of the most popular beaches among middle- and upper-class Limeños. For a diversity of reasons, the beach has become a lot less popular. Among those reasons is the construction of a road in the cliff bordering the beach in the 1980s, which changed the tides and turned what

¹²⁶ In the poll mentioned above, 71% of those who disapproved her said she should 'work more efficiently' ('trabajar más eficientemente').

¹²⁷ <http://archivo.elcomercio.pe/amp/sociedad/lima/concejo-limeno-contravino-ley-pinto-verde-rejas-av-canada-noticia-757273> (accessed 10/23/2018)

was a sandy beach into one that was made of pebbles.¹²⁸ Villarán, who comes from an upper-class background and was nostalgic about her own visits to that beach when she was young, decided to carry out a project that had been already been considered but not implemented by the previous administration. The idea was to make the beach sandy again and to renew its promenade. The project did not go as planned. In December 2011, while one of Villarán's aides, Augusto Ortiz de Zevallos, was being interviewed on live television at the beach, the ocean washed most of the sand that had been brought for the occasion, revealing the pebbles that remained beneath it. Again, the image was one of inefficiency.

Brazilian corporation Odebrecht had donated the sand: five thousand cubic meters worth USD 125,000. We cannot know whether engineers at Odebrecht were aware that putting sand on a beach without transforming the structures that shape the tides that had already turned that same beach into a pebble one would be ineffective. But negotiating against a weak government that was under a lot of pressure did suit them well. A year and a half before the scandal, Odebrecht had formally submitted an 'unsolicited bid' to build an extension to the Ramiro Prialé highway, which goes to the east of Lima. Additionally, Odebrecht would maintain, improve and operate Lima's remaining toll road network: the existing stretch of the Prialé highway along with both the northern and southern portions of the Pan-American Highway. In exchange, Odebrecht would collect the tolls for all three highway sections during the 30-year period of the concession. The project was known as New Roads of Lima.

In October 2011, Miguel Prialé had travelled to Spain and France in order to promote infrastructure projects to potential investors, including New Roads of Lima. In an interview,

¹²⁸ Another reason for its loss of popularity might have been that, until the 1970s, La Herradura was one of Lima's few beaches. But when the Vía Expresa highway was built below grade in the 1960s, the land that was excavated was moved to the coastline, turning the rocky oceanline into a 17km-long series of beaches (see chapter 2). La Herradura is not located along this oceanline, but a few kilometers to the south, and separated by a cliff, which makes it less accessible to most Limeños than the new beaches.

he told me that, while the formal process indicates that after the bid is declared of interest then alternative bids are accepted, nothing can prevent the municipal government from searching for investors before that happens. The idea behind this is to foster competition, as the three-month window that opens after the declaration of interest is insufficient. His position was that the ‘declaration of interest’ that opens the three-month window should be postponed until they knew there were enough potential proponents to make the process competitive (for him, this was around four potential participants). This way, the municipality can stimulate competition by delaying the formal declaration of interest until potential bidders have shown interest. While the formal, step-by-step process, then, is designed to prevent competition, it allows discretion on the municipality’s side to foster competition by going outside the formal channels, without revealing detailed information on the project. But just as the municipal government can promote competition outside formal channels, so can bidders exert pressure to prevent that. Prialé failed to get investors for the New Roads of Lima and the Southern Expressway projects. He attributes the failure to the municipality not showing enough ‘muscle’ to convince them. It was later revealed that, in Peru, large construction firms had been operating as a cartel since at least the early 2000s.¹²⁹ Going abroad to sell projects could be a way of breaking that cartel. However, for Gustavo Guerra-García, a close advisor to Villarán and also a public official during her administration, it is not possible to do a good job attracting other investors because studies are secret and it is illegal to share them. He also commented that, when Prialé tried to get competitors, Odebrecht ‘made his life impossible’ and tried to accuse him of sharing private information.¹³⁰ In January 2012 Prialé was removed from the municipal manager office.¹³¹

¹²⁹ <http://larepublica.pe/politica/1173678-los-negocios-secretos-de-el-club-de-la-construccion> (accessed 10/23/2018). <https://larepublica.pe/politica/1457054-club-construccion-existia-2001> (accessed 05/14/2019).

¹³⁰ Interview #19, with Gustavo Guerra García (5/22/2017).

¹³¹ Prialé was replaced with José Miguel Castro, who until then had been the finance manager. Along with him, the manager for the promotion of private investment, Diego Ferré, was replaced with Domingo Arzubialde. Both José Miguel Castro and Domingo Arzubialde are under investigation for corruption charges.

Until January 2012, there was tension between progressive and technocratic views that produced a particular mode of governing. While the municipal government was open to private investment, there was a push for negotiating terms that were favorable to the city. Miguel Priaré had sought to give some order to a variety of ideas and proposals by including them in a shortlist. Along with that, the municipal government had preferred lengthy negotiations that could deliver some benefits over fast tracking proposals to get projects in line quicker. The changes in management positions signaled a turn in political orientation towards speeding private investment projects.

In April 2012, the impeachment campaigners announced they had already collected the signatures needed to carry out the recall election. In May 2012, without other potential bidders in line, the council declared Odebrecht's project of interest. During the council debate, the new municipal manager José Miguel Castro said that one of the bases of their approach to private investment was the transparency that the process had shown. He added that they

Also expected this aura of transparency the Municipality of Lima is living to reflect in competition, which is the second essential basis. We do believe that competition will come, we believe that the path through which we are attracting competition is the most adequate.¹³²

Three months later, the project was adjudicated to the original proponent after no other bids were received.

In July, the council declared another project of interest. This time, it was a 4.5km-long extension of an urban freeway that goes south from downtown. The proponent was Graña y Montero, a Peruvian corporation. The project was also awarded with no competition.

In the council session that debated the approval of the Southern Expressway, the administration invited former mayor of Lima Luis Bedoya Reyes (1964-1969). Bedoya Reyes

¹³² Council minutes: Acta 22-2012, (5/3/2012).

is the founder of the Popular Christian Party (Partido Popular Cristiano, PPC), a conservative party that has been traditionally strong in Lima. The coalition his party was part of (PPC-*Unidad Nacional*) lost the 2010 municipal election to Villarán, and consequently was the strongest opposition party in the city council. Bedoya Reyes was the mayor of Lima when the *Paseo de la República Expressway*, of which the *Southern Expressway* is an extension, was built.¹³³ Both Villarán and Deputy Mayor Eduardo Zegarra highlighted his contribution to shaping Lima and bemoaned that the continuation of his emblematic project had abandoned for four decades. Zegarra also mentioned that the project was part of PPC's proposals for the city. The approval of the project, then, was done offering explicit gestures toward some members of the right-wing opposition.

During the referendum campaign, PPC-UN endorsed the no recall position. In the recall election, which was held in March 2013, Mayor Villarán was not recalled with a 51.2-48.8 vote. But 20 of the 21 councilmembers of the government coalition did lose the vote, also with a slight margin. In the November 2013 council election to replace a total of 22 recalled councilmembers, Villarán's coalition only got 2 councilors elected. This presented an exceptional scenario: the municipal government had a council minority, which weakened it further.

According to Daniel Ramírez Corzo, an urban anthropologist and left-wing mid-level public servant during Villarán's administration, the techno-managerial side became increasingly important over time. He attributes the turn to this side's capacity to deliver results. During her first year in power, Villarán championed projects to reduce inequalities by focusing on specific interventions in low-income neighborhoods. Ramírez worked in these projects. One issue, according to him, was that they were based on the assumption that the municipality had more power to intervene in these areas than it actually had. Lima is

¹³³ See chapter 2.

subdivided in 43 districts, each with its own mayor. It should also be said that, while these projects have the capacity to radically transform the livelihoods of groups of people, they are a harder sell for the broader public. This contrasts with major public works like transportation corridors or highways, which have a metropolitan impact and are physically experienced and seen by more people (cf. Kaika and Swyngedouw 2000).

For Ramírez, the municipal government moved ‘from searching for what it aspired to towards searching for what was possible.’ In this context, the possible were public-private partnerships. In the absence of a qualified bureaucracy capable of delivering attractive projects in short time, PPPs became a way of bringing outside know-how in producing public works. According to Ramírez, this turn from progressive to techno-managerial government came along with the increasing importance of the municipal manager’s office. The mayor still led projects specifically oriented towards social development, such as infrastructure investments done with public funds in low-income neighborhoods. But most of the municipal machinery became geared towards two objectives: large infrastructure projects done with private finance, and the transportation reform, which required little public investment along with the participation of private consortia to deliver transportation services.

According to some of those on the progressive side of the municipal government, including Villarán, doing large projects with private finance was a way of freeing funds for social interest projects.¹³⁴ What this rationalization reveals, however, is that social interest projects were actually second in the priorities list. If doing highways with private finance ‘frees up’ funds, it means that in the absence of private finance, they would have been done anyway but with public funds, relegating other investments. Furthermore, the highway projects were possible because either existing revenue streams or financial guarantees were

¹³⁴ Some of the former officials I interviewed framed the rationale in this way, especially when referring to how mayor Villarán understood the benefits of doing these PPPs. See also [Dosh and Coyoli \(2019, 271\)](#)

given to the consortia building them. Thus, rather than freeing up funds, PPPs were pulling them out. It could be argued that current funds could be directed towards social interest projects. And indeed, Mayor Villarán led some efforts to improve low-income neighborhoods in a program called Barrio Mío (Dosh and Coyoli 2019, 217). But in the long term, the municipality was set to lose vast amounts of resources.

When the three projects in question were conceived and negotiated, there were two plans in force in Lima. The 1992 Metropolitan Development Plan for Lima and Callao (1990-2010) was a comprehensive plan meant to guide development for the following two decades (Municipalidad de Lima Metropolitana 1992). In the absence of a new metropolitan plan, its validity was extended in 2013 until a new plan was approved.¹³⁵ The more specific Metropolitan Road System, based on the metropolitan plan, was initially published in 1997. It includes a map that categorizes existing roads according to a hierarchy, while proposing the conversion of some roads into limited-access highways (see **Figure 11**). As mentioned in chapter 2, it follows the ever-present logic in Lima of planning way more road capacity that can actually be executed in the short- to mid-term. It also reserves rights of way for future roads. It has been constantly updated and can be read as a more immediate road plan based on the comprehensive one. Those plans only proposed two of the three projects in question. The Road System proposed a limited-access highway similar to the Southern Expressway. It also proposed to complete the Ramiro Priale highway, as the New Roads of Lima project is meant to do. This project will only convert parts of the northern section of the Pan-American Highway into a limited-access road, although the Road System called for that whole stretch to be converted. The New Roads of Lima project will keep some intersections on the northern section of the highway at grade level.

¹³⁵ Ordinance 1702-MML, (5/14/2013).

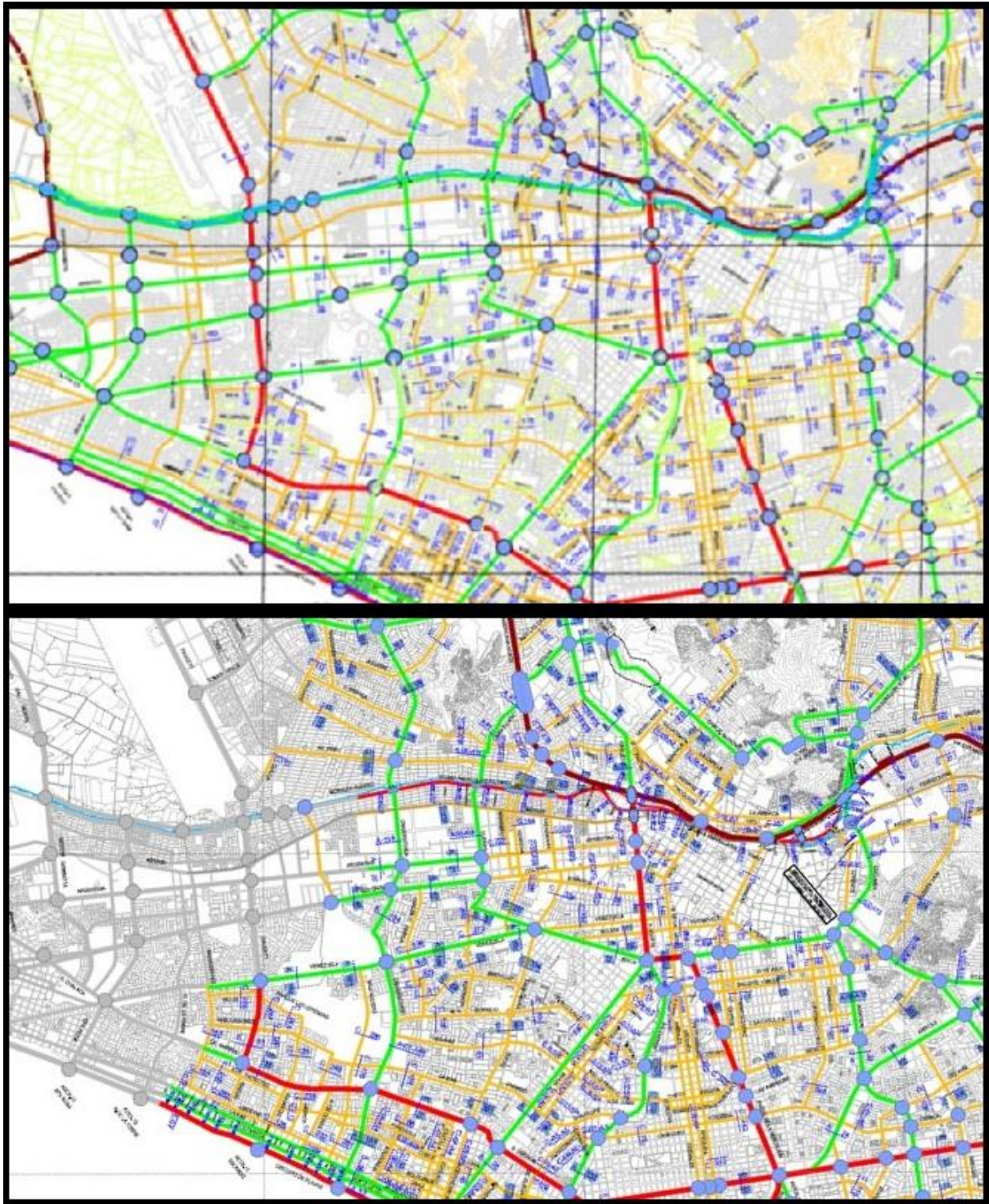


Figure 11. Metropolitan Road System in 2011 and 2016. Top: Metropolitan Road System in 2011. Bottom: Metropolitan Road System in 2016. In 2011, the right of way of what would become the Yellow Line was green, indicating that the plan was for that road to remain as an arterial road, not a limited-access highway. By 2016, the right of way was changed to red, indicating a metropolitan limited-access highway, to reflect the construction of the Yellow

Line. Of the five bridges that go over the Yellow Line and the river, only the two on the westernmost side have been built. In the bottom map, the province of Callao is in gray.

Neither of them, however, proposed to build a high-capacity road or a limited-access highway on the left bank of the Rímac River. Only in 2013 an ordinance amended the Road System to include the Yellow Line as a limited-access road.¹³⁶ To find something resembling the Yellow Line, we must go to the 1949 and 1967 plans. The 1949 Pilot Plan proposed an east-west high-capacity road south of the Rímac River that connected Caquetá (a location just north of downtown Lima) with Callao. Because Lima was a much smaller city back then (population around 1 million, see chapter 2), this was effectively doubled as a section of a ring road and a connection between Lima and Callao, which by then were two separate urban areas. By 1967, both the northern and southern banks of the river near downtown Lima had been urbanized but there was still some rural land between Lima and Callao. That year's plan still included the road. But the proposal cannot be found in the 1990 and 1997 plans, when Lima and Callao were already part of a continuous urban area. Instead, the 1990 Metropolitan Plan proposed to build a transit line over that corridor. When the Yellow Line was formally proposed in 2008, thus, it was not part of any current plan for Lima. In fact, its construction would make it more difficult to build roads that were included in the 1997 plan, namely three bridges across the river (see **Figure 11**).¹³⁷ This fact did not prevent GPIIP from citing all four plans as a justification for approving the project.¹³⁸ In the end, plans work as a repository of old and new ideas for private investors and construction companies to choose from. At times,

¹³⁶ Ordinance 1701-MML, (5/8/2013)..

¹³⁷ In my interview with Carlos Chacón (interview #23 from 7/14/2017), an architect that was responsible for the mobility section of the 2014 PLAM, he cited the construction of those bridges as an urgent way of improving connectivity across the river, and lamented that the Yellow Line project did not include them.

¹³⁸ Informe N° 005-2009-JOL, from June 12th 2009, cited in Council Agreement 272, June 26th 2009, in which the unsolicited bid was declared to be of interest. JOL refers to José Oviedo Lira, GPIIP's technical coordinator at the time.

even the partial fulfillment of a specific planned project can be enough for the municipality to accept the proposal, as in the case of the northern portion of the Pan-American Highway.

Juan Tapia, a local transportation expert that contributed to Villarán's government plan, views the highway projects in a generally positive light. While he recognizes that the Yellow Line was not planned by the city, he believes that it will relieve congestion in the Evitamiento highway, something that was cited as one of the official justifications for building it. He also mentioned that both New Roads of Lima and the Southern Expressway were planned by the city a long time ago, and their net effects will be positive. However, he also acknowledges that all of these projects are done to facilitate automobile travel rather than other modes. The reason for this, he argues, is that the municipal government does not have the financial resources to invest in other types of infrastructure.

Juan Tapia: in some way, when private investment replaces local government, a perverse indirect tax is created, because private investment needs returns. So the citizen has to pay for the infrastructure, which is not free. So while in Colombia the state may say I provide 50% of the investment in the infrastructure citizens will use, the Peruvian [national] state tells the Lima government 'you know what? Your citizens need to pay for what they use.' So, in a certain way, they retain funds but at the expense of citizens

Me: does that make it more difficult to invest in works that are not automobile oriented?

JT: exactly. That makes it way harder because the [national] state at first does not provide financing and then, in a way, pushes public decision-making to only invest in PPPs where profitability is enough for citizens to pay for its own use, right? Because if not, the state will not intervene. Then, as you say politics in general are pushing, just like you have approached this, for the use of the private automobile.¹³⁹

Miguel Prialé confirms that the private sector's capacity to raise funds and to spend those funds was key for implementing PPPs rather than doing traditional public procurement.

In his view,

MP: With traditional public procurement you would never have been able to complete the Ramiro Prialé [highway] and you would never have been able to widen the Panamericana Norte to six lanes. I can assure you that.

MS: Why?

¹³⁹ Interview #21, with Juan Tapia Grillo (6/23/2017).

MP: Because there is not enough money. I mean, for New Roads of Lima you need USD 600 million today.

MS: Is it because of to the private sector's capacity to incur debts that are higher and long term?

MP: Of course. I mean, you can say, if you were in Amsterdam and we had a trustful mayor such as the mayor of Amsterdam, then it would be a bit more debatable, because sure, you could say I have the political and economic stability needed to tell the financial system hey, lend me 600 dollars today and I will pay that with tolls, and I don't need the private actor anymore, I'll do it myself. Because I have the trust and credibility for the financial system to believe me and to give me a reasonable interest rate, so I can incur debt and do the project. That is one side. The other is that you have management capacity, that your municipality of Lima has the capacity to spend USD 600 million today. OK but that can be Amsterdam, Lima does not have that.¹⁴⁰

As a result, the decision-making process on the side of the municipality resembles the 'garbage can model' (cf. Cohen, March, and Olsen 1972). Rather than having well defined problems and planning specific solutions for each of them, the availability of private finance becomes 'a collection of choices looking for problems (...) solutions looking for issues to which they might be the answer' (Cohen, March, and Olsen 1972, 2). The solutions the municipality has in its disposal are unsolicited bids, including those that have not been submitted yet but municipal officials think might be attractive for investors. Power brokers at the municipality, who can be either the mayor itself or the municipal manager, often take the lead in initial negotiations with investors and bidders.¹⁴¹ GPIIP then negotiates details. It is in those details that GPIIP must find the problems for the solution that is already available. When GPIIP receives an unsolicited bid, its officials then think about what problem it might help solve, rather than the other way around. And given that its mandate is to promote private investment, it is unsurprising that, if needed to support projects, they distort evidence in the process, as in the case of the Yellow Line. The concession scheme itself, which allows private actors to submit unsolicited bids, is meant to work that way. It is supposed to allow

¹⁴⁰ Interview #20, with Miguel Prialé (6/14/2017).

¹⁴¹ According to former officials interviewed, during the Castañeda administration it was Castañeda himself who took the lead. During Villarán, it was her municipal manager.

private actors to identify social problems that governments supposedly have not realized existed. In practice, as we have seen, this often means taking existing ideas from old and new plans, and presenting them as original unsolicited bids. But that is not a requirement. Proposing roads where there was none planned can also work. The next step is for the government to rationalize the relationship between problem and solution. But solutions are bounded by what can be done with private finance.

The Villarán administration sought to give some order to this. At first, as I mentioned above, it produced project shortlists. One was published in late 2011, and two more followed in 2013 (see **Table 3**). Altogether, these shortlists included eight more urban highways. Six are included or resemble a route included in the Road System, whereas the other two are partially included in that plan (Northern Peripheral Highway and Canta-Callao Highway). Again, being in a plan might help, but what defines if a project will be prioritized is whether there are investors interested, or at least if the municipal officials think they might. Furthermore, as the table shows, that which began as a diverse list of projects ended up simply as a list of highways.

	2011 The Lima of the Future.	2013 (March) Lima. Confidence, investment and development.	2013 (December) Lima. A city of opportunities.
Highways	La Molina-Santiago de Surco Connector	Northern Peripheral Highway Southern Peripheral Highway Canta-Callao Highway	Southern Periurban Highway Northern Expressway Northern Periurban Highway Rímac-San Martín de Porres Highway
Parking		Underground parking Panamá Ave. Underground parking Washington Park Underground parking Reserva Park	
Transit	Ads in transit stations BRT second line Intercity bus terminal	Ads in transit stations	
Urban renewal	Renewal of Historic Center Renewal of area around bullring	Renewal of Las Malvinas commercial zone	
Urban equipment	Convention center Wholesale market Impound lot for towed cars	Convention center Landfill GHG treatment Internal communications system for MML Hospital improvement (Hogar de la Madre)	
Private developers		Seven public lots for private developments	
Tourism	Touristic circuit: prehispanic tombs		

Table 3. Project shortlists. Three shortlists published by the Metropolitan Municipality of Lima (MML).

In late 2014, the municipality completed a new plan for Lima. The Urban Development Metropolitan Plan for Lima and Callao to 2035 (PLAM 2035) was meant to be a guide for future growth.¹⁴² According to Daniel Ramírez Corzo, few things were clear for those writing the plan. One of them was that the plan was going to be based on projects. Under this vision, influenced by the transformation of Barcelona (cf. Borja 1995; Capel 2005), a few specific projects would spur metropolitan change. It was also clear for them that the plan should be ‘realist,’ that is, it should prioritize what can be done over what would be ideally done but harder to achieve. In practice, this meant not fighting with large developers and construction companies. As an example of this conciliatory position with large private interests, Ramírez Corzo mentioned that the first part of the plan to be approved was the one dedicated to the rezoning of the Lurín and Chillón valleys, the main focus for developers because of their potential as areas for urban expansion. This was done even before the rest of the plan was finished, as a way of getting developers on board with the plan. After that part

¹⁴² The plan was never approved by the city council, which by then had an opposition majority.

was approved and inscribed in zoning ordinances, however, according to Ramírez Corzo, major developers lost interest in supporting the rest of the plan. In the end, the plan was completed too late to be approved by the Villarán administration anyway. The following municipal government shelved it without debating its approval in council.

Another issue in which the plan's catering toward private capital is evident is in the inclusion of fourteen urban highway projects for private investors to submit as 'unsolicited bids.' This is consistent with the two issues Ramírez Corzo pointed out were clear for its writers: to be based on projects and to be possible. As we have seen, the first years of Villarán's term in office convinced her officials that what was possible was what could be done with private finance. The success in outsourcing highways offered a hint of that.

One could argue that the inclusion of highways in the plan does not respond just to catering to private capital and prioritizing what its writers believe is possible, but to an ideological preference for cars over other ways of moving around the city. This is in fact a reason, an issue I will elaborate in the next chapter. However, another section of the plan itself shows that bias in favor of cars was not necessarily widespread among its writers.

According to the plan's vision,

It is essential to materialize a new conception of urban mobility in the city, under principles of sustainability, and giving priority attention to pedestrians, bicyclists, and mass rapid transit in order to improve air quality, and curb noise and greenhouse gas emissions. (PLAM-MO 865)

Thus, the plan's vision shared the urban mobility pyramid so often pushed for by sustainable mobility activists and governments around the globe. In an interview with Carlos Chacón, an architect in charge of the mobility section of the plan, he expressed criticisms of the existing highway PPPs and the use of unsolicited bids.

Private initiatives began in 2009. Its main characteristic is that, regrettably, the municipality had not prioritized... initiatives are not born out of a rationale of state planning... initiatives have always come from outside [the state]. If they are framed

within the urban development plan for Lima it has been almost by chance let's say. There even were projects that were not considered in any urban plan. The one who takes the initiatives is the private sector, and the first one submitted was the Yellow Line.¹⁴³

In his view, then, highway PPPs in Lima are the result of the state giving way for private actors to take the initiative and to decide what project to build. This, according to Chacón, is partially because municipal planning institutions are weak. Rather than an issue of budgets, Chacón understands it as an issue of planning institutions and ideology or, more precisely, a 'fad.'

The private [actor] is the one that takes the initiative, OK? That's a bit the issue. Furthermore, this comes from the *fad* in Chile, that has this too, right? That has a lot of concessions anyway. But in the Lima case I can see that it is not working, I mean it is not working for the benefit of the city. Because the city enters in debt, I mean it transfers its resources to a private firm, for the private firm to do the works, but these works are insufficient. Or do not solve the structural problem of mobility.¹⁴⁴

Chacón proposed something different. He argued for the need to strengthen planning institutions and to actually plan, that is, to write plans that are then followed by policy. He also told me that there was a need to prioritize public transportation as a way to solve what he called the structural problem of mobility. These views are expressed in the PLAM 2035 for Lima, as shown above.

There is, however, an obvious contradiction. Why, if we should be following principles of sustainable mobility, should the section of the plan that is dedicated to proposing specific transportation interventions be dominated by urban highways? I asked Chacón about this apparent contradiction.

What happens is that the plan covers... I mean Lima is a city so complex that it is difficult for a plan to cover specific points. And it is not the case that expressways are bad, right? Not necessarily, right? Because expressways have been proposed a long time ago. For instance, since the 60s or 70s an expressway has been proposed for

¹⁴³ Interview #23, with Carlos Chacón (7/14/2017).

¹⁴⁴ Interview #23, with Carlos Chacón (7/14/2017).

Javier Prado, as a ring road. In the plan there is the proposal for some green axes to be distributed in the city, with the characteristic that they prioritize public transit. But those policies of the plan are being taken by local municipalities...¹⁴⁵

In fact, in most of the highway projects detailed in the plan there is no information about prioritizing public transit. It is true, as I mentioned above, that the plan's vision stands for doing so. But the specifics of the projects proposed, which include details such as the highway length and width, as well as the objectives of each highway, provide very little or no information about how transit or other transportation modes will be included in those projects. So where did these projects come from? Seven out of a total of fourteen had been already formally presented as an unsolicited bid. Out of the other seven, two had already been proposed in previous project shortlists.

The transportation section of the PLAM 2035, then, largely institutionalized what at first were informal conversations between power brokers and later became project shortlists. By including what is deemed possible in a context of scarce public funds and abundant private capital looking for long-term investments, a section of the plan became a repository of possible highway PPPs.

In the next section, I will discuss some of the shortcomings of the highway PPPs that were approved.

3.5. Unfulfilled promises

The three highway projects have been plagued with problems. The Yellow Line was scheduled to open in early 2013, but was completed only five years later. While the contract has been renegotiated repeatedly, none of the changes affected the main piece of infrastructure, a tunnel below the river. The number of renegotiations, in turn, also speak to

¹⁴⁵ Interview #23, with Carlos Chacón (7/14/2017).

serious issues with the project and the PPPs scheme more broadly. The first phase of renegotiations, discussed at the beginning of the chapter, began shortly after Villarán took power. The main objective was to appease protests, although the Villarán administration used the opportunity to push smaller projects. The changes for the affected neighborhoods included the improvement of the relocation conditions and the allotment of USD 2.5 million for investment in local infrastructure.¹⁴⁶

Some of the changes reveal issues with how the renegotiation was made. According to municipal officials, the contract was harmful to the interests of the municipality, mainly because it transferred two thirds of the total toll revenue for thirty years without getting something equally valuable in exchange.¹⁴⁷ The renegotiation, however, did not alter the financial equilibrium of the concession. The concession period became 33.3% longer (from 30 to 40 years), while investment grew only 22.6% (from USD 571 to 700 million), and 7% of the tolls would return to the municipal government. Whether the new revenue scheme benefits the municipality remains to be seen. But that was not what the renegotiation intended anyway. For the municipal government, it was a way of alleviating its negative impact on a low-income neighborhood and of including other, smaller projects, in the concession. For the concessionaire, it was a way of allowing the project to go through while including the improved compensation packages within the financial structure of the concession. In fact, for Gustavo Guerra-García, it was OAS who won with the renegotiation, as protests would have likely stalled the project.¹⁴⁸ The addendum clarified some issues of the original contract and established additional protections in case special events delayed construction.¹⁴⁹

¹⁴⁶ This episode is discussed in chapter 5.

¹⁴⁷ Interviews #18 and #20, with Miguel Priale (5/9/2017 and 6/14/2017) and interview #19, with Gustavo Guerra García (5/22/2017).

¹⁴⁸ Interview #19, with Gustavo Guerra García (5/22/2017).

¹⁴⁹ Addendum 1, 2/13/2013.

By late 2014, when Villarán's government was about to end, neither the park nor the San Juan de Lurigancho viaduct had begun construction. At that time, Castañeda aides were engaging in talks with OAS representatives. Giselle Zegarra had been manager of GPIIP during Castañeda's second term, and signed the contract with OAS in 2009 as the municipality's representative. In conversations carried out between August and November 2014, Zegarra asked Leo Pinheiro, then president of OAS, not to sign the last agreements with the municipality.¹⁵⁰ Castañeda was running for mayor again and it was almost certain that he would win.¹⁵¹ Zegarra offered OAS better conditions if they did not comply with what they had agreed with Villarán's administration. OAS did as Zegarra suggested. When Villarán left office, in January 2015, the viaduct and the park were not in OAS' plans anymore.¹⁵²

Even before Castañeda's comeback as mayor, then, he had started further negotiations with OAS on what to do with the newly available money. After winning the election, he and OAS began talks to redirect the funds previously allocated to the park into projects he wanted to do. Initially, his idea was to do the BRT line that was cancelled in the previous administration. However, Castañeda and OAS did not reach an agreement with creditors on this.¹⁵³ Instead, they decided to use the funds to build an underpass near downtown, in an area that was not part of the original concession. According to some lawyers I spoke to, this is illegal because it alters the objective of the original project. The underpass was received with protests by environmental activists, architecture students and neighbors, but it was built anyway.¹⁵⁴

¹⁵⁰ IDL-Reporteros. <https://idl-reporteros.pe/el-champagne-que-no-se-descorcho/> (accessed 10/23/2018).

¹⁵¹ According to an August 2014 GFK poll, 48% would vote for Castañeda, while 13% would vote for Villarán, who was in second place. In the October 2014 election, Castañeda won with 51% of the vote.

¹⁵² More on this in chapter 5.

¹⁵³ Interview #15 (4/6/2017).

¹⁵⁴ I elaborate on this conflict in chapter 5.

The alteration of the original project was not the only irregularity of the underpass. Its construction began before a full technical report justifying it was made. Furthermore, an environmental impact report dated March 2015 included references to reports that did not exist until the following month. OAS also produced technical reports in 2014, when Villarán was still the mayor and the underpass was not still not formally considered as part of the Línea Amarilla project.¹⁵⁵ Investigative journalists estimated that the difference between the costs declared by OAS and the market costs of the same portions of the project was USD 387,000.¹⁵⁶ Moreover, originally the municipality would have been in charge of maintaining the underpass. But the Ministry of Finance intervened, as that would mean that the concession was no longer ‘self-financed.’¹⁵⁷ This led OAS to take over the costs of maintaining the underpass through an escrow.

What is remarkable is the flexibility that the Peruvian PPP model allowed for under-the-table deals. Villarán’s political weakness was exploited by Castañeda and Brazilian firm OAS to redirect funds to a different project done under little scrutiny. Peruvian law mandates that every public investment project be approved by the Ministry of Finance. In this case, however, municipal representatives argued that the project was done with private funds, so it did not require approval by the national government. While the legality of this claimed is disputed, the fact is that the project was carried out without legal consequences, and the funds that were originally earmarked for a highway project with some additions was now redirected to an investment in another area of the city.

This opens a serious issue about the way PPPs are done in Peru. The ease with which they can be renegotiated means that PPPs can become a tool to overcome regular financial responsibility and corruption controls. If a company has already won a contract, it only needs

¹⁵⁵ <https://elcomercio.pe/lima/by-pass-28-julio-revelan-irregularidades-informe-tecnico-235762> (accessed 10/23/2018).

¹⁵⁶ <https://idl-reporteros.pe/bypaseo-de-sobrecostos/> (accessed 10/23/2018).

¹⁵⁷ Interview #28, with former Finance Minister Alonso Segura (1/25/2018).

a good relationship with the local government to transform a project into whatever the firm or the government wants it to be, without competition and with little oversight. Funds that were originally public can be moved around without regular controls. In this case, we should remember that, during the first five years of the concession (2013 to mid-2018) the new highway section had not been opened yet. This means that all the funds collected in the concession came from existing public revenue sources that were transferred to the private firm. But channeling them through a PPP means that they are shielded from some public controls. It is likely that the extra costs can be at least partially attributed to corruption. OAS is a company that has been found guilty of corruption charges, and is one of the Brazilian firms that is under the Lava Jato investigation.¹⁵⁸ Mayor Luis Castañeda also has some serious corruption allegations.¹⁵⁹ In 2016 the head of ProEtica, a local corruption watchdog, declared that Castañeda had a ‘reserved and secretist style’ that was ‘unacceptable for a democracy.’¹⁶⁰ It is possible that plain corruption explains part of the gap between original valuation and actual worth.

The ease with which renegotiations are made, furthermore, undermines the economics textbook benefits of PPPs. Risk transfer is often mentioned by experts and high-level decision-makers in the field as the single most important factor when considering PPPs over traditional public provision (Engel, Fischer, and Galetovic 2014). The ability to repeatedly renegotiate contracts, in turn, is often reported as a common way to dissipate the transfer of risk to the private sector, or even to return the risk back into the public sector. For instance, a firm can submit a bid knowingly underestimating the cost, if it can expect to then renegotiate

¹⁵⁸ Lava Jato is the name of a major investigation of corruption in both Brazil and the Latin American countries in which Brazilian construction companies operate, including Peru. <http://politica.estadao.com.br/blogs/fausto-macedo/justica-condena-cupula-da-oas-na-lava-jato/> (accessed 10/23/2018).

¹⁵⁹ <https://elcomercio.pe/lima/luis-castaneda-fiscalia-pidio-4-anos-prision-alcaldede-240981> and <https://elcomercio.pe/lima/comunicore-importante-caso-horas-sentencia-162084> (accessed 10/23/2018).

¹⁶⁰ La Republica 2016 <http://larepublica.pe/politica/798273-proetica-hay-un-manejo-secreto-de-las-actividades-de-la-municipalidad-de-lima> (accessed 10/23/2018).

the contract in order to make the project profitable. In that case, at least part of the risks initially assumed to be transferred to the firm would go back to the state. If the firms know it is easy to renegotiate contracts, they have an incentive to underestimate risks and costs. Despite knowledge of this issue, renegotiations are very common in Latin American PPPs, and particularly in Peru (Estache, Trujillo, and Guasch 2007; José Luis Guasch et al. 2014).

Even without renegotiations, however, the state always bears some risk that is not always officially accounted for. If a piece of infrastructure fails and the company operating it goes bankrupt, the public responsibility for keeping that infrastructure usable remains on the side of the state. In those cases, bailouts are common. For instance, the Spanish government has paid off billions of dollars to private concessionaires that underestimated demand flows in new highways.¹⁶¹ When pension funds have invested in those highways, as in the case of Peru, the public responsibility of the state for saving them goes beyond making them usable and into guaranteeing the social security of millions of its citizens. Risk transfer schemes not always consider this responsibility. I asked former Finance Minister Alonso Segura about this issue

AS: if the concessionaire fails, the government can open a bidding process to find another concessionaire to take over the project.

MS: what happens if it is not that the parent company has problems, but the concession itself is not profitable? In Spain, for instance, they overestimated demand and some of them have been bailed out by the government.

AS: I will go over that now. Talking about pension funds is an extreme argument because, I will tell you why. Pension funds can choose to enter, they are not forced to do so, at least in Peru... So saying that we should not do PPPs because if there is a problem with the concessionaire the pensioners will lose money is a fallacious argument... It is for the good of the pensioners because most concessions will provide a long-term return... so will they lose more by investing on a PPP or by doing so on regular company shares?

MS: From the point of view of the pension funds, sure, it is riskier to invest in a regular company than in a concession. But that is because you know that if a concession goes bankrupt the state will...

¹⁶¹ https://elpais.com/elpais/2016/12/12/inenglish/1481549182_337869.html
https://cincodias.elpais.com/cincodias/2018/02/16/companias/1518789728_812667.html (accessed 10/23/2018).

AS: No, *the state can decide not to enter*. So the point there is, actually concessions help improve the profitability of pension funds because they provide long-term returns.¹⁶²

Segura is probably right in saying that the fact that pension funds invest in infrastructure is not a reason not to do PPPs.¹⁶³ But that is not the issue. Rather, the involvement of pension funds skews risk transfer in a way that is not accounted for: there is a political risk in letting pension funds lose vast amounts of money. Segura is also right in saying that the government can decide not to bailout a bankrupt concession. The issue is that he is taking a purely technocratic view that does not consider the political economic consequences of government actions regarding infrastructure and pension funds. If a piece of infrastructure is not profitable and the concessionaire goes bankrupt because of this, the public responsibility of maintaining that piece of infrastructure falls on the state. Of course, a government *can* decide not to intervene and simply let a highway become unusable. It *can* also decide not to bailout the pension funds that invested in the highway, leaving millions of citizens without social security. The issue is to ask whether a democratic government will ever take the risk of doing such a thing. Simply affirming that the government *can* do so is not enough.

In August 2016, French corporation Vinci bought the Yellow Line concession for USD 1.66bn.¹⁶⁴ By then, Lamsac had been collecting tolls for almost three years, earning a total of approximately USD 220 million after tax. According to a report from the Office of the Comptroller, by the end of August 2016 only 62% of the project had been completed.¹⁶⁵ Considering that total investment was estimated in USD 700 million, this means that, when

¹⁶² Interview #28, with former Finance Minister Alonso Segura (1/25/2018). Emphasis is mine.

¹⁶³ According to an interviewee that works at the public pension investment fund, Yellow Line bonds were particularly profitable: they carry a 8% yearly return, compared to a usual 4%.

¹⁶⁴ <http://www.latinfinance.com/daily-briefs/2016/8/9/vinci-buys-peruvian-road-concession> (accessed 10/23/2018).

¹⁶⁵ Office of the Comptroller, Nota de prensa N° 64-2016-CG/COM.

OAS/Invepar sold the concession, it had invested only USD 434 million. If we deduct the USD 220 million in revenues, we get that for a net expenditure of USD 214 million, OAS/Invepar got USD 1.442bn in profits, a 675% return over five years starting in mid-2011, when construction began. What explains these massive profits?

Probably the main reason is that the concession was highly undervalued from the outset.¹⁶⁶ We should consider that, while the tendering process is, in theory, competitive, the project was awarded to the original proponent with no participation of other bidders. In practice, then, there was no competition. But this is not an anomaly. Instead, the vast majority of projects awarded via unsolicited bids in Peru has been adjudicated to the original and sole proponent (Takano 2017, 190). With no competition, the process resembles a direct negotiation scenario rather than a competitive tendering one. In fact, judicial investigations have found out that it is common practice for large construction firms to take turns in winning projects among them. When I asked Gonzalo Ferraro,¹⁶⁷ director at Graña y Montero, why his company did not bid for the Yellow Line project, he mentioned the difficulties in building a tunnel below the river, which required knowledge they did not have. Shortly after, Lamsac hired Graña y Montero to build that tunnel.¹⁶⁸ Rather than competing, they operate in a cartel-like way by proposing another project rather than competing for an existing one. The so-

¹⁶⁶ According to the original proposal and the contract, the tunnel below the river, which is the costlier portion of the project, would have ‘approximately 2 kilometers.’ The tunnel, now completed, is 1.6 km long. According to an investigation done by journalist Daniel Yovera, the difference of 0.4 km in length accounts for a difference of USD 110 million in construction costs. The TV report, called ‘Pactos desmedidos’, was aired on Cuarto Poder (América TV) on June 2nd, 2019. When Lamsac hired Graña y Montero to build the tunnel, it announced that it would be 1.8 kilometers long. <http://lamsac.com.pe/noticias/lamsac-firma-contrato-con-gym-para-el-megaproyecto-via-expresa-linea-amarilla> (accessed 6/4/2019).

¹⁶⁷ Interview #8 (6/7/2016).

¹⁶⁸ <http://www.lamsac.com.pe/noticias/lamsac-firma-contrato-con-gym-para-el-megaproyecto-via-expresa-linea-amarilla> and <https://investorrelations.granaymontero.com.pe/es/press-release/grana-y-montero-firma-contrato-con-lamsac-para-el-megaproyecto-expresa-linea-amarilla> (accessed 6/4/2019).

El contrato comprende la construcción de la sección 2 de la Vía Expresa Línea Amarilla que abarca 9 kilómetros de longitud e incluye el Puente Bella Unión, 1 túnel de 1.8 kilómetros bajo el río Rímac, 10 viaductos y 3 plazas de peaje.”

called ‘builders club’ won 90% of the contracts that were worth over USD 30 million between 2011 and 2014.¹⁶⁹

But even without cartel-like behavior by firms, the concession model is designed to prevent, rather than promote, competition. As I mentioned above, it is all but impossible for alternative consortia to prepare offers within the 90-day timeline. But that is not the only barrier to competition. If another firm is interested in bidding, it must guarantee that, if it wins, it will pay the original proponent for the feasibility studies. This gives the second bidder the right to look into some of the details of the proposal. Gonzalo Ferraro, director at Graña y Montero, also cited this requirement as a reason for them not to bid for other private initiatives. In the case of the Yellow Line, OAS had declared that their studies cost USD 1 million, and GyM was not willing to guarantee a payment that high.¹⁷⁰ A further barrier to competition is that the scheme gives the original proponent the right to equal a winning bid. This means that, in case it loses the competition, it can submit a bid that is worth the same as the winning one. The tie would then be solved by using only the competition factor.¹⁷¹

All in all, the consequence is that firms would rather submit an unsolicited bid for a different project than compete on an existing one that has been submitted by a different firm. The ‘builders club’ becomes the way of formalizing this behavior among firms. But it is not essential, as the scheme is designed to prevent competition. The lack of competition, of course, means that information about costs, revenue projections, risks, and all other issues that must be considered in the negotiation become even more important. However, the scheme is not designed to provide local governments the tools to close potential gaps in information.

¹⁶⁹ <http://larepublica.pe/politica/1173678-los-negocios-secretos-de-el-club-de-la-construcciOn> (accessed 10/23/2018).

¹⁷⁰ Ferraro mentioned this in the interview, although he recalled a different value, USD 10 million.

¹⁷¹ The competition factor is a specific part of the project that is selected by the municipality as the decisive issue. In the case of the Yellow Line, it was the length of the BRT line.

Negotiations between the municipal government and large corporations are done under asymmetric information. The municipal government does not have technocrats with the qualifications to compete in technical knowledge with representatives of private firms that are used to negotiating contracts for large infrastructure projects.¹⁷² This has been confirmed to me by representatives at private firms, former public officials, and Peruvian experts on public-private partnerships. In fact, with projects being conceived in the private sector, who is in charge of producing the original assessment reports, the scheme creates an information asymmetry by design. To aggravate the issue further, the municipal government decided not to submit the Yellow Line proposal to the Ministry of Finance for review. The law is ambiguous in whether it is obliged to do so, and lawyers in behalf of the municipality and the firms argued that it did not actually require the approval of the Ministry of Finance.

Another explanation for at least a portion of the difference in valuations is that Vinci was not operating in Peru until then. Not being part of the ‘builders club,’ it would have been hard for Vinci to start operating in Peru by winning a contract. Thus, it might have overpaid as a way to enter the market and potentially the cartel as well. In other words, Vinci had an incentive to pay a premium in order to enter a circle that would allow it to capture rents in future projects.

In any case, it was not OAS’ capacity to deliver value for money that won them the concession. This is a case of arbitrage: an economic actor profiting over differences in an asset price. The asset is the concession, and the difference in price between what OAS paid (USD 214 million) and what it got in exchange for that payment (USD 1.66 billion) five years later is what allowed it to profit. As Guillermo Takano has argued, this is a clear case of rent-seeking behavior (Takano 2017).

¹⁷² See Ashton, Doussard, and Weber 2012, who argue that governments in the US do not understand financial engineering techniques used by private investors to increase the current value of future revenues.

The second highway project, New Roads of Lima, also faced some major problems. In January 2017, new toll booths recently set up by the concessionaire in the northern district of Puente Piedra were burned down by angry protestors.¹⁷³ The vast majority of the interventions the project would bring were south of Puente Piedra. People already had to pay a toll in that place, but only in one direction. When the road was given in concession, existing tolls were raised and a new toll meant that people would have to pay in both directions. To aggravate the issue, people from Puente Piedra saw little benefits for travel within the district, and the toll effectively divided the district in two: it was impossible to reach the southern tip of the district without going through the new toll. The only alternatives for traveling from downtown Puente Piedra to downtown Lima would take over 25 minutes longer.

But that was not the only problem with New Roads of Lima.¹⁷⁴ In 2014, a corruption scandal involving Odebrecht and other large construction conglomerates began in. In early 2017, the Peruvian government passed a law to freeze those firms' accounts.¹⁷⁵ By October 2017, 147 firms that were operating as Odebrecht contractors in that and other infrastructure projects had gone bankrupt. Odebrecht also owed USD 35.7 million to 247 contractors of the New Roads of Lima project. According to the spokesman of those contractors, that affected 40 thousand workers, while several of the firms that Odebrecht outsourced to were at risk of bankruptcy because of their own debts.¹⁷⁶ To make things worse, construction has been stalled. The extension of the Ramiro Prialé highway was set to open in 2017 but construction stopped during most of that year and it is still under construction. Two other reasons also explain delays. First, the municipality has not been able to secure the full right of way by buying out all land owners. Usually it is faster to buy out every land owner individually

¹⁷³ I elaborate on this conflict in chapter 5.

¹⁷⁴ In June 2016, Odebrecht it sold 57% of Rutas de Lima to investment fund Brookfield for USD 430 million. Odebrecht retained 25% of the shares, while Sigma SAFI has 18%.

¹⁷⁵ Decreto de Urgencia 003-2017 (2/11/2017).

¹⁷⁶ <http://larepublica.pe/economia/1050880-contratistas-de-odebrecht-afectados-por-deudas> (accessed 3/7/2019)

rather than waiting for eminent domain to go through. Problems between land owners, the municipality and the concessionaire, however, have delayed the process.¹⁷⁷ And second, in early 2017 the El Niño phenomenon intensified mudslides (‘huaycos’) in the area.¹⁷⁸

According to the Office of the Comptroller, securing the right of way and the failure to secure enough funding are the two main causes for the delay.¹⁷⁹

The economic structure of the project also presents problems. In theory, 4% of the toll revenues would go back to the Municipality of Lima. However, according to the contract that will only happen once all mandatory works have been completed.¹⁸⁰ This is a perverse incentive for the concessionaire to delay construction. Furthermore, construction costs have been higher than initially estimated. As a result, the Municipality of Lima has agreed to compensate the concessionaire, effectively assuming risks that according to the contract had been transferred to the consortium. In June 30th, 2016, an agreement between the MML and Rutas de Lima allowed the concessionaire to increase toll fares and implement a new toll booth, both of which went against conditions set in the contract.¹⁸¹ The agreement was done while Odebrecht was negotiating the sale of a 57% share of Rutas de Lima to investment fund Brookfield.¹⁸² According to the Office of the Comptroller, the agreement is illegal and has allowed the concessionaire to earn an excess USD 1.5 million until May 2017. Other agreements led to the suspension of mandatory works for up to USD 92 million, as well as USD 44 million in compensation from the MML to Rutas de Lima. Furthermore, the MML failed to penalize the concessionaire for delays, losing USD 642 thousand.¹⁸³

¹⁷⁷ <https://elcomercio.pe/lima/obras/ramiro-priale-culminara-gestion-luis-castaneda-fotos-noticia-524972> (accessed 3/7/2019)

¹⁷⁸ <https://larepublica.pe/sociedad/1305507-autopista-priale-cubrir-tramo-final-30-minutos> (accessed 3/7/2019)

¹⁷⁹ Office of the Comptroller, Informe de seguimiento y monitoreo de proyectos N° 00010-2017-CF/MPROY.

¹⁸⁰ Contract between the Municipality of Lima and Rutas de Lima, clause 10.16.

¹⁸¹ Office of the Comptroller, Informe de Auditoría N° 309-CG/MPROY-AC

¹⁸² <http://www.bnamericas.com/en/news/privatization/brookfield-acquiring-odebrecht-assets-in-brazil-peru> (accessed 10/23/2018).

¹⁸³ Office of the Comptroller, Informe de Auditoría N° 309-CG/MPROY-AC

The Southern Expressway will extend an existing highway, the Paseo de la República Expressway, to the south until it meets another highway, the South Pan-American Highway. Along the Paseo de la República Expressway runs Lima's only BRT line. However, rather than extending the BRT line as part of the Southern Expressway project, it will only leave the median untouched in order for the municipal government to build the infrastructure in the future. The Southern Expressway was set to open in 2018, but construction has not begun yet. One reason for the delay is that the municipality has not been able to clear the land through eminent domain.¹⁸⁴ Another reason is that, after Mayor Castañeda returned to power in 2015, he sought to renegotiate the contract in order to include the infrastructure for the BRT extension and to increase the funds dedicated to relocations and compensation. In June 2017, the municipality and the concessionaire agreed to suspend the project for twelve months in order to sort those issues. As of early 2019, the project has remained stalled.

But the most serious problem with the concession is different. Similarly to the other two projects, this one is categorized as a 'self-financed' private initiative. Technically, that category allows for minimum revenues to be guaranteed by the government. The probability that the guarantee is activated, however, must be below 10% for the first five years of operation. The studies that provide such probabilities are done by the firm that proposed the project, but the municipality has to agree to the declared probability. In this case, the municipality did not challenge the 'self-financing' nature of the project, and approved it as such. Again, according to the head of GyM, it is likely that there was asymmetric information between the firm and the municipality. The studies done by GyM for the project cost more than what the government-side studies for the much larger Yellow Line had cost a few years before. According to Gonzalo Ferraro, Executive President at Graña y Montero's

¹⁸⁴ <https://larepublica.pe/sociedad/1094551-aun-no-se-expropiaron-predios-para-que-se-inicie-la-via-expressa-sur> (accessed 10/23/2018)

infrastructure branch, the demand studies for the Southern Expressway cost around USD 300,000.¹⁸⁵ He does not believe the municipality is able to pay for a similar study, which would be needed to cover for this lack of in-house knowledge.¹⁸⁶ The municipality did not send the project for review to the Ministry of Finance, either, where savvier technocrats could have challenged it. The urgency to approve the project in the midst of a political crisis was more important.

In case annual toll revenues are lower than USD 18 million for the first two years and below USD 19.67 million for the following fifteen, the municipality would have to subsidize operations for up to USD 10 million per year.¹⁸⁷ This would not only affect municipal finances, but could influence future land use planning as well. The real estate branch of Graña y Montero, Viva GyM, is one of the main urban developers in the country. It is also developing suburbs in Villa El Salvador and an industrial park in Lurín called Almonte, both in the southern part of Lima. As it happens, the Southern Expressway would significantly shorten travel times between those areas and the city's main employment centers, the San Isidro financial district and downtown Lima. So the same corporation has planned developments and the road to reach them, and will profit from both. In case guarantees are activated, the municipal government will have an incentive to allow further development in that part of the city in a way that attracts the most automobile traffic. When I interviewed Gonzalo Ferraro, he mentioned that there were rumors about the relationship between the highway and developments south of it. I had not asked him about this.¹⁸⁸

Gonzalo Ferraro: they often say that, for instance, GyM has done the Southern Expressway because it is interested because it has land in Villa El Salvador, I ask

¹⁸⁵ Interview #8, with Gonzalo Ferraro, (6/7/2017). Graña y Montero's infrastructure branch is the one in charge of negotiating and operating infrastructure concessions.

¹⁸⁶ In the interview, Gonzalo Ferraro told me that he perceived that there was asymmetric information between his firm and the municipality.

¹⁸⁷ The exact period depends upon debt structures, but is initially estimated to be a total of 17 (2+15) years. In case debt obligations last longer than that, the concessionaire can ask for the guarantee period to be extended.

¹⁸⁸ The interview was also attended by the Head of Project Management at GyM Infraestructura), the Business Development Manager at GyM Infraestructura) and the Head of Corporate Branding at the GyM Group).

them to tell me what land we have in Villa El Salvador. I mean, our four areas of business operate in a completely independent manner.

Daniel Graña: to clarify the issue of the Southern Expressway and Villa El Salvador... we have a housing development in Villa El Salvador. You had no idea...

GF: no, I had no idea. Moreover, the Southern Expressway has... we have three years working on the Southern Expressway, and the other project hmm... I do not know really, I have no idea, I did not even know it existed.

DG: or, for instance, Almonte, in Lurín, it is not that you thought about doing the Southern Expressway because...

GF: I will put it backwards. Almonte is a development, they bought land I do not know how many years ago and Sedapal came and built a water treatment plant in Almonte's property and told them that it would expropriate 500 hectares. They never did the eminent domain process, and did not pay for the land.

Mariana Velarde: it is a piece of land in Lurín and two companies have already bought... It is a project of the real estate business area.

GF: so one day they call me from Sedapal and they tell me 'we want to talk with you because you can help us. The plant and your sister Viva Gym want to take the land from us, to expel us.' We discussed and I told them: 'I will submit an unsolicited bid to operate the plant, I operate the water treatment plant, improve it, and you, instead of paying me 10 that will be enough to pay for the operation, you pay me 11, so you pay me for the operation and with the excess 1 you pay for what I have to pay for the piece of land that you never paid for.' Great, so now we are in the process of discussing the terms (...)

DG: but in conclusion, the Southern Expressway for instance is not tied to the development in Villa El Salvador.

GF: it's more, I do not even know where the Villa El Salvador development is located, so no, we do not do it with a double intention if that is... eventually, I just gave you an example of one project that comes out of another one (...) we will build a desalinization plant, we will take water from the ocean, make it potable, and pump it all the way to where Almonte's problems are, because Almonte does not have water. So you solve a problem for Almonte, Almonte can charge a little more for its land, but rather than being about charging more, it is about being able to sell. Today it cannot sell them because they are in a sandy area.

MV: we have already sold—

GF: You know when it started selling? When we showed that the unsolicited bid had already been submitted and is being developed. Only then it sold land, beforehand it could not.¹⁸⁹

The urgency to clarify something I did not ask reveals that this was an issue Ferraro and his team wanted to set straight. The apparent lapses in comparing the time they had been working on the highway to the time he did not know the Villa El Salvador development had reveal he might have known more than he is telling. But whether he knew about the

¹⁸⁹ Interview #8 (6/7/2017).

development in Villa El Salvador or not becomes irrelevant when he explains at length the links between another project done by Viva GyM and his water treatment plant project. In fact, it would be naive to think that a successful corporation that specializes in building and operating urban services and infrastructure as well as developing urban land would not be aware of the links between the two and the business opportunities that controlling both would provide. The infrastructure and the real estate branches, for instance, share committee members. In 2015, two of GyM's infrastructure branch committee members were also part of the real estate branch committee. The president of both committees was the same person, José Graña Miró Quesada (Grupo Graña y Montero 2016). A few minutes later in the same interview, Ferraro explained that even within the Southern Expressway project they were looking for opportunities to develop urban land.

MS: what type of things did the municipality ask for [when negotiating the Southern Expressway]?

GF: the municipality asked for all types of stuff. So, the municipality for instance, we told them, OK, the Metropolitano, what we will do with the Metropolitano. No, I will put a station with capacity for one million passengers. Transfer capacity for one million people. Don't pester me, you do not need it and I cannot pay for it. OK, but the residual space. Hey, but the residual space, if it is in the middle of the concession do not give it to a third party, it is mine, let me build an office building, I don't know. In the end we lost, they did not give it to us, the municipality kept it (...) we fought for taking advantage of that residual space for building a project that we could gain from, exploit it, but the municipality said no.

MS: what could you have used it for?

GF: to build an office building for instance.¹⁹⁰

To clarify, the infrastructure branch of GyM, of which Ferraro is executive president, does not build office buildings. Viva GyM, the one that is developing land on the other side of the Southern Expressway, does.

¹⁹⁰ Interview #8 (6/7/2017).

In the end, whether he individually knew about the development in Villa El Salvador is irrelevant. What matters is that a private firm is bundling different parts of the planning process. And that because of that bundling and the conditions agreed for the Southern Expressway, GyM can have the upper hand in negotiating future conditions for development south of Lima.

Since the Southern Expressway has not yet been opened, we cannot be certain about whether the project will require subsidies. But there are reasons to suspect that probabilities are much higher than declared. According to brochures published by the concessionaire, during the first years of operation 75,000 cars will go through the highway per day. The toll is set by a formula that multiplies the initial toll price (PEN 1.69, around USDD 0.52) by a factor that can be based on change in the exchange rate, inflation, or a combination of both. The concessionaires decides which factor to use, which in practice will mean that, between variation in exchange rate and variation in inflation, the highest applies. The formula sets January 2011 as the baseline. If we apply it for January 2018 prices, the toll would have been priced at PEN 2.10 (around USD 0.65). Multiplied by the number of cars given by the concessionaire ($75,000 \times 365 \times 2.10$), if the project had opened in January 2018, during the first year of operation revenues would have been PEN 57'487,500 (USD 17'797,987.60), slightly less than the minimum annual guaranteed revenue.¹⁹¹ In other words, even by the firm's own estimations, guarantees would be activated during the first year of operation. The municipality, by the firm's own estimations, would subsidize operations for USD 202,012.38 during the first year. By the third year, the minimal annual guaranteed revenue jumps to USD 19.67 million, so if revenues do not grow at least 10.12% over those two years, the third year would be subsidized as well. According to estimates publicized by the firm, then, the

¹⁹¹ The consumer price index (CPI) for January 2011 was 102.58 with 2009 as the baseline. In January 2018, it was 127.59. The exchange rate for January 2011 was 2.80. For January 2018 it was 3.23.

probability of getting subsidies is well above 10%. If the statistical expected value (75,000) would activate the guarantees, then the probability that subsidies are in fact needed is over 50%.¹⁹² Of course, given that not reaching a certain flow would mean that they are going to receive subsidies, the corporation has incentives to inflate the estimations they use to negotiate. In fact, according to the demand estimates included in the contract, during 2018, which would have been the first year of operation, 86,670 cars would have used the highway every day on average, for revenues of USD 20'567,354.50 million.

Thus, this is not just about rent-seeking behavior or corruption by individual actors. As I have shown, the concession model is designed to promote this behavior, not to prevent it. The asymmetry of information by design, along with the prevention of competition by design, are an open door for rent-seeking behavior. Going beyond this would require us to think not about what is wrong under standard assumptions for privatization (or PPPs) to work. Rather, we should ask why a model that does not work under its own premises is still pushed as the main way of delivering large-scale projects in the country. A first step is to recognize the concession model for local governments as a planned, well-thought scheme. The problems mentioned above are not failures, they are features.

3.6. The political economy of city unplanning

The national government had spotted some of the problems with how the PPP scheme was working. Reform-minded technocrats at the Ministry of Finance were upset that the municipal government had not sent them the projects for review. The municipality argued that the law did not mandate them to do so for 'self-financed' projects. The Ministry responded by changing the law in order to explicitly require all PPPs, 'self-financed' or not,

¹⁹² If we build a normal curve using 75,000 as the mean and median, the expected revenues would be below USD 18'000,000. The probability of traffic revenues falling on the left side of USD 18'000,000, then, is over 50% for the first year of operations.

to be reviewed by the national government. This would apply to any addenda as well. In an interview I held with former Minister of Finance (2014-16) Alonso Segura, he identified several issues that needed to be taken care of. From his point of view, the main reason to select PPPs over public procurement is the capacity to transfer risks to the private sector, which in turn could provide value for money. In contrast, the lack of oversight had been a major cause for the municipality to lose a large portion of its revenues for a long time without obtaining a benefit that justified it.¹⁹³ The lack of technical capacity at the municipal level, together with a set of incentives that worked in favor of approving projects, led to this. According to Segura, increasing oversight by a separate entity with better technical capacity could overcome the issue.

Another issue that former minister Alonso Segura identified as a problem was the lack of competition. As I have explained above, the scheme is designed to prevent competition. The 90-day window is not enough for an alternative bidder to prepare a proposal. The 2015 reform led by Segura extended the window to 150 days. According to a consultant at Apoyo Consultoría, this was seen by the private sector as a disincentive to submit bids.¹⁹⁴ The bidding system also grants the original proponent the right to present a second bid in case it loses against an alternative bidder. Segura told me he regrets not changing that provision as well.

Furthermore, Segura also identified the lack of planning as an issue. Rather than accepting individual bids presented by private firms without conforming to a plan, the reform mandated that each government office in charge of dealing with PPPs would have to produce a multiannual investment plan. Now, unsolicited proposals would have to satisfy priorities identified in that plan. The length of the informal negotiations between private firms and

¹⁹³ Interview #28, with Alonso Segura (1/25/2018).

¹⁹⁴ Interview #12 (7/23/2016).. Also according to Segura, the reform was done against the will of large private sector players.

government officials, however, means that these plans can be easily tailored for whatever unsolicited bid is being discussed before being formally proposed. The negotiation for the Yellow Line, for instance, began over two years before the bid was formalized. In the meantime, the municipal government changed land uses in order to allow the project to go through. If needed, it could also have tailored the multiannual investment plan in the same way. Similarly, as I mentioned, the metropolitan plan of 2014 includes a list of highway projects, some of which, if not all, have been discussed informally between municipal officials and private firms.

In any case, the reform was largely retracted in 2016. A new law maintained the requirement for multiannual plans, but it also reduced the oversight capabilities of the Ministry of Finance for ‘self-financed’ projects and shortened the bidding window back to 90 days. Where reform-minded technocrats saw a problem for the correct functioning of a PPP scheme under its own premises of competitive bidding, the new government (Pedro Pablo Kuczynski, 2016-2018) saw an opportunity to accelerate investment. Improving controls to encourage competition and improve value for money was, again, seen simply as an obstacle to investment.

The view of the counter-reformers is consistent with how the PPP scheme was actually designed to work. In contrast with what Segura expected the model to deliver, it was not value for money or the transfer of risks that explained the sudden push to promote PPPs at the local level. Instead, it was seen as a way to attract high levels of investment, in a short period of time, for budget-constrained local governments. It was that what was mentioned by elected officials from the Castañeda government as one of the main benefits of PPPs. During the Villarán administration this logic remained. In the debate in which the council approved the New Roads of Lima project, municipal manager José Miguel Castro said that

There is a very aggressive process of promotion of private investment, because we believe that in this way we can build a lot faster, and all the investment that the city

needs to become a competitive city and to look into the future with a much more positive outlook can be built in a more agile way.¹⁹⁵

For him, the perceived speediness of PPPs was a key reason for using them. The municipal manager for the promotion of private investment, Domingo Arzubialde, argued during the same debate that

Metropolitan Lima has a deficit of USD 5.3 billion regarding the implementation of its road plan. It is precisely for that reason that these investment opportunities are so important, for us to be able to bring our citizens a higher quality of life.¹⁹⁶

No mentions were made about risk transfer or value for money. Instead, according to its high-level public officials, the municipality of Lima approved PPPs because that way it could attract investment that was not available otherwise, and because it perceived that projects could be delivered faster.

Congress' explanatory memorandum for the 2008 reform also mentioned the ability to attract investment as one of the main factors for facilitating PPPs. And finally, the regulations that prioritize expediency over competition speak to the same rationale.

When the priority is to attract investors, value for money can become an obstacle. If the objective is to increase investment, it might be a better option to allow private firms to capture rents than to force them to compete. It should be no surprise then that the Yellow Line project was undervalued enough for the concessionaire to sell at a large profit a few years before completing construction.

However, the model is not reduced to eliminating barriers for investors to take advantage of the rents this creates. Neither is it simply a case of rent capture. It goes well beyond that. The role of the state is not limited to eliminating competition. It also has to create the conditions for the private sector to identify profitable investments, regardless of

¹⁹⁵ Council minutes. Acta 22-2012 (5/3/2012).

¹⁹⁶ Council minutes. Acta 22-2012 (5/3/2012).

rents. This movement is what I call ‘unplanning’ and can be seen in each of the projects approved by the municipal government, as well as those that were pre-approved.

In the case of the Yellow Line, the municipal government created the conditions for OAS to intervene in at least three ways that speak about unplanning. First, by going back on its own decisions about the conditions of inhabitability of the Dos de Mayo neighborhood. Both technical reports and zoning maps had identified the neighborhood as inhabitable. After talks about the Yellow Line started, however, the municipality suddenly decided that the neighborhood was at risk and needed to be evicted. The municipality, then, actively created the physical space needed for the project to go through. In doing so, it needed to dismantle existing planning decisions. Second, it is not the result of an urban or transportation plan for the city. In fact, the current plan at the time of approval mandated a transit line to go through that corridor. And the construction of the Yellow Line has actually prevented or at least made it more expensive to implement other public works contained in the plan, such as bridges over the river it runs parallel to. Again, the decision to build the Yellow Line required dismantling existing planning decisions. And third, in the relationship between the local government, private firms and consultants. As shown above, the assessments were done in a way that incentivized the evaluators to provide a report that is biased in favor of the project. Otherwise, they would not receive a large proportion of their potential payment.

A way of understanding these issues is as flaws in the system. The PPP scheme should work in one way, but it does not because it has flaws that limit competition, reduce the probability of achieving value for money, and keep risks on the state. However, when these issues keep happening, and when timid attempts at reform are dismantled after a short time, we should ask a different question. The issue here is why a scheme that apparently works so poorly is being expanded and converted into the only way a local government can deliver major works of infrastructure.

According to PPP experts, budgetary constraints should not be a reason to decide whether to do a PPP (Engel, Fischer, and Galetovic 2014). Acerete, Shaoul, and Stafford 2009, for instance, argue that deciding on PPPs based on budget limitations can lead to bad planning decisions. In Lima, however, budget limitations have been the main reason for choosing to deliver large infrastructure projects using public-private partnerships. At first, PPPs allowed mayor Castañeda to move from localized interventions to a large-scale limited access road. The following administration, despite initially having a discourse that prioritized regulatory reforms and planning, rapidly recognized that private finance could allow it to fulfill expectations about infrastructure delivery. The main explanation lies in one factor: the ability to use PPPs as a way to overcome financial limitations. Bringing private investment allowed the municipality to use future revenue streams in the present for a project in a way it could not have done with public debt. The need to attract money also created the need to produce the conditions for private firms to intervene. The lack of funds also explains, at least partially, the decision to hire consultants on success fees: it is the only way that the municipality could legally outsource the cost of assessments.

Admittedly, this is routinely recognized by reform-minded experts and politicians as an issue that should be tackled. However, no significant reform has been carried out in order to allow the municipal government to compete in financial capacity with large corporations. If private finance can bring to the present revenue streams that the municipality cannot, it will not be easy to prevent the use of PPPs to bypass budgetary constraints. No reform has been carried out either to improve its technical capacity so that it does not need to outsource the evaluation studies, let alone the planning ones.

One way to overcome disadvantages on the side of the state is to build its learning capacity (cf. Schon 1973). If the private sector's advantage is that it has certain capacities that the state does not, either in doing feasibility studies or in operating infrastructure, that

advantage could theoretically be overcome if the state learns-by-doing those capacities. In fact, when all of its toll road network was privatized, Lima's toll road company (EMAPE, or Municipal Company for Toll Management) had been operating them for decades. The municipality is in the process of losing that knowledge both at the administration and at the street level, as toll collectors now work for the concessionaires.¹⁹⁷ When the time comes for concessioned roads to be transferred back, it will be at a disadvantage again. When I asked Segura whether there had been any push for the state to learn certain capabilities, his answer was that there had been none because 'the architecture of the state is not pro-public enterprise.' This is a euphemism for a state that is biased against building state capacity. It is not that a pro-public enterprise bias would be needed. Reducing the pro-private sector bias would suffice. It was due to that bias, after all, that knowledge was lost. During a public forum at Congress in 2017, I asked Adolfo Pulgar, the representative from the Ministry of Finance, the same question. He said that they did not consider learning to be important, and given that they do not have the capabilities, it is necessary for the private sector to work together with the state.

This leads to a crucial actor in the networks of power and knowledge operating in the production of PPPs in Lima: consulting firms. The main one is Apoyo Consultoría, which provided external consulting services to the Municipality of Lima for the Yellow Line project.¹⁹⁸ Between 2012 and 2015 Apoyo worked for at least 36 entities, between private firms and public agencies, working on unsolicited proposals and other private-sector-led infrastructure projects. In 2014 alone, it advised private clients proposing a total of 19 unsolicited proposals. At the same time, Apoyo Consultoría has advised state entities. In 2012, it wrote the Concerted Development Plan for Ichuña, a municipality in the south of the

¹⁹⁷ EMAPE provided well paying jobs that have been replaced with poorly paid ones. In 2014, EMAPE toll booth workers earned monthly salaries between PEN 2406 and 4435.74. Job postings for the toll booth collectors that replaced them quote monthly salaries of PEN 750-1000, slightly above minimum wage.

¹⁹⁸ Council minutes. Acta 05-2018. (1/13/2018)..

country. Between 2012 and 2014, it advised the Ministry of Finance on diverse issues: Apoyo evaluated 1,300 public investment projects for the Ministry of Finance, provided advice on a program to modernize municipalities, and evaluated 36 budgetary programs.¹⁹⁹ Among Apoyo Consultoría's over 700 clients listed in their website are: Graña y Montero, Routes of Lima, the Metropolitan Municipality of Lima, the National Agency for the Promotion of Private Investment (Proinversión), urban developers including Viva GyM, local and regional governments, ministries, the Automobile Association of Peru, and other infrastructure concessionaires and builders.²⁰⁰ It also lists DEE Consultores, a consulting firm in which former municipal officials Miguel Prialé and Gustavo Guerra-García are partners.²⁰¹ DEE Consultores, in turn, lists Graña y Montero as one of its clients. It also lists several ministries, including the Ministry of Transport.²⁰²

There is no need for plain corruption to take place to understand the importance of the role played by consulting firms. These actors profit on the expansion and reproduction of the PPP program by working at the same time for firms proposing the projects and government entities in charge of approving them. There is no need for them to work for both state and private sector in the same project in order to gain from a biased, pro-PPP perspective. In a forum organized by the Pontifical Catholic University of Peru in November 2017, one of the panelists was José Luis Escaffi, leading adviser at Apoyo Consultoría for the design and submitting of unsolicited proposals and for government agencies that evaluate public investment projects. Unsurprisingly, his presentation was uncritical about the use of PPPs in the country. He went as far as using his platform to argue that the Office of the Comptroller should not be involved in supervising contracts because it 'does not offer solutions.' Escaffi

¹⁹⁹ <https://www.apoyoconsultoria.com/es/nosotros/> (accessed 9/19/2018)

²⁰⁰ <https://www.apoyoconsultoria.com/es/clientes/> (accessed 9/19/2018)

²⁰¹ http://deconsultores.pe/equipo_mprialé.html and deconsultores.pe/equipo_gguerra.html (accessed 9/19/2018)

²⁰² <http://deconsultores.pe/clientes.html> (accessed 9/19/2018)

said that PPPs are good in general, but depend on a strong state, which he understands as one that offers legal security, and on the existence of competition. However, he overlooked the fact that most unsolicited proposals, including some Apoyo worked on, were approved without competition. Instead, he mentioned one of the very few cases of unsolicited proposals that were approved after a competitive process: a water treatment plant. Former minister of Finance Alonso Segura was also a panelist at the forum and offered a more critical account of the use PPPs in Peru: in contrast with Escaffi, he conceded that, under certain circumstances, some PPPs might not work as intended. He also delineated the reforms he pushed while he worked at the government, including those that promoted competition. Escaffi readily replied by criticizing Segura's reforms arguing that they were based on zero evidence. It does not take much to imagine the role that such an influential person as Escaffi might have had in overturning the reforms right after the new national government took power in 2016.

The role played by the Villarán administration, in turn, highlights how private corporations have shaped the field in which PPPs operate. In a short period of time, her administration realized two things. First, that they needed to deliver large infrastructure works both in spite of their discourse before taking power and because of it. While she talked about prioritizing other issues over simply building infrastructure, her administration also wanted to go against the image the press had built about them: radical leftists that did not 'believe in' private investment. And second, they realized that they could not deliver large infrastructure works without using PPPs. Because ideologically they were more favorable to planning, they sought to give some order to potential investments. But with a political crisis and impeachment looming, they also sped up projects. In practice, planning was tailored to the need of investors, both by creating project shortlists and by including a large list of highway projects in the metropolitan plan.

Furthermore, when Villarán took power in 2011, the municipality had already signed a contract with OAS. Gustavo Guerra-García, who was very close to Susana Villarán and participated in writing her government plan as a candidate, was surprised when he was not appointed as municipal manager. He suspects that his previous critiques of deals between the Peruvian state and Brazilian corporations might have played a part. Municipal manager Miguel Prialé, in turn, was upset that the municipality ‘lacked muscle’ to promote competition for projects before they entered the three-month-window bidding phase. In late 2011, he went on roadshows abroad, but none of them were successful in attracting other bids. By then, the ‘builders club’ was already operating in the country. Furthermore, while Prialé was trying to attract interest from other investors, Odebrecht ‘made his life impossible’ in the words of Gustavo Guerra García.

Two years later, Odebrecht made a donation of USD 3 million to Villarán’s campaign against the recall. This was not because the Brazilian conglomerate had a preference for Villarán. In fact, during the corruption trial, an informant from the company declared that Odebrecht had paid at least USD 8.4 million to five presidential candidates since 2006.²⁰³ According to Juan Pari, a former Congressman who participated in the Lava Jato commission in Congress, the campaign contributions to various candidates were not simply a strategy to diversify risk. It was about capturing the whole political system, including those that are in power and those that are not.²⁰⁴ In fact, the Brazilian conglomerate not only went beyond politicians in power, but beyond politicians.

Odebrecht has indirect agency through public opinion leaders and journalists. For instance, in 2014 Odebrecht sponsored the annual journalism prize given by the Institute Press and Society (IPYS), an international journalism organization based in Lima. One of the

²⁰³ <https://larepublica.pe/politica/1204652-barata-revela-aportes-de-odebrecht-a-keiko-ag-y-ppk> (accessed 9/19/2018)

²⁰⁴ <https://elcomercio.pe/politica/juan-pari-afirma-odebrecht-busco-capturar-sistema-politico-noticia-474400> (accessed 9/19/2018)

most prominent investigative journalists in the country, Gustavo Gorriti, denounced this and decided his organization, IDL-Reporteros, which is funded with external aid money, would not participate due to the obvious conflicts of interest. Most journalists, however, were happy to receive the prize. After corruption allegations came to light, the agreement between Odebrecht and IPYS was rescinded. But Odebrecht had more direct ways of influencing journalism. Besides sponsoring prizes, it hired prominent journalists for a diversity of roles. For instance, it hired Raúl Vargas, the main anchor at RPP, which is the main radio network in the country, to write ‘Perú-Brasil: con sabor a futuro,’ a commemorative book on Peruvian and Brazilian food. He was also hired as a jury member for a prize Odebrecht sponsored in 2009.²⁰⁵ Odebrecht also hired Pedro Tenorio, who worked as public relations manager during 2014 for a road project done by Odebrecht in Callao while he was news anchor at national TV network Latina. Tenorio was also part of the prize committee at IPYS.²⁰⁶

The role played by corporations that participate in these PPPs, then, is not that of a simple economic agent bringing efficiency to service delivery. These corporations, as the case of Odebrecht clearly shows, have the power to influence a diversity of state and non-state actors that play a role in the process (F. Durand 2018). The press pushed narratives that depicted Villarán and her team as an ‘anti-private investment left’, a rhetoric that was effective in pressuring her administration to speed up the adjudication of PPPs. Deals involving these corporations are often presented in celebratory terms both by politicians and the press. There is little scrutiny unless an obvious scandal appears. But often the most problematic issues with PPPs are not in the occasional scandal, but in the more quotidian dealings (cf. Bowman et al. 2015).

²⁰⁵ Hildebrandt en sus trece. (1/27/2017).

²⁰⁶ <http://www.premiosnacionales.ipys.org/pages/comite-de-premios> accessed (3/13/2018).

The issue here is not why the PPP scheme is not working as intended or as mandated by economic theory. My question is why the PPP model is being expanded despite its obvious problems and without much impetus for reform. The question, of course, is who benefits. As we have seen, there are powerful private corporations that can benefit from the mechanism. The lack of competition and their ties to decision-makers in the state allows them not only to win contracts, but to inflate profits through the undervaluation of the public infrastructure that is being transferred to them. Financiers also benefit, as PPPs grant them long-term secure returns on investment.²⁰⁷

However, we should look beyond private beneficiaries of PPPs. Bowman et al. argue that, in the United Kingdom, a major reason for expanding PPPs is that it allows politicians to shift blame. This is especially true for types of services that tend to be contentious, such as the outsourcing of the treatment of asylum seekers in the UK and other ‘toxic policy areas.’ They call this ‘designed fiascos’: decision-makers know that the application of a policy will be highly contentious, so they prefer to shift blame to the private operator, shielding the state from responsibility (Bowman et al. 2015, 32–33).

Outsourcing tolls allows the municipal government to rise their cost without being directly responsible for the increase. In October 2013, the Yellow Line concessionaire raised 33% the tolls in Evitamiento highway for private cars (from PEN 3.00 to 4.00), 20% for public transit (from PEN 2.50 to 3.00), and 50% for freight (from PEN 2.00 to 3.00 per axis). Public officials explained that the rise was justified because the transfer of the toll from public to private hands meant that a consumption tax now needed to be applied (the consumption tax in Peru is 18%). The former mayor, who signed the original contract that allowed the concessionaire to increase the price of tolls, blamed the administration then in charge. In fact, the original contract allowed the concessionaire to start collecting tolls in

²⁰⁷ Pension funds have been particularly active in promoting and investing in PPPs.

October 2013, regardless of whether the highway was finished or not. The initial price according to the contract was PEN 3.00 (around USD 1.00) plus tax.²⁰⁸ By October 2018, tolls had been raised to PEN 5.70 for cars and buses and PEN 5.70 per axis for freight.²⁰⁹

Former Finance Minister Alonso Segura has been critical of the way contracts were negotiated.²¹⁰ But he also views the capacity to shift blame away from the state as an advantage. In an interview in January 2017, he told me that a positive thing about PPPs is that it eliminates ‘perverse incentives’ that prevent public officials from making difficult decisions

AS: And there is a political incentive too. Because if the productivity factor indicates that you should raise the electric rates and there is a regulated concessionaire and the regulator is independent of the national government, well, it is attached to the Cabinet, but it is independent from the executive power, it can justify a 3% increase in the electric rates. So there is a raise. If it is a public sector enterprise, you will see the discussion with the Minister of Energy, the president, we cannot raise the rates, we have an election next year, maybe after that, you figure out where you get the money from. I mean, there are in the public logic a lot of perverse incentives to do not want to take difficult decisions. The service being in private hands help you get those decisions made.²¹¹

In this view, accountability for unpopular decisions is a perverse incentive. For him, those decisions should be left to technical knowledge that is produced by an entity that is independent from the democratic process. One of his main concerns with the PPPs approved by the municipality of Lima is that no independent body supervised them.²¹²

But the reduction in accountability is not limited to the operation phase. Another trait of the PPP scheme also contributes to shielding important political decisions from public scrutiny. When an unsolicited proposal is submitted, only a very general outline of it, often

²⁰⁸ Yellow Line contract, art. 8.7 and 9.7.

²⁰⁹ <https://elcomercio.pe/lima/transporte/via-evitamiento-linea-amarilla-lamsac-sube-s-5-70-tarifa-peaje-noticia-566659> (accessed 10/23/2018)

²¹⁰ <https://andina.pe/agencia/noticia-alza-peajes-se-debe-a-contrato-mal-disenado-e-ilegal-afirma-alonso-segura-728856.aspx> (accessed 10/23/2018)

²¹¹ Interview #28, with Alonso Segura (1/25/2018).

²¹² <https://andina.pe/agencia/noticia-alza-peajes-se-debe-a-contrato-mal-disenado-e-ilegal-afirma-alonso-segura-728856.aspx> (accessed 10/23/2018)

one or two pages long, is public. This outline contains vague descriptions of the objectives and the area where the project will be built. Key details such as costs, the price of tolls, displacements, and other issues that might be controversial, are kept secret. The justification for this is that, because that information is produced by the proposing firm, it is private property.²¹³ In case another firm wants to get hold of that information, it must commit to pay for it in case it ends up winning the contract. The larger public is excluded from it, and can only know about the project from whatever public officials and the firm decide to share. Only after the contract is signed we learn about some details. And even then, some information included in the studies that justify the project, such as demand studies and specific building costs, are still kept secret.

The strategy works at various levels. The national state sets the conditions, while the direct participants act at the local level. But shielding controversial decisions from the democratic process is not the only reason politicians have to outsource services. Particularly in the case of Lima, with its limited budget for infrastructure investments, PPPs allow the local government to raise funds that would not be available otherwise. As a council member said in his speech justifying the Yellow Line, PPPs ‘fall from the sky’ with readily available liquidity. Those funds, of course, are not free. In two of the three highway projects, the new road was bundled with existing profitable public toll roads. Thus, there was a massive transfer of future revenue streams brought by roads built with public funds. By privatizing those future revenue streams the municipality could bring them to the present. In their need to show that they were doing infrastructure investments, local governments have been willing to compromise long-term municipal budgets. The third highway project included a different way of compromising future budgets. The municipality, as I showed above, guaranteed minimum revenues in a way the will likely require subsidies.

²¹³ This secrecy is common for PPPs. See Siemiatycki 2007.

To be able to bring those future revenue streams into the present, projects must be profitable. But when judging profitability, existing revenue streams are considered regular revenues rather than a transfer of public resources. It is not their profitability, then, that makes them viable, but their capacity to fulfill legal requirements that allow them to be presented as ‘self-financed.’ Neither the transfer of existing toll revenues nor the minimum revenue guarantees compromise their legal status as ‘self-financed’ PPPs.²¹⁴

In fact, the bundling of new roads with existing public ones appears to be a necessary condition for the viability of the projects. The only two projects actually being built in Lima are those that included the transfer of existing tolls to the private concessionaire. A third project, the Southern Expressway, which includes minimum revenue guarantees, is fully approved but stalled. Other two projects that do not include either have been approved by the municipality but have not gone further: an underground highway in Javier Prado was rejected by the ministry of Finance because it was deemed financially unsustainable due to excessive toll prices; and a tunnel to connect La Molina to Angamos Avenue is stalled because of disagreements in the contract writing phase, which also included a concern about excessive toll fares. By the time these projects were being negotiated, national laws had already been changed in order to mandate the local government to get the Ministry of Finance approval. One of the requirements of this entity was to not include minimum revenue guarantees for the Javier Prado project. With no remaining revenue streams to transfer and without the option of hiding minimum revenue guarantees, no other highway projects have been approved by the Municipality of Lima.

In the end, this way of capitalizing existing public assets is consistent with a strategy of economic development that is premised on attracting private investment. If during the first

²¹⁴ As shown above, to be considered ‘self-financed’, the likelihood of the guarantee being activated must be very low. In the case of the Southern Expressway, however, as I have shown it is likely that the guarantees will be activated.

phase of neoliberalism in Peru, during the 1990s, privatization was a key way of attracting private investment in order to promote economic growth,²¹⁵ now PPPs play a central role in that. Transferring public assets, like highways, into private hands, is a way to capitalize them and to promote investment in the present.

This is not simply because of flaws in how the concession system is working. Rather, it is the result of how the model is designed: the government sets the conditions for the private sector to find pseudo-profitable projects, and transfers the responsibility of producing the studies that justify them to the private sector. This means the projects prioritize financial criteria from the outset, and socially relevant goals are included by government request only if they do not challenge their financial feasibility.

²¹⁵ I elaborate on this issue in chapter 2.

Chapter 4: Techno-Politics of Automobility

4.1. Intro

In the previous chapter I showed how political economic conditions influenced the decision to invest billions of dollars in new urban highways. The link between source of funding and outcome, however, is not completely straightforward. The path decision makers followed, even when shaped by budgetary constraints and the power of private capital, was still contentious. In this chapter, I show that solutions to transportation woes in Lima have moved along two axes. The first one is technological, and is based on the claim that the solutions lay on adding capacity via technological improvements such as traffic management through better traffic light systems, better road design, or additional road capacity. The second one is regulatory, and rests on the premise that the main necessity is to regulate the chaotic traditional transit system. While both sides have a degree of truth, they neglect a third issue: the politics of urban space. Solutions in Lima are too often based on technocratic premises that leave out the key issue of who is being served by them and who has the right to

urban space. In technocratic and decision-making circles, there is very little discussion about this.

In practice, the assumptions held by these actors reveal a policy commitment to automobility, which was key for highway construction to be prioritized. This pledge was useful both as a way of justifying the policy decision of expanding road capacity for cars and as a way of legitimizing those decisions ex-post. This commitment has been influenced by two factors. The first one is the process of urban and economic restructuring that came along with the introduction of liberal economic policies and an export-oriented national development strategy in the 1990s, which set the ground for implementing infrastructure policies that look to connect local nodes with global networks. Specifically, the transformations in urban form and the rise of car use that came along with those changes became justifications for providing infrastructure that allowed car users to bypass certain areas of the city while rapidly connecting wealthy areas. The other factor is a system of knowledge that promotes automobility, which has made it palatable to direct most available public funds from the local government towards investments that favor a minority of the population. While it is not uncommon for cities in the Global South in which the majority use transit to invest vast amounts of funds towards highways that improve the mobility of a small share of its population, it is key that we understand the specific ways in which those investments are justified or rationalized. The fact that it is common does not mean that it is not contentious. In particular, the way in which the problems of Lima have been conceptualized by decision makers, experts, and agenda setters is a central issue. How these actors abstracted the problems of Lima and turned the city into an object to be intervened and developed paved the way for making it acceptable to bring future public revenues into the present in order to facilitate automobility. More specifically, the characterization of congestion as a main problem and of the lack of road capacity as one of its main sources,

along with the characterization of Lima as a low-density city, served as justifications for investing in increasing capacity for cars.

4.2. Urban restructuring and city competitiveness

During the second half of the twentieth century, a center-periphery segregation pattern developed in Lima. The middle- and upper-class lived in the central and south-central areas of the city, while working-class Limeños either lived in working-class neighborhoods near downtown or in the peripheries. In the 1970s, prompted by the construction of road infrastructure that facilitated longer commutes, the spatial organization of the city changed. Jobs and major urban services shifted south, towards San Isidro and Miraflores, along the newly built Vía Expresa del Paseo de la República.²¹⁶ Wealthy Limeños, in turn, began moving east, along the newly built Javier Prado and Primavera roads. In a more limited scale, some services also relocated to consolidated districts in the peripheries (Chion 2002).

Still, by the 1990s, most jobs were located in the central and south central areas, especially in the axis between downtown and San Isidro (see **Figure 12**). According to a 1995 report done by the Metropolitan Planning Institute, most of the trips made in the city had their origin in the peripheries and their destination in the central area, including San Isidro (Joseph A. et al. 2008, 378). In 1996, 17% of jobs were located in downtown and 9% in San Isidro (Chion 2002). Wealth, in turn, is concentrated along the downtown-San Isidro-Miraflores corridor and into its south-eastern and south-western extensions, and is projected along some arterials that penetrate the peripheries (see **Figure 13**). With a few exceptions, the farther you go from that polygon and from those arterials, the less wealth you find, especially when climbing up the hills that surround the city. Also, with some exceptions, the farther you go, the fewer private automobiles you find.

²¹⁶ The history of transportation planning in Lima is developed in chapter 2.

While the center-periphery segregation pattern, albeit with some exceptions, has largely remained, liberal policies starting in the 1990s have brought changes to the experience of moving in Lima. The 1992 Metropolitan Plan proposed the deconcentration of some key economic activities in order to decongest downtown (Municipalidad de Lima Metropolitana 1992, 91, see **Figure 14**). In the following years, the area of San Isidro near the Vía Expresa highway was consolidated as the financial district.²¹⁷ The process of deindustrialization and the rise of the service sector further consolidated San Isidro as the second most important employment center (Olarte and Segura 2012, 39–42). Jobs shifted south, which in turn shortened the distance between the financial district and the wealthy south-eastern part of the city. Car-owning middle- and upper-class Limeños moved further east. The population of the middle- and upper-class eastern suburb of La Molina grew from 15,000 in 1981 to 79,000 in 1993, and then to 132,000 in 2007.²¹⁸ The population of the south-central districts of San Isidro and Miraflores, in contrast, shrank in the same period. San Isidro saw its population reduced from 73,000 to 64,000 and then to 58,000. If until the 1980s car-owning Limeños moved on a south-north axis, beginning in that decade the travel pattern of this population became more complex. La Molina was built as a low-density, single-family home, car-oriented suburb. Several of its streets do not even have sidewalks, which is very rare for places in Lima that have basic infrastructure. In 1993, 56.3% of its households had at least one car, compared to 16.6% in Lima.²¹⁹

A further change in urban travel patterns in Lima beginning in the 1990s was brought by the rapid increase in car ownership. During the late 1980s, car ownership levels in the country had stagnated, likely because of a combination of high import tariffs and economic

²¹⁷ The first major bank to move its headquarters from downtown to San Isidro had been Banco Continental, in 1983. Today, all major private banks had their headquarters in San Isidro.

²¹⁸ INEI (National Institute for Statistics and Information). Data available at <http://proyectos.inei.gob.pe/web/biblioineipub/bancopub/Est/LIb0002/cap0103.htm> (accessed 8/24/2018).

²¹⁹ INEI, 1993 census.

crisis. In the 1990s, people started buying cars again after the economy was liberalized and GDP growth recovered. The process kept going in the 2000s. Between 2005 and 2012, the number of cars in Lima jumped from 900,000 to 1'400,000. By 2017, the proportion of households with at least one car in Lima had jumped to 22.9%.²²⁰ Again, economic liberalization coupled and economic growth have influenced this change. Between 2002 and 2013, GDP growth averaged 6.15%.²²¹ Commercial agreements with the United States (2009), China (2010) and the European Union (2013) have lowered or eliminated tariffs for imported cars. Between 2004 and 2012, the proportion of trips in Lima done by car jumped from 11.2% to 15.2% (MTC-JICA 2013, 21).

Liberal policies also affected collective mobility. As shown in chapter 2, between 1991 and 1992 the national government liberalized the public transit sector. Thousands of vans flooded the streets of Lima, considerably increasing the then limited public transit supply, while also aggravating chaos through competition on the road for passengers: drivers' salaries depend upon the number of passengers they could take. The scenario has been described as the 'war of the penny' (Bielich 2009). But the move towards urban neoliberalism went beyond the national government. The Metropolitan Plan had already presented signs of this shift. According to the plan,

The decadent restrictive and controlist conceptualization must be eradicated and replaced by a view that promotes or gives incentives to private initiatives. This qualitative change is meant to cancel the repressive notion of land use regulation and zoning as a controlist instrument of urban growth and urbanization (Municipalidad de Lima Metropolitana 1992, 142).

In contrast to the 'controlist' view of zoning, the plan proposed 'to promote zoning as a tool to promote and negotiate the occupation, use and rent [extraction] of land in a way that incentivizes private investment, both from corporate and non-corporate agents, in the real

²²⁰ INEI, 2017 census.

²²¹ <https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?end=2013&locations=PE&start=2002> (accessed 8/22/18).

estate market' (Municipalidad de Lima Metropolitana 1992, 62). This shift is best identified in changes in the way a particular zoning tool was used. In 1969, following the legitimation of informal settlements as a valid form of urbanization, the zoning category Special Regulatory Zone (SRZ) was created in an effort to regularize them. That year's zoning code designated SRZ as 'a zone that, because it has particular urban characteristics, must have regulatory dispositions that allow it to be treated through specific programs of urban renewal or rehabilitation' (Perú 1969).

Two decades later, the use of the tool was no longer restricted to the improvement of irregular settlements. The 1992 Metropolitan Plan proposed to use special regulatory zoning for specific projects including the shoreline, called Costa Verde. The plan sought to 'consolidate recreational, touristic and cultural activities' in this area (Municipalidad de Lima Metropolitana 1992, 95). Consequently, the Costa Verde was categorized as a special regulatory zone. In some parts of it, a cliff divides the urban area from the coast. But the rezoning included parts of the upper side of the cliff: parks along it were also zoned SRZ as if they were part of the shore. This paved the way for the privatization of a public park in the wealthy district of Miraflores. In what once was Parque Salazar, a luxury mall was built. It surely complied with the plan's purpose of turning the area into a touristic center, as Larcomar, as the mall is called, is one of Lima's tourist hubs. A five star Marriott hotel opened just across the street, and almost a million tourists visit the mall every year.²²² It is just not on the shore, but 100 meters above it. Larcomar became an example of how zoning could be used now for promoting rather than restricting or regulating private investment (Stiglich 2012).

²²² <https://gestion.pe/economia/empresas/lima-recibiria-cuatro-millones-turistas-ano-2015-11343> (accessed 8/23/18).

It is also a reflection of how liberal policies could have an impact at the local level. In the early 1990s, Miraflores, once the symbol of bourgeois and middle- and upper-class Lima, was in decay. Between 1989 and 1992, Maoist insurgent group Shining Path targeted it and other districts that concentrated commercial and financial services with bombings as a way of demonstrating the progress of its ‘popular war’ (Comisión de la Verdad y Reconciliación (Perú) 2003, IV:460). Between 1981 and 1993, the population of Miraflores decreased from 109,000 to 88,000, a 19% drop. In the late 1990s, Larcomar became a symbol of Miraflores’ revival after the defeat of Shining Path. It also consolidated Miraflores as a touristic hub for both foreign tourists and daily visitors from other parts of Lima, in contrast with the provincial aura it held as a traditional, middle- and upper-class *barrio* (Bensús 2012, 92–93).

Changes in urban governance also paved the way for the Yellow Line, which as I mentioned in the previous chapter is the first privately-financed urban highway in Lima. Parts of the MIRR had been zoned as SRZ-urban renewal for physical safety in 2004. But that was not enough for the Yellow Line, as areas that were deemed safe would have needed to be evicted. The council, however, was ready to intervene that area as well. Then, while in wealthy Miraflores SRZ was used to build a mall on public land, the Yellow Line went through neighborhoods that came closer to the areas originally identified as special regulatory zones. The objectives of those that used the tool, however, had changed dramatically.

The Yellow Line project was presented by the municipal government as a way to relieve congestion in Vía de Evitamiento and to allow for new road links within the city. It connects the eastern part of Lima and downtown with Callao, the city where the port and the airport are located. Mayor Luis Castañeda, however, insisted that the project should not be seen only from an urban perspective, but from one that sees ‘a country, a city, looking for

exports.²²³ Lima had been increasingly connected to global networks in the previous two decades. Moreover, these networks have contributed to the formation of productive, commercial and financial nodes in the province of Lima (Chion 2002). The spatial decentralization promoted by the 1992 Master Plan helped create new spaces for capitalist activity, undermining the economic importance of the Historic Center and pressing for improvements in the infrastructure needed to connect Lima to these networks. There are plans to expand both the sea port and the airport, which are also projected to be connected to the new urban rail system. The Yellow Line fits within this logic of improving connectivity to global networks, as it will reduce travel times for cars and freight to the airport and port. It is unsurprising that the reduction in travel times to the airport from La Molina, the wealthy suburb that grew while these metropolitan changes were occurring, has been highlighted in the press as a major benefit of the toll road.²²⁴

²²³ Interview in Canal N, November 2009. Available on <https://www.youtube.com/watch?v=vKxdeMUcD4g>, https://www.youtube.com/watch?v=H_6GnC_SMBI (accessed 8/23/18).

²²⁴ <https://andina.pe/agencia/noticia-linea-amarilla-viajes-entre-molina-y-callao-se-haran-30-minutos-712686.aspx> (accessed 8/23/18).

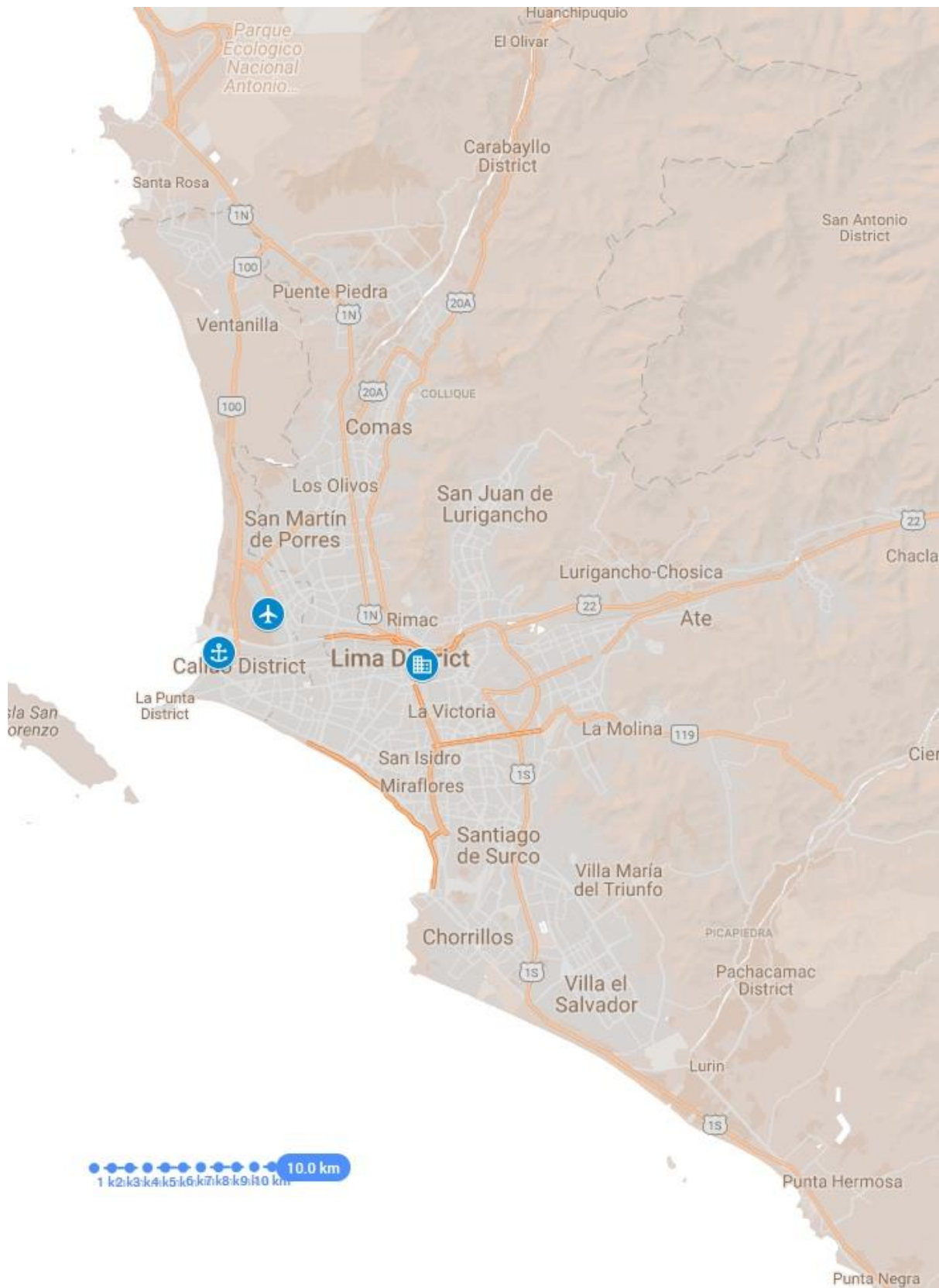


Figure 12. Map of Lima: Port, Airport, Downtown (Historic Center).

**ESTRATIFICACIÓN A NIVEL DE MANZANA
POR INGRESO PER CÁPITA DEL HOGAR, 2013**

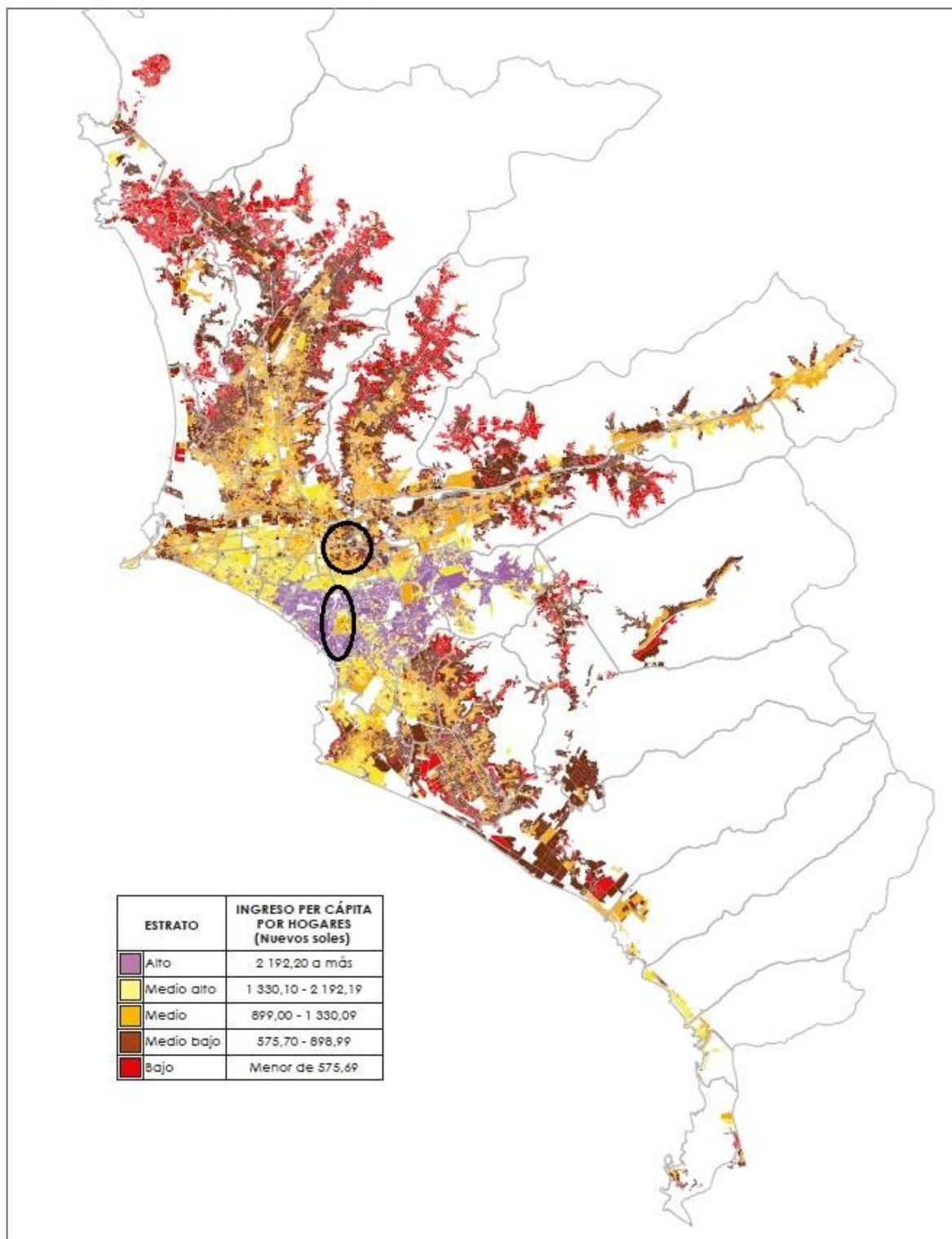


Figure 13. Lima by income brackets at the block level (2013). The two highlighted areas have the highest concentration of jobs. Circle: downtown and Gamarra commercial center. Oval: San Isidro financial district and Miraflores commercial and touristic center. Source: INEI.

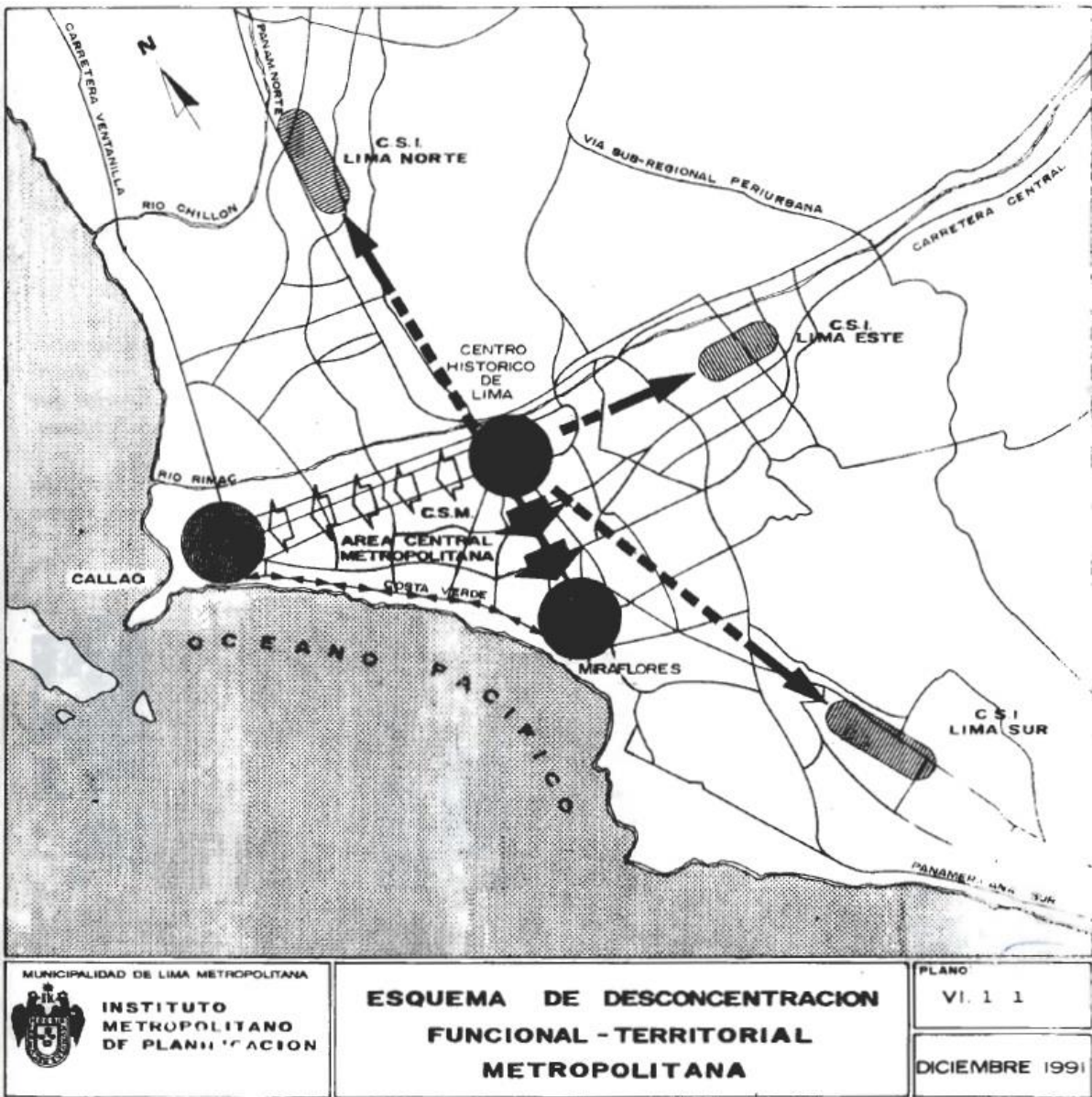


Figure 14. Proposal for deconcentrating activities. 1992 Metropolitan Plan, p. 91.

4.3. Congestion as *the* problem of Lima

In 2013, Discovery Channel dedicated an episode of its show ‘Don’t drive here’ to Lima. The documentary depicts traffic in Lima as chaotic and lawless.²²⁵ It was widely shared in social networks and picked up by the Peruvian press, which produced their own reports on the documentary (Fernández-Maldonado 2013). In fact, for people living in Lima, congestion is increasingly a matter of daily chat, a usual excuse for being late, and a routine source of stress. It is common for Limeños to complain about *el tráfico*. In polls commissioned by the urban observatory Lima Cómo Vamos in 2010 and 2011, 61% and 55% of respondents mentioned vehicular congestion as one of the two environmental problems that needed the most urgent action by the authorities. According to the same source, between 2010 and 2017 there have been consistently more respondents saying that their travel time to work or school has increased in the last year than those saying that it has decreased.²²⁶ In polls conducted by pollster CPI in 2013 and 2014, 27% and 31% responded that either vehicular congestion or disorderly traffic was the most urgent problem in Lima, second only to crime (43% and 57%). A study done in 2017 by Universidad del Pacífico (UP) and marketing firm Marketwin reported that 76% of Limeños responded in a poll that traffic caused them a high level of stress (55% ‘mucho’, ‘too much’; 21% ‘bastante’, ‘a fair amount of’). 45% of respondents said that they spent 2 hours or more per day moving. According to the Andean Development Corporation, in 2016 car and motorcycle drivers took an average 23 minutes while transit riders an average 43 minutes to get to work in 2016 (Daude et al. 2017, 140).

²²⁵ Available at https://www.youtube.com/watch?v=TBb_J2jPlbU (accessed 8/22/18).

²²⁶ The average difference between the percentage of people that said that their trip is longer and the percentage that said that it is shorter is 21 percentage points for the 2010-2017 period. The two years with by far the shortest difference (2011: 3.2% and 2012: 4.1%) correspond to the years when the BRT line opened and when its number of passengers grew considerably.

While it is clear that congestion and high travel times to work are perceived as a major issue by the public, there is limited non-self-reported data on actual *change* in travel times. The only source that has reported on that change is the Japanese International Cooperation Agency (JICA) in reports commissioned by the Peruvian Ministry of Transport. According to those studies, average travel times jumped from 31.4 to 37 minutes between 2004 and 2012. Trips done by bus went from 44.7 to 47.2, while trips done by car went from 24.9 to 31.6.²²⁷

In 2017, the Peruvian Society of Urbanists (Sociedad de Urbanistas del Perú, SURP) estimated the annual cost of congestion and its externalities to be USD 6bn (Reyes 2016). Six years earlier, SURP had estimated that Lima lost USD 13bn per year because of the problems caused by lack of planning. Those costs were attributed to lost opportunities for private investment in housing and infrastructure, loss of jobs, rent captures due to monopoly power, among a diversity of very specific issues. When newspaper of record *El Comercio* published a story on the report, however, congestion became the sole cause: *Every Limeño loses USD 1,600 every year because of traffic.*²²⁸ Other organizations have provided estimates on the social cost of congestion. Consulting firm Luz Ámbar estimated the annual cost of congestion at USD 1bn in 2010 when considering loss of manpower, excessive gas consumption, environmental impacts, and loss of business opportunities, among other issues.²²⁹ The Automobile Association of Peru, a car dealer's guild, had a much higher estimate. In 2014 it reported that the cost of excessive gas consumption due to the combination of congestion and the use of non-efficient vehicles in Lima was USD 4.45bn, or the price of one billion gallons

²²⁷ MTC-JICA, cited in an GPIP internal report. JICA is the Japanese International Cooperation Agency. While perceptions might confirm these trends, it should be noted that JICA is interested in promoting Japan's automotive industry. Peru imports over 5,000 Japanese cars per year. See <https://www.camaralima.org.pe/english/news/new/importaciones-vehiculares-cayeron-11-en-primer-semester/614> (accessed 10/26/2018).

²²⁸ <http://archivo.elcomercio.pe/sociedad/lima/cada-limeno-pierde-mas-us-1600-al-ano-culpa-trafico-noticia-1329725> (link is broken). 1,600 is 13bn divided by the population of Lima.

²²⁹ <https://archivo.gestion.pe/noticia/469755/cada-ano-se-pierde-lima-mas-us-1000-mlls-caos-vehicular> (accessed 8/23/18).

of gasoline.²³⁰ All of these measures are, in a way, arbitrary. In fact, they neglect the dynamic effects of and on congestion: high levels of congestion can push people to look for alternative ways of moving (Herce 2009, 166). For instance, 7.4% of respondents in the UP-Marketwin report mentioned above said that in order to contribute to reducing Lima's traffic problems they had moved closer to their job or school. In any case, congestion reports point to the same issue: it is perceived among experts, business groups and the public as a major problem in Lima.

Just as important as the framing of congestion as a major problem is the framing of its causes. Peter D. Norton has shown that the transformation of streets in the United States to prioritize automobile travel over all other uses was based on the reframing of the sources of congestion and the blame for accidents (Norton 2011). Norton explains that in the 1920s, the positive regulation approach that sought an efficient use of existing road space was replaced by one that sought to expand the space dedicated to auto travel. By mobilizing the idea that the issue was a lack of 'floor space,' automotive interests transformed who the streets were supposed to serve (Norton 2011, 153–71). The debate was based on a binary: is congestion caused by too many cars or by too little road capacity? In a way, the question is simply the two sides of the same coin. But clearly each side of the coin has fundamentally different policy implications.

The two sides shown by Norton are represented in traffic talk in Lima but in a more complex way. For instance, several stories published in the press were focused on two issues: the chaotic nature of the atomized transit system (which would roughly fall on the 'too many vehicles' side), and road closures and redesigns (which would fall on the 'too little floor space' side). In 2009, the leader of consulting firm/NGO Luz Ámbar suggested limiting the

²³⁰ <http://rpp.pe/economia/economia/aap-se-derrocha-s-13-mil-millones-al-ano-por-trafico-en-lima-noticia-741257> (accessed 8/23/2018).

number of combis [vans] that can circulate in off-peak hours as a way of easing congestion.²³¹ In 2010, *El Comercio* published a story on traffic congestion in downtown. The focus is on specific changes in road design that had aggravated car access into the area. Those changes included the recently opened Bus Rapid Transit line: ‘...the implementation of the exclusive lane for the Metropolitano in Lampa Street reduced the lanes in that road from four to two, something that has turned its intersection with Roosevelt Avenue into hell. Another insufferable bottleneck in peak hours.’²³² The tone of the story contrasts with a brief highlight by urban mobility scholar Juan Carlos Dextre, who explains that when the BRT becomes part of an integrated network the problem will be overcome, and that restricting car use in the area could reduce congestion. In 2014, the same newspaper published a shortlist of what it purported to be the main causes of congestion. The story was titled *What is vehicular congestion attributed to?* with the subhead ‘Vehicular traffic in peak hours is concentrated in 75 critical points. Taxis, combis and freight vehicles in focus.’²³³ The first reason mentioned by *El Comercio* was the state of the public transit system, which allegedly saturated the roads. Other factors mentioned were freight vehicles running during the day, construction works that affect road capacity, on-street parking, and traffic backups caused by taxis stopping anywhere to negotiate fares with riders.²³⁴

The auto industry has also been vocal in the framing of congestion and its causes. In 2008, consulting firm Proexpansión produced a report commissioned by Cruzada Vial, an NGO funded by automobile importers along with the insurance industry, a consortium that operates highways, and other private sector entities. The report was called *Antidotes to congestion and to the lack of traffic safety* (Proexpansión 2008). It seeks to counter views

²³¹ <https://andina.pe/agencia/noticia-plantean-reducir-circulacion-combis-lima-entre-las-1000-y-1600-horas-215203.aspx> (accessed 8/23/18).

²³² <http://archivo.elcomercio.pe/sociedad/lima/caos-vehicular-infarto-diario-corazon-lima-noticia-623290> (link is broken).

²³³ <https://elcomercio.pe/lima/atribuye-congestion-vehicular-345742> (accessed 8/24/2018).

²³⁴ Taxis in Lima do not have a meter, and fares are negotiated before the ride.

claiming that behavioral aspects were at the center of traffic problems in the city. Its main take is that the problem lies in the design of the transportation system, both in its infrastructural and regulatory aspects. These flaws produce ten bottlenecks, which the report unpacks one by one. Neither the rise in car ownership nor the number of cars are mentioned as one of the sources of congestion. Instead, they point to the excess in the number of vehicles that provide transit services: the first bottleneck is the 'Excess in (public transit) units and the absence of a mechanism that allows the exit of vehicles in bad condition.' The report elaborates on this point in five pages and six subsections. One of those subsections calls for the need to subsidize vehicle turnover: it calls for the government to comply with a recently approved law according to which the state would pay USD 2,000 to owners of old cars if they want to buy a new one.

The report does briefly mention the lack of incentives to reduce the number of vehicles on the road. But it is limited to one subsection in one page that calls for promoting car sharing or restricting cars during peak hours. In contrast, the bottleneck that identifies a mismatch between space dedicated to traffic and the number of vehicles is much more elaborated. The report carefully continues attributing this mismatch to the number of transit units rather than cars, but still calls for the expansion of road capacity, especially in peripheral areas that have admittedly worse road infrastructure and have a higher ratio of transit units to private cars than central areas. In comparing these two sections we see the two perspectives Norton talks about, and the intention of framing the lack of 'floor space' rather than the high number of private automobiles as the culprit. The main issues the report points to are the stricter regulation of public transit, fixes in road design and signal flaws, and some infrastructure investments. In summary, there is too much space used by transit and too little space available for all the vehicles.

In December 2014, newspaper *La República* blamed a sudden rise in congestion to the simultaneous construction of several road projects that required temporary road closures.²³⁵ The story mentions the state of existing road infrastructure and the rise in the number of vehicles: ‘road infrastructure is increasingly deficient and the increase in vehicles does not stop.’ There is no direct reference, however, to the rise in private car use, just to vehicles in general. In fact, transportation expert Miguel Sidia claims in the report that there is a ‘deficit’ in private automobiles when comparing Lima to other Latin American capital cities. Furthermore, according to Sidia, ‘the fleet of taxis and public transit vehicles is very high and we are expecting 200,000 vehicles more per year. The issue is that we have a lot of disorder and no traffic management.’ He recommended the expansion of the mass transit system. Sidia is not alone in highlighting that the number of cars per person in Lima is lower than in other big Latin American cities. According to NGO Cruzada Vial congestion in Lima has little to do with the number of cars on the road. Cruzada Vial claims that congestion can be explained mostly by bad road design. In a video published in 2016, they show a specific highway ramp that does not comply with national road design laws and explain how its design contributes to congestion. The video is posted on Facebook with the following caption:

In Cruzada Vial we have always said that, despite popular belief, there IS NO excess of automobiles in Lima and, to the contrary, for its area and population, Lima has a relatively low motorization rate.
So, why is there so much congestion?
The reason is not the users’ ‘lack of road culture’. The main cause of congestion is bad road design everywhere in the city that, instead of speeding traffic flow, hinders it.²³⁶

In fact, non-compliant road design is common in Lima. I interviewed a Peruvian traffic engineer that is based in the United States but has worked as an external consultant for

²³⁵ <https://larepublica.pe/sociedad/839284-traffic-en-varios-puntos-de-lima-es-un-caos-por-demoras-en-obras-viales> (accessed 10/26/2018).

²³⁶ <https://www.facebook.com/CruzadaVial/videos/948537318584796/> caps in the original (accessed 8/23/18).

Cruzada Vial. According to him, Lima's congestion problem is not related to the number of cars or physical capacity, but to failures in road design. He often uses his own channels of communication such as social networks and the platform Cruzada Vial gives him to pinpoint specific design flaws in existing and projected roads, including sections of the three privately-financed highway projects that I am concerned with.

In 2013, newspaper *Perú21* published a story that did highlight the rise in car use as a major cause of congestion. The story picks up a poll made by Arellano Marketing, which asks respondents about the major cause of congestion in Lima. Excessive vehicle fleet came first with 32%: 'The economic boom our country is enjoying in the last years does not only bring huge benefits. It also comes with some difficulties that are originated in the low capacity of local authorities. That is the case of the alarming lack of planning in the face of the rise in the number of vehicles, which already outflows the capital city's road infrastructure.' This story, however, is an exception, and one that is based on a poll rather than the opinion of experts or auto interests. The poll done in 2017 by Marketwin and Universidad del Pacífico also found that most respondents believe 'vehicle saturation' to be one of the major problems regarding traffic in Lima (60.9%, highest answer). None of the newspapers that picked up the story, however, reported on that answer, and rather focused in other aspects contained in the poll, such as stress caused by traffic and time lost due to congestion.

Another factor that has an effect in congestion is topography. For instance, Carlos Chacón, an architect and planner who was in charge of the mobility section of the PLAM, pointed out in an interview that a major issue regarding transportation in Lima is the lack of bridges along the Rímac River, which tends to congest the few existing ones. In fact, new bridges across the river have been planned for a long time. He compared the river to a 'scar'

in the city.²³⁷ He bemoaned that the Yellow Line would become a wall that will prevent or make it more expensive to build those road links. He also mentioned that, while he was in the municipal government, he unsuccessfully tried to at least adapt the design of the Yellow Line to reduce its future impact on the issue. A further ‘scar’ is the Vía Expresa del Paseo de la República, which has only 14 vehicle crossings along its 9 km. In other areas of the city, hills also contribute to congestion. Towards the north and the east, Lima is roughly shaped like a star or an octopus, with hills sitting between its populated tentacles.²³⁸ To go from one ‘tentacle’ to the other requires one to go close to the center and back again. This dynamic contributes to the creation of bottlenecks even in areas where car use is relatively low, such as the entrance to San Juan de Lurigancho.²³⁹ A similar effect is caused by the hill that divides the car-oriented suburb La Molina and the rest of the city. A highway project that will include a tunnel below that hill has been approved and adjudicated in 2016 but the contract is still being negotiated. The narrow valley that connects Lima with the central highlands is the site of the permanently congested Central Highway. The New Roads of Lima project includes the expansion of a highway that runs parallel to it, Ramiro Prialé.

In the 2010 municipal election, the relationship between congestion and transit was part of the agenda. Candidate Susana Villarán framed transit woes as part of one of her three main axes. For her, the issues that needed urgent solution in Lima could be summarized in three issues: security, order and cleanliness. By order she meant offering solutions to the transportation chaos produced mainly by the transit system. When talking about transport in Lima as chaotic or disorderly, she was not alone in referring specifically to transit. In an interview with cable news channel *Canal N* in 2009, she said that

We need an orderly city: 27 thousand accidents per year in Lima in public transit, we think accidents in transit can be reduced to zero. It is authority, it is regulation, it is

²³⁷ Interview with Carlos Chacón (7/14/2017).

²³⁸ The lower hillsides are populated, but in most of Lima the top of the hills is uninhabited.

²³⁹ As part of the Yellow Line renegotiation, a viaduct that would expand capacity to the entrance into San Juan de Lurigancho was included. It was scrapped after Castañeda returned to power.

that they go on their lanes, one behind another, and not like now that we go in vans, I ride vans, competing with each other for passengers, and that is when accidents happen. We need a safe and faster transport. And we are planning an integrated rapid transport system for Lima, to regulate all.²⁴⁰

In Lima there are separate public transit systems. The BRT and the Metro together carry less than 10% of all the trips made in the city. In comparison, about 60% of the trips are made by the rest of the public transit service. This service is provided by individual drivers that usually partner with or hire a fare collector ('cobrador') (Bielich 2009). They rent a vehicle paying a daily fee, and pay another fee to the transportation company that owns the license for the route. Often, these companies own just the route and no vehicles. Only in very few cases the service is integrated in a sole company with drivers as employees. As a result, there is competition on the road for passengers. It is common for drivers to wait in a corner for the bus or van to fill up, or to compete with other drivers for who reaches the next corner first so they can get more passengers in. The system they work in, then, provides incentives for drivers to disrespect basic traffic rules and to drive recklessly. Thus Villarán's call for order.

The transformation of this system was one of Susana Villarán's main objectives. As mayor, she started a communications campaign called 'Everyone for order' ('Todos por el orden') to gain support for the reform. As part of the campaign, the municipality released videos explaining the problems in Lima's transportation system. According to one of the videos,

The problem is the [transit] system. It works like this: too many bus companies work too many routes that travel all over the city. But these companies do not operate as such. The company that owns the concession normally does not own buses. So it gives the route to someone with a bus, regardless of size, age or condition. These owners do not provide the service either, but rent their buses to drivers who operate the route. The driver, besides trying to earn a living, has to hire a fare collector and pay a daily fee to the owner. The result: accidents, unsatisfied passengers, drivers

²⁴⁰ Susana Villarán interviewed on Canal N, October 2009. Available at <https://www.youtube.com/watch?v=ydr3ppw8ryE> and <https://www.youtube.com/watch?v=GGI25YRuHo8> (accessed 6/4/2019).

without labor rights, ignored students,²⁴¹ air pollution, chaos. Without a good mass transit service, there is a rapid rise in the use of informal taxis that lower their fares along with their quality and safety. Everyone wants to drive, the city is filled with cars, roads are saturated.²⁴²

There is no doubt that the problem identified in the video and in Villarán's campaign exists. Competition for passengers on the road has led to bad service and reckless driving, which causes problems for people both taking and not taking transit, as well as transit workers. Furthermore, bad service pushes people with the financial means to exit the system and mostly use cars or taxis. In fact, the campaign acknowledged the rise in car use, and bad transit service as a cause. However, by focusing solely on transit and on the rise of car use only as a consequence of bad transit service, the Villarán administration neglected the increase in car use as a direct cause for traffic woes in the city.

In an interview with Gustavo Guerra-García, one of the key transportation advisors and head of the municipal agency overlooking the transportation reform, he told me that

I believe there is a maturation as a society. We have realized that Lima has a lot fewer cars than Santiago, a lot more roads, and more chaos due to disorder. We do not give order to transportation and we do not manage traffic. So actually from a planning point of view it is much better to, first, solve traffic management and order so you can see where congestion is in areas that are not arterial roads. Because what you will require might be minor interventions, you know? Of problems that are not too many cars and too little capacity, but other problems. That an intersection is unsafe, that traffic lights are not synchronized.²⁴³

Here, Guerra García appeals, perhaps unconsciously, to incremental planning and the rational model. According to his view, minor interventions will provide us information about

²⁴¹ Students have a legal right to a reduced fare. But, because companies are not compensated by the lost revenue, they sometimes do not stop for them on peak hours and often charge them a higher fare than legally allowed.

²⁴² Video available at <https://www.youtube.com/watch?v=8iZ93IU36Ks> (accessed 8/23/2018).

²⁴³ Interview #19, with Gustavo Guerra García (5/22/2017).

what to intervene next. Improvements can be done in a piecemeal approach and following the collection of enough information. It is a perspective that depoliticizes space and infrastructure by abstracting practice from the political context in which it is applied. It is all about knowledge and expertise, not politics. Ironically, this depoliticized perspective contrasts with how the municipal agency he was in charge of, Protransporte, approached the implementation of the first bus corridor of the transportation reform.

Avenida Arequipa is an arterial road that connects downtown Lima with Miraflores. It is part of a wider corridor that includes two other parallel arterials only one block away at either side, Avenida Petit Thouars and Avenida Arenales, the latter of which is discontinued in parts of San Isidro. Until 2014, all three roads had mixed traffic: both private automobiles and transit used the three roads with no exclusive lanes. In January of that year, the municipality of Lima announced that, as part of the transportation reform, they were carrying out studies to segregate traffic: Arequipa would be used exclusively by the first route of the transportation reform, called ‘Blue Corridor,’ with minor arrangements to let people drive into their garages. The other two roads would be given exclusively to automobiles. The studies would be finished by July 2015.²⁴⁴

A few days after the announcement, the municipality of San Isidro protested against the possibility of converting Avenida Arequipa into a bus-exclusive corridor. According to a press release by the San Isidro council, doing that would push cars into nearby roads that ‘are not designed to withhold heavy traffic,’ which would ‘increase vehicular chaos.’²⁴⁵ The deputy mayor, who lived in an area surrounding a historically preserved park, claimed that the rerouting would put the park in danger. 73% of households in San Isidro own a car, compared to a citywide average of 23%, while 37% of trips that originate in the district are

²⁴⁴ <https://larepublica.pe/sociedad/766423-vias-de-san-isidro-colapsarian-si-solo-transitaran-vehiculos-publicos-en-la-av-arequipa> (accessed 9/3/2018).

²⁴⁵ <https://publimetro.pe/actualidad/noticia-av-arequipa-solo-transporte-publico-19726> (accessed 9/3/2018).

done by car and 17% by taxi. Right after the announcement, Guerra García met with the mayor of San Isidro to inform him about the proposal and discuss it.²⁴⁶ In May 21st, the municipality of San Isidro organized a town hall meeting to gather input from neighbors and get a non-binding vote over the possibility of excluding cars from Av. Arequipa.²⁴⁷ The municipality of Lima, however, did not wait until the town hall to make a decision. A few weeks earlier, it informed that they had decided against ‘compulsively’ excluding cars from Av. Arequipa. Instead, by improving the synchronization of traffic lights in the two parallel roads, they expected cars to use them instead. Clearly, the municipality expected those two roads to be faster than Arequipa, or cars would not stop using the latter. The town hall still went on, and Guerra García used his presentation to talk about the benefits of the transportation reform. In the end, the vote went massively against excluding cars from Av. Arequipa.²⁴⁸ In July 2014, the new bus route started operations in mixed traffic. All other routes were removed from Petit Thouars and Arenales, which would now be used exclusively by cars. Rather than technical knowledge, then, it was political opposition by a powerful group, wealthy San Isidro residents, what influenced the municipality of Lima’s decision to track back on a proposal to prioritize transit over cars.

Rather than redesigning Arequipa, the change was regulatory: existing bus routes were excluded in order to let the new corridor absorb all demand. Furthermore, transit inspectors were appointed to guarantee that the bus stops are free of traffic, especially from informal taxis and *colectivos*, which are automobiles providing collective taxi service with semi-fixed routes. During Villarán’s tenure, the system worked as it was proposed: speeds increased, albeit not at the rate a segregated corridor would have delivered. However, after

²⁴⁶ <https://gestion.pe/peru/politica/protransporte-evaluara-mixto-corredor-vial-avenida-arequipa-2185?ref=gesr> (accessed 9/3/2018).

²⁴⁷ <https://rpp.pe/lima/actualidad/san-isidro-convocan-cabildo-para-decidir-sobre-corredor-vial-arequipa-noticia-693615> (accessed 9/3/2018).

²⁴⁸ Interview #30 with a sustainable mobility activist who attended the town hall (9/3/2018).

Villarán's government ended, the incoming mayor reduced the number of inspectors and the subsequent rise in the number of colectivos dramatically worsened the corridor's performance.

The fact that the municipality of Lima gave up in the face of opposition from San Isidro residents speaks volumes about the class differences in Lima regarding transportation policy. The Villarán administration interpreted the opposition from a powerful minority as something that could affect their already deteriorated image. But it also speaks about what the Villarán administration considered fundamental and what it considered to be open to question. Rather than the rational model Guerra García appeals to in his quote, in this case we saw power defining knowledge: after vocal opposition from powerful residents, it suddenly became technically better not to convert Avenida Arequipa into a bus-only corridor, even before traffic studies were finished.

Guerra García's quote above summarizes most of the talk of traffic in the media and among experts and politicians, which focuses on two design issues: the institutional design that (loosely) regulates the transit system, and the road design that does not allow existing infrastructure to fulfill its capacity. The latter is often joined by calls to expand that infrastructure. We see both sides of Norton's framing of the issue of congestion: a regulatory approach to the problem of excess vehicles and an infrastructure building approach to the problem of too little road space. But the too many vehicles side is often reserved to the transit system. The rise of car ownership and car use itself is seldom mentioned and often dismissed.

Among experts and politicians in Lima, then, it is commonly argued that public transit is a major contributor to congestion in the city. As I showed above, they often name it before the number of private automobiles as a cause for congestion. By convention, traffic engineers assign a magnitude to different types of vehicles: private cars are the standard (one passenger car unit, *pcu*), while a truck is assigned around 2 *pcu*, and a bus nearly 3 *pcu* (Bull and

Thomson 2002, 112). Nevertheless, this is congestion per vehicle, not per person. How much each person contributes to congestion is quite a different issue and depends on travel mode. If a bus carries nine people, each of them is contributing a third of a pcu ($3/9$). If somebody is driving their car alone, on the other hand, they would be contributing three times that. In this example, then, car drivers congest more than bus passengers. According to an abstraction made by traffic engineers, under typical conditions, transit users contribute far less to congestion than car drivers. A caveat is that conditions in Lima are not necessarily typical. For transit users to contribute more than a person driving alone, buses must carry less than 4.5 passengers on average. As Thomson and Bull point out, this happened in Lima, albeit in off-peak hours, in the late 1990s. After the liberalization of transit mentioned in a previous section, the number of vehicles providing transit services quadrupled between 1991 and 1995. Since 1997, however, another shifts in regulation led to the consolidation of transit services in fewer vehicles, and the number fell 36% and stabilized in the next years. Whereas in 1997 there were 39,000 vehicles providing the service, in 2011 there were only 25,000. In 2012, the daily number of trips by bus or van was 10.7 million (PLAM 2035 2014, 455). Some experts still consider that transit is oversupplied in Lima. However, even if the same service could potentially be provided by fewer, larger buses, current transit providers carry considerably more than 4.5 people on average, especially at times where roads are congested. At peak hours, it is common to see buses of all sizes completely full. In any case, the stabilization of the number of transit vehicles is the key factor. If the number of vehicles providing transit has remained stable, transit cannot account for the *rise* in congestion.

Instead, the number of private automobiles has risen rapidly over the last two decades. Between 2002 and 2012, the motorization rate in Lima (vehicles per 1000 people) rose from 103 to 141, a 37% increase.²⁴⁹ Between 1993 and 2017, the number of households in Lima

²⁴⁹ Proinversión, quoted in a GPIIP internal report.

that own at least a car jumped from 207,000 to 539,000. So why are cars largely overlooked as a cause for the rise in congestion? Part of the answer is that the automobile industry has made efforts to blame congestion on other factors. Along with that, the symbolic power of the automobile should not be overlooked. The rise in car use is often cited as a demonstration of the country's social and economic progress. Another part of the explanation might be practical. Experts and practitioners might think that, given the conditions they operate in and the limited power they have, they will not be able to slow or stop the rise in car use. In other words, they take the (growing) number of car drivers as a given because they assume they cannot change it. Furthermore, as the Avenida Arequipa episode shows, wealthy motorized residents are ready to protest against policies that limit where their cars can go, and officials are ready to concede to those protests.

In summary, the rhetoric around traffic problems in Lima is presented in two non-exclusive sides. On the one hand, congestion is attributed to the transit system. It is said that the chaotic nature of the transit system contributes to congestion through reckless driving and an oversupply of transit units, especially in central areas. Given that transit routes are allocated in a roughly market basis and no transfers are available, most routes follow two rules: they are long and they go through downtown, so as they can capture the greater number of passengers. Surely, this system contributes more to congestion than a carefully planned network with larger buses and transfers would. But the average transit user would still contribute less to congestion than the average driver. On the other hand, congestion woes are attributed to the lack of sufficient road space, especially in the face of growing automobile use. Stories about specific road closures and their effects on short term congestion follow this line. According to the discourse, congestion problems and their solutions are regulatory and technological. The regulatory issues are regarding the transit system, and the technological issues refer to increasing road capacity via widening or traffic management technologies.

Largely absent is the political issue of who roads are designed for and who takes more space in them.

4.4. Lima as a flat city

In an interview she gave to cable news network *Canal N* in 2010, candidate Susana Villarán said that Lima is ‘an extended city, so it needs taxis and jitneys.’²⁵⁰ She probably did not mention cars because the ‘extended city’ she is referring to is the peripheries, where most people cannot afford one. Taxis in Lima are unusually cheap, so people that do not have the means to own a car can commute at times by taxi.²⁵¹ She is not alone in conceptualizing Lima as an ‘extended,’ ‘flat,’ or otherwise low-density city. Gustavo Guerra García told me in an interview that Lima is a ‘flattened, low-density city.’

Similarly, according to a report from the Agency for the Promotion of Private Investment (GPIP) internal report, despite increasing its density since 1993, in 2007 ‘density in the Lima metropolitan area remains low; this is a consequence of a horizontal growth pattern that urbanizes the city consuming a lot of urban land and does not promote urban concentration and vertical growth, resulting in a low density pattern.’²⁵²

Furthermore, the head of the 2014 Metropolitan Plan for Urban Development in Lima and Callao (PLAM), José García Calderón, said in 2014 that

There is a false perception about Lima becoming a dense city. It is true that in some districts there is a lot of construction going on, and density is increasing. However, this phenomenon corresponds to just a third of the city, while two thirds are still very low density. In other words, there are very few people using a lot of land surface, which has become a scarce resource.²⁵³

²⁵⁰ Available at <https://www.youtube.com/watch?v=4GTjYFnJoa4> (accessed 8/23/2018).

²⁵¹ A 30-minute or 5-10 km trip is around USD\$5, which, depending on distance to work, can make it less expensive to commute by taxi every day than to own a car.

²⁵² GPIP internal report.

²⁵³ <http://andina.pe/agencia/noticia.aspx?id=495614> (accessed 8/23/2018).

The third of the city García Calderón is referring to is the middle- and upper-class south-central area of Lima. In the last ten to fifteen years, hundreds of mid-rises have been built, increasing density in this area. The other two thirds by García Calderón's account are the peripheries, where middle- and working-class Limeños live. In fact, according to GPIIP's report, northern Lima is the densest area of the city. The denser areas of Lima, then, are not where six or eight story buildings are located. Instead, old middle- and working-class districts near the center are the densest (Breña, La Victoria, Surquillo). They are followed by newer low-income areas that consolidated first, such as parts of San Martín de Porres, San Juan de Miraflores and Comas, which are denser than wealthy central areas like Miraflores and San Isidro despite having buildings that are lower in height. A few factors explain this difference. Consolidated low income areas have multifamily three- or four-story homes. The area occupied per person in these homes is usually smaller than in buildings in wealthy San Isidro or Miraflores. In some areas of Miraflores, for instance, zoning requires one-bedroom apartments to be at least 110 square meters large, and two-bedroom apartments to be at least 180 square meters. If buildings are high enough, we might be seeing a convergence in density between areas with apartment buildings and consolidated low-income areas. But in any case, the biased perception is the one that assumes that density is necessarily linked to high-rise apartment buildings. In fact, high densities in Latin American cities are often explained by the large proportion of people living in dense informal settlements. (Daude et al. 2017, 56).

Still, a city can only be high or low density in relative terms. In fact, Lima is hardly a low density city by Latin American standards. According to the Andean Development Corporation (CAF in Spanish), in 2015 Lima had 12,211 people per square kilometer, so it was denser than New York City (10,430). Among the nine most populated cities in Latin America, Lima ranked fourth, after Rio de Janeiro (13,507), Caracas (13,855) and Bogotá (19,333), and far from both the fifth city, Sao Paulo (9,477), and from the average of the

twenty nine cities selected in the study (9,314) (Daude et al. 2017, 159). We could also extend the comparison by including other regions. If we compare Lima to the average density of large cities in North America it would be very dense, while comparing it to large cities in Europe would put it slightly above average, and comparing it to cities in Asia puts it as a very low density city.

After analyzing 8,600 municipalities in four countries, researchers at the Inter-American Development Bank have estimated that, for Latin American cities, the closest to an optimum density for savings in urban services in Latin American cities is around 9,000 people per square kilometer (Duren, Ruth, and Guerrero Compeán 2015). Higher densities can lead to congestion but, at a certain level and given effective planning policies, it can bring savings in services such as electricity, water and sewage, and transportation. It is generally easier to plan mass transit corridors in a city that is dense (but not too dense), than in a low density area.

But my point is not to establish whether Lima is a dense city or not, since, as I mentioned above, that can only be said in relative terms. What is important is that leading experts and politicians abstracted Lima as a low density city, and proposed interventions with that premise in mind. Intervening a city assuming that its density is low can work in two very different ways. For instance, García Calderón and the Lima PLAM called for the development of a compact city model based on densifying strategically selected areas of the metropolis. Those areas would be transit corridors as well as new centralities outside downtown. Their proposal was to intervene in the allegedly low-density city by densifying it. But the PLAM has not been implemented, and the impact of characterizing Lima as a low density city likely had a different effect.

In some cases, it is not easy to know if we are seeing a conceptualization that paves the way for a policy decision, or an ex post rationalization of a decision already taken. As I

showed in chapter 3, the Villarán administration did not initially have in mind to prioritize the construction of large infrastructure works. But when her government realized that the use of public-private partnerships allowed it to direct a large amount of resources to these works without compromising its limited capital budget, it turned to promoting PPPs that were mostly focused on urban highway building.

In an interview at cable TV news network Canal N, Gustavo Guerra García's responded the following to a question about whether the BRT system would be completed if Villarán took office:

Lima has grown like an oil spill, a flattened city, it does not have tall buildings anywhere in the city. This completely flattened city with hundreds of roads east and west does not need one route alone to solve a tiny bit of traffic. What it requires is to solve regulation for all of the routes.²⁵⁴

For Gustavo Guerra García, then, the fact that Lima was a 'flat' city meant that large investments in mass transit corridors were at best of secondary importance compared to regulatory changes to the transit system. When I interviewed him, he told me that

If you look at global demand standards to build metro lines, you get 40 thousand passengers per hour each way as a minimum. In Peru, there is no route carrying more than 25 thousand passengers per hour each way, and very few have a consistent level of demand along its whole trunk line. So for me it is not clear that in a flattened city, with very few dense areas, there is space to build metro lines other than where the Metropolitano is.²⁵⁵

Surely, it would be impossible for existing infrastructure to carry urban rail-levels of passenger traffic over a single corridor, but building a metro line has the potential to consolidate existing flows, just like the PLAM proposed. In this quote, in contrast, Guerra García takes city form and flows as a given, and assumes that transportation investments must work over that fixed scenario. He neglects the effect that building transportation

²⁵⁴ Gustavo Guerra García interviewed on Canal N, August 2010. Available at <https://www.youtube.com/watch?v=4-VLHZYs4bQ> (accessed 6/4/2019).

²⁵⁵ Interview #19, with Gustavo Guerra García (5/22/2017).

infrastructure, be it mass transit corridors or highways, can have on travel demands. As we will see in the next section, these conceptualizations have an effect on the actions of decision-makers.

4.5. Automobility

When an individual drives a car to get to her job, she depends upon a large number of actors to complete the journey. The car itself has been manufactured by other humans using materials found in nature and transformed into a machine. The person delegates the ability to move to the car, even when its operation depends on her. Moreover, the car must be powered by gasoline, which is also a natural resource refined to fuel movement. But the assemblage hardly ends there. Automobility is also built upon patterns of urbanization and infrastructural technologies on which it depends. The physical form of the city is also tied to, and often produced by, automobility. Prevalent modes of transport influence concentrated or dispersed ways of urbanization (Isard 1942). In particular, the automobile has often contributed to spatial decentralization and low-density development (Baum-Snow 2007), which in turns make vast numbers of people dependent on the car for moving around metropolitan areas. When this happens, the car-oriented infrastructure and automobility itself become parts of a city's metabolism (Baccini 1997). Thus, material aspects are key to understanding automobility's stability.

Another group of key actors supporting the assemblage of automobility is composed by those who benefit economically from it. The oil as well as the car manufacturing industry are the most obvious actors here. But highway construction companies and financial companies are in some countries at least as important as these. As I showed above, NGOs funded by the car and highway construction industry and a consulting firm linked to them have furthered the view that the increase in the number of cars on the road should be

dismissed as a leading cause of congestion in Lima. Wells, Nieuwenhuis, and Orsato (2012) focus on the economic foundations of what they call the 'regime' of automobility. In particular, they argue that the automotive industry is powerful enough and has too much to lose to allow a change of regime to happen. They show ways in which this industry has been able to either eliminate or 'subsume' alternatives to the regime, as well as how other actors, such as governments, have supported it. Thus, added to the cultural assumptions of free movement and the need to move around car-oriented metropolitan areas, there is a political economic structure supporting automobility. Car industry-funded NGOs and the reports they produce are an example of this subsumption.

The way problems related to traffic and transport in Lima and Peru as a whole tells us a story about cultural and, especially, class differences. Norton has shown how, in the 1920s United States, the blame for road accidents shifted from drivers to walkers as a consequence of, among other things, the effort of car sellers and car associations to reshape the discourse. The early twentieth century transformation of urban streets into traffic corridors was not limited to cities in the United States and has remained as such in cities all over the world. In Peru, there are rules telling pedestrians where they can and cannot walk. In 2009, the press ran a series of stories highlighting the responsibility of pedestrians in causing traffic accidents. In August, *El Comercio* published a story titled *Pedestrians are also to blame for accidents* that included a photograph of a person crossing a highway. The author tells a story about a pedestrian that recklessly crosses an arterial road, and that this action 'is a faithful reflection of the reckless idiosyncrasy of the Limeño and, generally, the Peruvian pedestrian.' Pedestrians, we are told, are the second most important cause for fatal accidents. The head of the Police Department for Prevention and Inquiry of Traffic Accidents adds that 'It is common to blame drivers for accidents, but often the pedestrian is culpable for the fatality.'

There is no road culture in Peru. It is a topic in which parents should be an example and that should be taught as a course in schools, since pre-school.²⁵⁶

While newspapers played their part in framing the issue as one of bad behavior by pedestrians, the national government proposed a law that would allow the police to fine them for not following traffic rules. In the debate that took place in Congress in June 2010, arguments in favor of the law emphasized the need to educate pedestrians. According to the view of some congress people, pedestrians did not know that they were behaving dangerously, so they needed to be taught—by being punished. For instance, congresswoman Lourdes Alcorta argued in favor of fining pedestrians

...in a country such as ours, so informal, so inclined to disobey the laws, so improvised, I do believe that we need to begin inducing certain behavior; because pedestrians are to blame for a large percentage of traffic accidents, they cross the streets wherever, they pass through cars without following traffic lights and without using overpasses (...) we need to induce the population, just like everywhere in the world, to know how to cross the street (...) we need to induce pedestrians, we need to teach them²⁵⁷

Other congress people followed suit, some of them arguing in favor of an educational campaign in order for pedestrians to actually know the rules. Only one congressman argued against the law because he claimed that it would put blame on the weakest users of the road. In the end, the law was approved with 71 votes in favor and none against.

In July 2010, another story in *El Comercio* was titled *Pedestrians are to blame for 40% of deadly traffic accidents*. The story regrets that there is no effective way of punishing pedestrians for this.²⁵⁸ The law's rulebook, which includes specific mandates on how to apply the law, had not been approved yet. During the same month, newspaper *Perú21* published a story titled *Pedestrians: victims and culprits*. The article opens with the mother of a 30-year

²⁵⁶ <http://archivo.elcomercio.pe/sociedad/lima/peatones-tambien-son-culpables-accidentes-noticia-326727> (link is broken).

²⁵⁷ Congress register of debates. June 22nd 2010, evening session.

²⁵⁸ http://archivo.elcomercio.pe/sociedad/lima/peatones-son-culpables-40-accidentes-transito-fatales_1-noticia-595780 (link is broken).

old woman recently killed along with a friend after being ran over by a car driver: ‘My daughter was reckless because if she had used the pedestrian overpass, she would not have died. We must be more careful and avoid being exposed to danger. She might have done it to save time. She had had some drinks.’ The reporter adds, ‘if they had only walked 15 meters towards the nearest pedestrian overpass, nothing of this would have happened.’ She also adds that 74% of victims in traffic incidents are pedestrians, a high proportion compared to other Latin American cities according to the reporter. Luis Quispe Candia, head of consulting firm Luz Ámbar, is quoted on his reasons for this: people are irresponsible, do not follow traffic rules, constantly defy authority, and believe they are capable of defying danger. The reporter gives another number: 19% of pedestrians killed in traffic incidents were crossing the street recklessly. The irony that likely 81% of pedestrians killed were following traffic rules was lost on the reporter. No questions are asked about what caused *those* deaths, or whether punishing pedestrians for not following the rules would be effective in a city where 4 out of each 5 pedestrians killed were doing nothing wrong. The focus of the story is not on that, but on the recklessness with which pedestrians supposedly behave most of the time.²⁵⁹

In November, with the rulebook already approved, police finally began fining pedestrians in Lima. *El Comercio* ran several stories celebrating the first wave of fines and blaming pedestrians: two of them were titled *Pedestrians say they run red lights ‘because there are no cars and I see no policemen’*,²⁶⁰ and *There have been more than 2,500 fined pedestrians and excuses continue*.²⁶¹

But who really causes traffic collisions in Lima? The answer really depends on how we frame the answer. In physical terms, it is impossible for the blame for a deadly collision to

²⁵⁹ <http://archivo.peru21.pe/noticia/507383/peatones-victimas-culpables> (accessed 8/24/2018).

²⁶⁰ <http://archivo.elcomercio.pe/sociedad/lima/peatones-aseguran-que-cruzan-semaforo-rojoporque-no-hay-carros-no-veo-policias-noticia-670488> (link is broken)

²⁶¹ <http://archivo.elcomercio.pe/sociedad/lima/ya-van-mil-500-peatones-multados-excusas-siguen-noticia-671016> (link is broken)

fall on a pedestrian rather than a person operating the vehicle that, because of its mass and speed, is capable of killing someone. But because rules have been set regulating the use of urban space by people inside and outside those vehicles, responsibilities are officially allocated according to those rules. We should not confound, them, legal responsibilities with causes of a collision. However, even by those standards, in 2008 car drivers were responsible for 75% of accidents and pedestrians for only 14% (Ministry of Health 2008). In fact, it seems to be not fair at all to blame pedestrians for a single collision if we look at what happens when they do follow the rules. According to police statistics, in 2008, 464 pedestrians were ran over by vehicles. Less than half of them, 177, were reported to be either drunk or jaywalking. In other words, more pedestrians are ran over while they are following the rules than while they are not. That this might explain their decision to look whether there are cars (and, now, policemen) rather than following rules that do not protect them is often completely overlooked in the discourse of the press and politicians supporting the fines. They could not see the behavior of a jaywalker being anything other than irrational. Rather than trying to reach their destination quickly or safely, their behavior against the rules had to have something to do with their 'idiosyncrasy', which made them act recklessly. The solution must be then to educate and to punish them.

This bias is also reflected in road safety campaigns. For instance, media campaigns done by the Ministry of Transport (Ministerio de Transportes y Comunicaciones, MTC) puts drivers and pedestrians on the same level of responsibility. A 2013 TV spot by MTC tells pedestrians that 'using crosswalks saves lives.' A spot published the previous year tells them to 'change their attitude', to become responsible for their own actions, and to use crosswalks and overpasses. Their 2011 radio campaign impersonates a pedestrian overpass, who asks pedestrians: 'What am I for? a) To decorate the street b) For you to cross the road safely'.²⁶²

²⁶² <http://www.mtc.gob.pe/cnsv/2011.html> (accessed 3/7/2019).

These campaigns often depict pedestrians as irresponsible and reckless and claim that if they follow the rules then their safety is guaranteed, despite evidence to the contrary (see **Figure 15**).

Not only the government is doing road safety campaigns. Lamsac, the Yellow Line concessionaire, organized in 2017 the art contest ‘Put your school in route.’ According to Lamsac’s Communications and Sustainability Manager, Luis Zapata Palacios, the objective was to ‘generate consciousness about the importance of prevention and safety in the roads.’²⁶³ He added that for his company it was important to teach people how to behave appropriately in the roads they operate. 1,700 children from five public schools located in working-class neighborhoods participated in the contest.²⁶⁴ Paintings were meant ‘to call the attention about the right way of using crosswalks, the usefulness of pedestrian overpasses, and respecting traffic police.’²⁶⁵ The campaign is mostly focused on teaching children how to behave as pedestrians, and included the participation of traffic police, who explained children that pedestrians were responsible for a high amount of traffic collisions.²⁶⁶

²⁶³ <https://www.youtube.com/watch?v=Xcyw6reiUr0> (accessed 6/4/2019).

²⁶⁴ The schools were I. E. #105 Pedro Coronado Arrascue (Cercado de Lima); I. E. #129 Yamaguchi (Santa Anita); I. E. #0085 José de la Torre Ugarte (El Agustino); I. E. #3010 Ramón Castilla (Rímac); e I. E. #3032 Villa Angélica (SMP). See <http://www.jcmagazine.com/peatones-estan-expuestos-a-accidentes-de-transito/> (accessed 10/26/2018).

²⁶⁵ <http://stakeholders.com.pe/noticias-sh/peatones-y-policias-en-riesgo-son-imagen-en-semana-de-educacion-vial/> (accessed 10/26/2018).

²⁶⁶ <http://www.jcmagazine.com/peatones-estan-expuestos-a-accidentes-de-transito/> (accessed 10/26/2018).

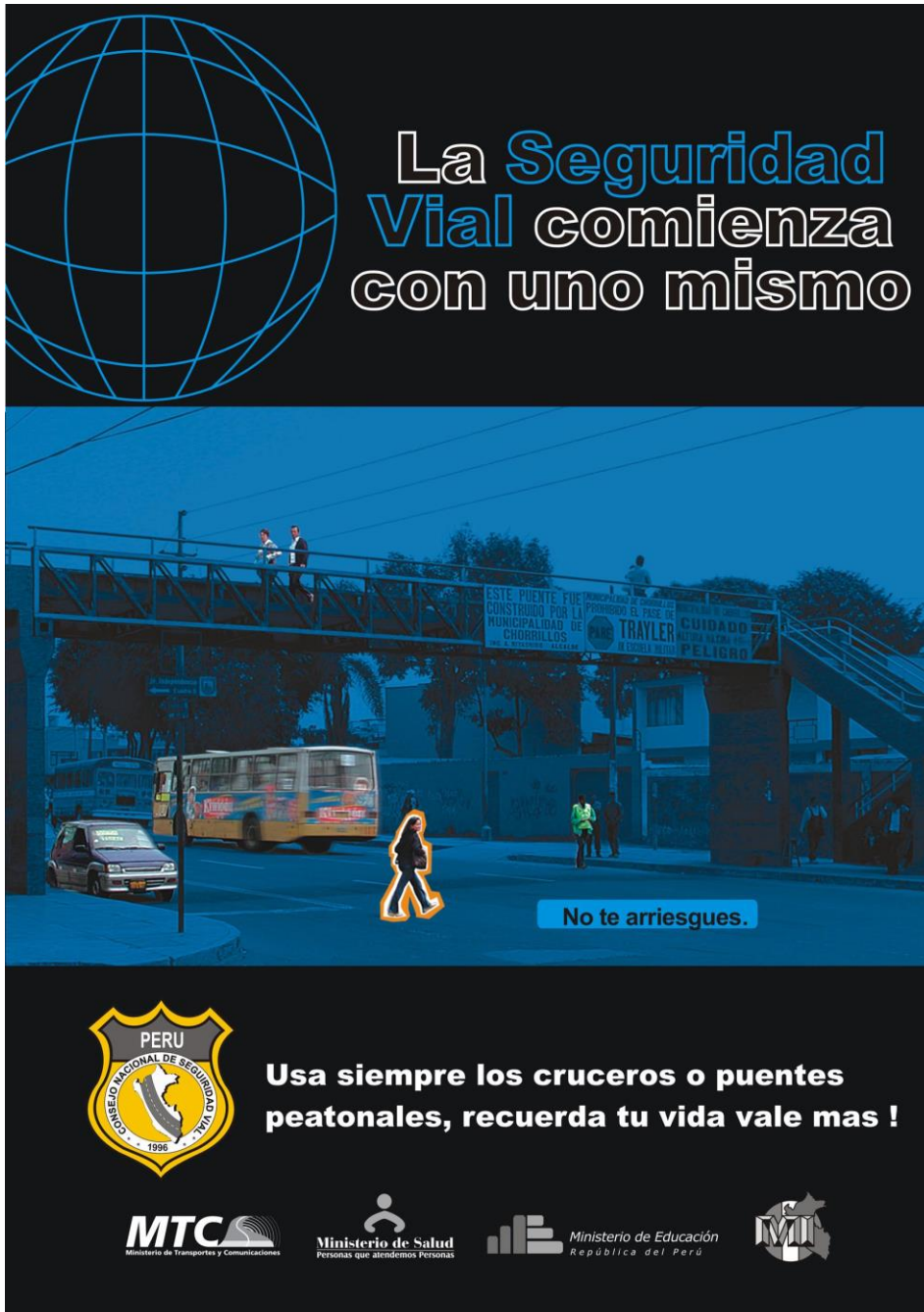


Figure 15. Flyer from a road safety campaign done by the Peruvian government, 2008.

The bias against pedestrians and in favor of drivers is also revealed in the way the press covers collisions. For instance, this is *La República* in 2016 after a minivan driver killed a person in Vía de Evitamiento: ‘This morning, a young man *was ran over by a minivan* when crossing Vía de Evitamiento and not using the pedestrian overpass Rayito de

Sol, in downtown Lima'.²⁶⁷ The blame in the fatal accident is assigned to the pedestrian for not using the overpass. The actual action of running over a person is assigned to the vehicle, not its driver: both of them become one, a 'humachine' (cf. Luke 1997). The car and the driver are 'black boxed' in a way that the agency, if at all, falls on the car rather than the person.

In Spanish speaking countries, there is a discursive strategy used by sustainable transport activists to open this black box. For too long, they say, talking about transport (*transporte*) has meant focusing on vehicles rather than people. Thus, they argue that we should shift to talk about urban mobility. It is important to note that the Spanish 'movilidad urbana' is not used in the same way as the English language mobility, sometimes related to car-centric notions of movement. Here, urban mobility means looking at movement of people rather than movement of vehicles, and particularly making clear how space is used differently by every mode of transport (Herce 2009). By talking about *movilidad*, activists seek to dehybridize the car and the human by shifting the emphasis toward the latter. The intention is to open the black box that, by considering the car, rather than the individual, as the subject of movement, supports automobility. According to this logic, car-centric transport discourse is behind policies such as predict-and-provide, where the objective is to build roads to keep up with traffic forecasts (Goodwin 2012). Transport policies such as predict-and-provide, in fact, often become performative (cf. Callon 2006). After roads are built, the demand they induce tends to congest them again (Duranton and Turner 2011). The traffic added then supposedly confirms that more capacity was needed, and roads induce car-oriented developments that then make owning a car a necessity, reinforcing automobility. Further solutions include to keep adding capacity.

²⁶⁷ <https://larepublica.pe/sociedad/833873-joven-murio-atropellado-al-intentar-cruzar-la-de-evitamiento> (accessed 8/24/2018). Emphasis mine.

When I asked Guerra García what he thought the sustainable mobility perspective on building new highways would be, he replied that

Lima needs an internal ring road and that does not change the concept that, yes, in public transit roads, public transit must have more space, right? (...) [Lima] needs accesses to the city, North Pan-American, South Pan-American and Ramiro Prialé (...) so one issue is that a city has got to have basic arterial roads through which cars flow quickly (...) every city, for example, Madrid, Barcelona. Madrid has several ring roads and that does not mean that they also hold as a concept that where you have public transit you give priority to public transit and restrict private cars.²⁶⁸

Guerra García is not wrong in pointing out the sustainable mobility argument for keeping cars outside the urban network. In fact, the idea behind building ring roads in Barcelona, a city he uses as an example, was to keep most private cars off the city's road network. To do so, the construction of ring roads was complemented with restrictions to car use within the city: the plan was to make it easy to use the highways for trips that need them. At the same time, policies would make it hard to drive on urban roads while improving alternatives, so drivers would not use them unnecessarily (Herce 2009, 159–67; Capel 2005, 49–50). A contradiction clearly stands out when comparing this experience with what was going on in Lima. The highways were not being built as a way of keeping cars off its road network but as a way of adding capacity while keeping the urban network available for them. They were built as a premium alternative for those who could afford them, without disrupting their access to the rest of the network. At the same time, tolls in existing highways were being raised, which has the potential to push current users of them towards the local road network, exactly the opposite of what building highways in Barcelona intended. Also in contrast with the Barcelona example, a plan to restrict car use in the first bus corridor implemented as part of the transportation reform was cancelled.

²⁶⁸ Interview #19, with Gustavo Guerra García (5/22/2017).

In the end, the predict-and-provide perspective prevailed over the comprehensive approach present in Guerra García's examples. See for instance his argument for building ring roads:

GGG: The peripheral road²⁶⁹ is a super important project. It is super [socially] profitable and for me it is very clear that it is needed and in our analysis, once you finish with the access to Lima, in eight years they would become congested if you do not do the peripheral, and the peripheral would become congested too in 15 years and you would need to do the perimetric road of Lima, which is like a peripheral but even farther. And we negotiated with the Ministry of Transportation to build the Lima perimetric.²⁷⁰ The perimetric road of Lima is a high priority project. Better said, you don't need to do it now, right? Now the priority is the peripheral. I mean the priority is for New Roads of Lima to be completed, to not allow [mayor] Castañeda to eliminate the Canta-Callao interchange, and with that you will have eight years in which accesses to Lima will be decent. But when you are reaching the eight year period congestion will return. Adding lanes to those roads or building viaducts over the Panamericana will not make sense. What you need is the peripheral...²⁷¹

In Guerra García's view, the road-building strategy should be based on the logic of predicting and providing for increasing demand. He takes traffic demand and increase in car use as facts over which the municipality has little power—only option is to accommodate the city to them. Prialé reveals this perspective in his take on why the administration decided not to convert Arequipa Avenue into a bus-only corridor in the episode narrated in the previous section

MP: closing Arequipa Avenue to private transportation would involve closing private mobility in a way that would congest and collapse vehicular mobility in Lima, right? I mean, if you close and say ok, I will put a tram in Arequipa Avenue, where will those cars go to? Will they either go to Arenales Avenue or to Petit Thouars Avenue? No, you might say, not as much because people will not be able to drive their car, they will take the bus. That is relative, because people that ride the bus are not necessarily the same as people that drive, so there is a technical and urbanistic problem.²⁷²

Prialé's might be right in claiming that implementing mass transit corridors will not shift people away from cars. In fact, according to polls very few Metropolitano riders drove

²⁶⁹ A ring road project that is in its planning phase.

²⁷⁰ Another ring road project, further away than the previous one, that is not yet in its planning phase.

²⁷¹ Interview #19, with Gustavo Guerra García (5/22/2017).

²⁷² Interview #18, with Miguel Prialé (5/9/2017).

before the Metropolitano opened, although some switched from taxis. But he is also neglecting the effect that the combination of higher car congestion and improved transit speeds can have. Limiting the argument to the impossibility of shifting users from cars to transit reveals a bias. Prialé does not consider the gains in time for existing transit users as a reason for improving the corridor for them. He only sees costs to drivers brought by the increased congestion that might come if they are not allowed on that avenue.

Prialé also explained to me that he saw in the administration a divide between what he calls economic visions and urbanistic visions.

MS: you say mobility is an issue that is more urbanistic than economic. What do you mean by that?

MP: that is a difference between urbanist project makers and economic project makers, right? When you look at benefits, I mean, and you think in mobility projects, the urbanist emphasizes variables that the economist not so much. So the economist emphasizes quantifiable monetary economic variables of the intervention. There you look at time and cost savings. But the territorial look of mobility and of the project is I think a more complete vision. I am an economist but urbanists have taught me to see. I mean, understanding territory and its behavior in terms of mobility lets you see in a more complete way which are the users' needs and I believe that is an important contribution at the time of proposing project design, when you look through that lens for example demand studies and an origin-destination matrix. So if you think about how to manage a territory from a mobility point of view those other non-monetary variables are important. So those perspectives are given more attention by an urbanist. So an economist will say hey, OK, I look at mobility and put infrastructure, technology and transport according to numbers that support me. So actually you would put the train where you would have the highest demand, and the urbanist thinks differently. The urbanist puts the train or the station there where you would want the territory to be served, even when it is a single student that takes the train, just like the Japanese, right? But I don't care about numbers, I care about service coverage in a territory. So if to do that I need to put a station where there are ten people I don't care, that is the network I want. Now I want to put it where the city is growing vertically, or *where I want the city to grow vertically*. The economist is more close-minded, more tied to monetary numbers.²⁷³

There might be a difference between both visions described by Prialé regarding the use of numbers and ways of understanding, describing and analyzing reality. However, there is another, more important distinction: whether one believes policy should transform reality

²⁷³ Interview #18, with Miguel Prialé (5/9/2017). Emphasis mine.

or just should adapt to it. More specifically, it is related to whether transportation planning should primarily supply for existing demand, or whether it should be used to transform demand, flows, and land use patterns. Prialé's economistic vision is similar to predict-and-provide approaches to transportation policy, while what he calls the urbanistic view is more open to using transportation policy as a way of transforming cities, that is, of planning them. That is the key distinction between views such as those held by Prialé and Guerra García, and the views of García Calderón. The effect of the former understanding their role as adapting transportation investments to a city they abstracted to be not dense is that they justified building the infrastructure that can adapt to such a type of metropolitan area: highways.

4.6. Private-finance solutions

The characterizations explained in the previous sections interacted with the availability of private finance to produce two transformations. Until the announcement of the Yellow Line, most infrastructure investments directed to expand road capacity had been limited, with very few exceptions, to specific intersections or to the widening of short road stretches. The availability of private finance, along with the commitment to automobility, paved the way for the move from specific interventions to large-scale urban highway construction. A second change came with the realization that, while roads are considered public goods, some roads could also be commodities: they could be 'bought' by those who paid for its use. The availability of private finance has allowed for these transformations by allowing local governments to bring future revenue streams into the present through the transfer of tolls to the private sector.

During the 2000s, the municipality of Lima built several overpasses and widened roads across the city in a push to relieve traffic congestion. While traffic engineers would question the usefulness of these interventions even in the short term, in Lima they went

largely unquestioned. Any intersection that was congested could be intervened this way. Similarly, new lanes were added in some arterial roads. These interventions were often done using existing right of ways, often reducing the space dedicated to parks, sidewalks or parking space, with little or no consequences for space dedicated to housing or other uses. While some people were clearly affected by the reduction of pedestrian and recreational space, protests were never strong enough to challenge the trend of road expansion, and most Limeños either supported or were indifferent to the public works.²⁷⁴ That did not change until the availability of private finance made it possible to look for interventions at a much larger scale. Visions of highway networks being built around Lima could now be put in practice because private finance allowed it.

The tolls already existed, but national limits to public debt made it impossible for local governments to bring their future revenues into the present. At least not far in the future enough to build highways that cost over USD 200 million. The availability of private finance brought by the 2008 PPP reform mentioned in the previous chapter made it possible to make large investments that would, at least temporarily, replace the piecemeal approach. New tolls would be introduced, and the existing ones would see a rapid increase in price.

The new policy also depended upon ideologies dictating who can charge for the use of roads. For instance, former Finance Minister Alonso Segura believes that people are more willing to pay for a service that is provided by the private sector than for one that is in public hands.

There are several perverse incentives that actually play against the state being in charge. I give you the example of highways. People tell you, and it is not true, I mean if you want to talk like that politically correct and say, it is not an argument, but in the field it is. When a concessionaire operates a highway for you, for instance, users have less objections to paying for using the service. When it is, when they know it is a public entity, and you increase the toll or whatever, and they do strikes, demonstrations, etc. right? That, let's say, I have not seen the data, it is not that I have

²⁷⁴ In the next chapter I show how a road underpass carried out as part of the Yellow Line project did face organized opposition, in what started a new trend.

seen it, I mean, that happens. So it is easier... that has happened a lot in water services, when water has been outsourced. When the one who operates is the public sector there is a lot of breach [of payments]. When the service is provided by a private entity, the delinquency rate is lower. Sure, water is an issue, it has failed in several parts of the world because it is still complicated, you cannot cut water service... but electricity you can, for instance. So there is also an incentive that is perverse when it is known that the one who is there is the state.²⁷⁵

As Segura implies, there is no data to support his view. In fact, recent anecdotal evidence actually suggests the opposite. In January 2017, protestors in Puente Piedra set fire to toll booths built by Odebrecht as part of the New Roads of Lima project. Protestors were upset that the project did not benefit their area, while they now would need to pay to move around it and into downtown Lima.²⁷⁶ In February 2018, truck drivers on strike blocked the main road connecting Lima to the central highlands, the Central Highway, when protesting a new toll set up by a private concessionaire. Drivers accused the concessionaire Deviandes of beginning to charge a new toll despite not complying with the terms of the contract that included investments to improve the road. They were also upset that a private company was charging for the use of an existing road. A leader of the strike interviewed in live TV said that a reason for the protest was that ‘this road already existed, this road belongs to all Peruvians.’²⁷⁷ In March, transportation regulator Ositran warned that private concessionaires would install twelve new tolls in the next few months, which could lead to social conflicts. According to Verónica Zambrano, head of Ositran, new tolls in existing roads tend to make people more upset than new toll roads. Her proposed solution was to provide better information of the improvements to the population.²⁷⁸ Protests against tolls in Lima have continued. In the second half of 2018, after Lamsac raised the fares, people organized around

²⁷⁵ Interview #28, with Alonso Segura (1/25/2018).

²⁷⁶ I elaborate on this episode in the next chapter.

²⁷⁷ <http://larepublica.pe/sociedad/1199487-transportistas-bloquean-carretera-central-por-protestas-contra-peaje-de-ticlio-video> (accesses 8/24/2018).

²⁷⁸ <https://gestion.pe/economia/vienen-12-nuevos-peajes-nivel-nacional-generar-conflictos-sociales-advierte-ositran-229249> (accessed 8/24/2018).

the collective *No more abusive tolls*, and managed to attract attention from the press and congress people.²⁷⁹

The introduction of tolls has also been interpreted by policy makers as a tool for redistribution. According to Guerra García,

There is no problem with charging a high toll to people from La Molina that want to go below Angamos-Primavera avenue to escape traffic and quickly reach the *Vía Expresa* (...) the basic concept we wanted to promote was: you transfer most private vehicles to a tunnel below Angamos-Primavera and on the surface *you now have more space* for public transit and for pedestrians, with better sidewalks (...) and the yuppies that want to drive their private cars every day, the 17% that moves by car every day to their jobs, go underground paying a toll. That, for me, was justice.²⁸⁰

What Guerra García proposes looks similar to congestion pricing, a proposal that is common among sustainable mobility activists and experts. It bears, however, a fundamental difference. Congestion pricing is based on the principle that those who add more to congestion should pay for the congestion they are bringing to existing infrastructure. It is a policy that intends to curb car use, often by raising funds to finance other transportation investments. Congestion pricing is a planned market that seeks to induce certain behaviors and promote a more space-efficient use of roads. It seeks to shape demand by putting a price to it. In contrast, Guerra García is proposing the introduction of tolls in order to build more capacity precisely for those that use the toll roads. The key difference then is that Guerra García's proposal seeks to allow car users to *buy* new infrastructure dedicated to them rather than limiting their access to existing space. Rather than shaping demand, like congestion pricing proposes, Guerra García is open to expanding supply, albeit in a fragmented way: it would maintain or reduce the space drivers can use free of charge while charging a toll for the additional capacity, which would be larger than the one that already existed (because it would be designed as a limited-access freeway in a similarly-sized right of way). In a way, it

²⁷⁹ <https://www.facebook.com/nomaspeajesabusivos/> (accessed 10/26/2018).

²⁸⁰ Interview #18, with Miguel Prialé (5/9/2017).

is allowing car users to ‘buy’ new rights of way. By saying that after putting cars underground ‘you now have more space’ for other modes, Guerra García is also implying that those modes can be given more space only if the space reserved for cars is not affected. You now have more space because you managed to give cars another right of way, not because you curbed its use. If we want better sidewalks or transit, the argument implies, we should allow drivers to buy space elsewhere.

It is important to note that this is hardly a product of a windshield view and Guerra García is far from being a conscious advocate for car use. He does not even have a driver’s license.²⁸¹ In the same interview, he mentioned that the design of one of the highway projects, New Roads of Lima, relegated buses to the service road. He, as head of the transportation reform, pushed for a change in the design in order to include buses in the main road. It may not even be the case that he believes that other modes should be given space only if space for cars is not reduced. It might just be the case that he believes it would be difficult politically, as shown in his response to opposition to the bus-only Avenida Arequipa corridor mentioned in a previous section. But the fact that somebody like him would make such an argument says something about the wider assumptions held by policy makers in Lima. In particular, the key underlying assumption is that we can have more space for alternative modes only *after* we have guaranteed space for cars. Municipal manager Miguel Prialé followed a similar logic when rationalizing the opposition to converting Arequipa Avenue into a bus-only corridor: where would all the cars go? They would congest other roads. In the arguments of both municipal officials we see the same underlying principles that make automobility resilient: any improvement to other modes of moving around the city would have to be done without affecting the space already dedicated to automobiles.

²⁸¹ <https://elcomercio.pe/lima/transporte/candidatos-volante-notepases-pone-prueba-gustavo-guerra-garcia-video-noticia-559924> (accessed 9/21/2018)

This reasoning permeated the Villarán administration's rationalization of the use of private finance for large infrastructure projects dedicated to expand road capacity for cars.

The logic can be seen in an internal report from the Agency for the Promotion of Private Investment

One of the most critical problems faced by the capital city is that of public transit, which is used by almost 80% of the metropolitan population (...) In light of this scenario, the current municipal administration has undertaken the mass transit reform, giving priority to transit over other modes of transportation (...) Within this framework, municipal resources are being directed to finance the public works and activities that are required by said mode of transportation (...) Regarding private transportation and the road infrastructure it requires, the municipality is set to improve and extend the metropolitan road network. However, massive economic resources are needed for the current road network to reach the normative proposals of the Road System [Plan], and the municipality cannot handle that level of investment. Given this scenario, the prime municipal policy in this area is to promote private investments under various schemes.²⁸²

As we see, the municipal government created a two level system of infrastructure investment. It was set to channel its limited capital budget to transit, while promoting large-scale investments in automobile-oriented infrastructure by bringing massive future revenue streams to the present. On the one hand, the government sought to make sure that transit investments were limited, to be made with its relatively small budget. On the other hand, it often publicized in celebratory terms the vast amount of resources that it managed to direct to highways, now deemed 'emblematic public works' of the administration (see **Figure 16**).

²⁸² GPIIP internal report.

GRANDES PROYECTOS PARA UNA LIMA MÁS INTEGRADA Y MODERNA

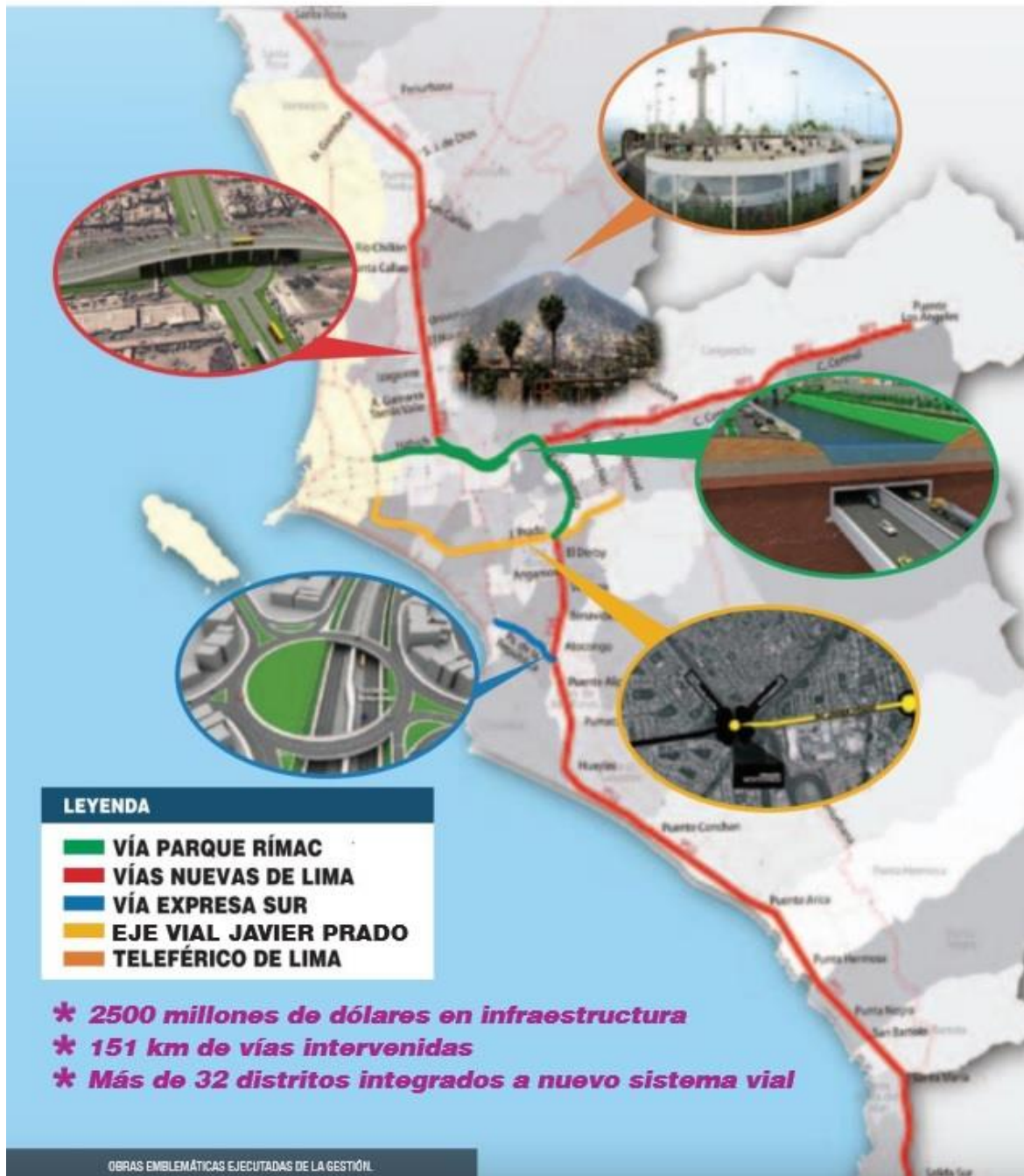


Figure 16. Brochure published by the Villarán administration. January 2014.²⁸³

In an interview with a former GPIIP official, he explained that within the Villarán administration, the progressive argument in favor of building roads with private finance was that it would free funds for more socially-oriented goals.²⁸⁴ According to this line of argument, using private finance for roads allowed them to use the regular capital budget to projects such as those that sought to improve working-class neighborhoods or provide small infrastructure improvements for transit. There is a crucial flaw in the argument: new roads were not ‘free’ as it is assumed here. Rather, they were existing revenue streams that could be, and in fact had been, used in a more redistributive way: tolls partially funded the first BRT line before being redirected to new roads. But there is an even more problematic assumption underlying the argument. By claiming that they needed private finance to reserve the regular budget for other goals, they were implying that providing road infrastructure was indispensable: had they not provided it with private finance, then the neighborhood improvement projects would have been relegated. The argument is similar to the one exposed by Guerra García, but regarding funds rather than space. In both cases, the underlying assumption is that automobility comes first. The officials that held those assumptions were oblivious about the urban effects their policy of providing roads first, transit second, would have: improving the highway network has the potential to shift preferred land uses to places that are more easily accessible by car, which further complicates the establishment of a reliable transit network (Baum-Snow 2007; Litman 2017; Schaeffer and Sclar 1980). The predict-and-provide approach, then, has effects even if their proponents believe they are only acting upon a non-malleable scenario.

The issue of using private finance in order to leave public funds supposedly untouched goes back to the nature of the financing scheme being used. One of former

²⁸³ Available at <https://issuu.com/grupoimagensac/docs/limametropolitanaultimo> as of 8/24/2018.

²⁸⁴ Interview #9 (6/14/2016).

Minister of Finance Alonso Segura's critiques to the wave of highway building was that, in some cases, they were charging without providing additional capacity. This is true: in both New Roads of Lima and the Yellow Line, the existing roads were receiving some investment, but most of the revenues generated by their tolls were being redirected to new roads elsewhere. Because solutions were being proposed within the narrow framework of private finance, an alternative answer was neglected: not outsourcing the road while implementing a similar increase in fares in order to pay for additional transit infrastructure. Tolls had already been used this way to pay for the first BRT line, but the introduction of private-finance clouded this option. Its neglect can be explained by multiple biases. A pro-automobile bias that maintains that if you charge more for car use then you must add capacity, a pro-private investment bias that maintains that people trust private providers more than public ones, and a pro-infrastructure construction and pro-growth bias that sees PPPs as a way to attract capital for construction while obscuring less expensive alternatives.

When I asked former municipal manager Miguel Prialé why the BRT line through Evitamiento was removed from the original Yellow Line project, he cited physical reasons. The width of the road under some historical bridges complicated the engineering aspects of the project. But he had another reason. According to him,

You do not need a BRT in Evitamiento to move people. You don't need that, you can have a system like the one you have in Arequipa Avenue, where public transit coexists with private transport, or the one you have in Tacna Avenue, where public transit coexists with private transport. So what was our proposal? You don't need a second BRT in Evitamiento, *you don't need to spend that much money*, you simply reorder the route system, reorder the bus stops, you install a good signal system, you enforce the rules, and with a transit system just like the Blue Corridor you can move those people with no problems, without congestion.²⁸⁵

²⁸⁵ Interview #18, with Miguel Prialé (5/9/2017).. Emphasis mine.

When municipal manager Miguel Priale explains that we ‘did not need’ a BRT line through Evitamiento, he revealed a key assumption, even if he was not aware of it. The bus-only corridor would have definitely improved speeds in the routes that use it, and especially in the ever-congested Evitamiento Highway. But that was not enough for us to need it. Maybe more importantly, the issue he had with building a BRT was that it would cost too much. The assumptions that allowed key decision-makers to push this kind of arguments were precisely what those with the vision and the economic interests in building urban highways needed for their projects to become acceptable.

This is not the only apparently contradictory argument put forward by the Villarán administration for building urban highways. As seen above, one of the principles of their transportation vision was that investments should be directed to serve the majority of the population. In this line, one of the critiques of the Villarán campaign to large investments in mass transit corridors was that these serve a small proportion of trips. The priority, they said, should not be to serve specific corridors but to begin an overhaul of the transit system in its integrity. This position was partially based on the notion that Lima was a ‘flat city.’ Because of its supposedly low density, mass transit corridors would be wasteful. Paradoxically, the people pushing this argument was also responsible of directing billions of dollars to a travel mode used by a relatively small percentage of Limeños. In fact, while the first BRT line cost USD 300 million and serves 600,000 daily trips, 75,000 cars per day are expected to go through the USD 196 million Southern Expressway. During its first three months, a daily average of 21,700 vehicles used the Yellow Line, a project that cost USD 700 million.²⁸⁶

4.7. Conclusion: private-finance automobility

²⁸⁶ <http://www.lamsac.com.pe/noticias/mas-de-2-millones-de-vehiculos-ya-circularon-por-la-nueva-via-expresa-linea-amarilla> (accessed 05/17/2018).

The short but consequential wave of highway construction in Lima depended upon technocratic representations of Lima, of its problems and of its solutions. But technocratic representations are not value-neutral. Rather, they are based on personal views, biases, and assumptions. One of these biases was the commitment to automobility espoused by the policy-making arena in Lima, which was met by the newfound availability of private finance. If beforehand the usual solutions to congestion issues were piecemeal interventions in specific intersections or road widenings, the ability of private finance to bring into the present vast amounts of revenues opened the possibility of investing in large-scale urban highway projects. I have shown how this commitment to automobility is expressed in various assumptions and characterizations of the city. A predict-and-provide approach taken by policy-makers that characterized Lima as a flat city became a way of rationalizing the decision to invest in highways. Similarly, the assumption that any improvement for other modes of transport was dependent upon guaranteeing enough right of way for cars was a path for justifying investing in highways.

In the following chapter I will show how contestation to particular aspects of the highway projects reveal that both the technocratic, depoliticized view of urban problems and the commitment to automobility are beginning to be disputed.

Chapter 5: Conflicts over Urban Space and Mobility

5.1. Introduction

In the last chapter I showed how a depoliticized approach to transportation solutions has paved the way for the introduction of privately-financed highways in Lima. In this chapter, I will show how the variegated ways in which people have protested against these projects reveal their political nature. The protests have focused on two issues that were largely overlooked when planning and publicizing the projects. One of the highways, the Yellow Line, has shown that the long-held consensus under which consolidated *barriadas* were safe from eviction is potentially under threat. Large parts of Lima urbanized starting in the 1950s through land occupations. Often, these squattings were at risk of eviction during its first days, and dwellers had to fight for their right to remain there by weathering repression and establishing links with state agents. But after the squattings consolidated into *barriadas*, the right to keep living in them has been largely considered to be safe, even when legally precarious. The construction of a highway through a 60-year old group of *barriadas* put this consensus into question.

During the period of rapid urban growth in the peripheries through land squattings, most demands were made around the right to stay in that land and around the right to get urban services and infrastructure such as water, electricity and local roads. These demands were metropolitan in scale insofar as they were made simultaneously in new neighborhoods all around the city and they were reflected in new legal frameworks to adapt the city to them.²⁸⁷ But they were also local in that their objectives were to get local infrastructure, even when at times there was solidarity between neighborhoods.

²⁸⁷ See chapter 2.

The other issue, then, is that the sudden increase in the use of PPPs in Lima has led to a round of mobilizations that brings new claims over the city. The rapid reconfiguration of urban space through massive investments in automobile-oriented infrastructure has brought a new type of demand. Rather than demanding local services, people are now making claims about the right to move around the city. These protests are made visible on specific pieces of infrastructure, but the claims they raise go beyond those locations. These are claims to the right to urban mobility and to a voice in shaping the way urban space is designed in order to allow for that movement. Thus, the claims are about urban space as a whole and not only about specific neighborhoods.

The three cases presented in this chapter show the new challenge brought by privately-financed infrastructure and the new claims residents of Lima are making over the effects brought by it. The first one shows the conflict between this new way of delivering transportation infrastructure and the newfound challenge it presents to established low-income neighborhoods. The second case shows that the construction of an underpass in downtown, which was allowed by the flexibilities and lack of checks offered by the PPP scheme, brought together a diversity of protestors who protested the underpass as a symbol of an urban vision they were against. In the third case, residents of a peripheral mid- and low-income district protest against the prohibitive costs to mobility brought by the implementation of a new toll under a highway PPP.

The diversity of protests faced by the highway projects reveal issues defenders of the PPP scheme have largely overlooked. In contrast with the rhetoric that celebrates PPPs because they can further depoliticize the process of providing infrastructure that should allegedly be technical, these protests reveal the deeply political nature of infrastructure. The private initiative scheme apparently hides political aspects in a variety of ways: by concealing the details of projects until they are already underway, therefore excluding participation in the

planning process; by displacing responsibility from the state, shifting it towards direct channels between the corporation and local residents; by making decisions based on financial criteria, deemed technical, rather than social interest criteria, deemed political; and by letting a contract or an independent regulatory agency dictate fares. Each of these moves contributes to the black-boxing of infrastructure by shielding it from the political process. But they do not prevent projects from having negative consequences for people. They do not prevent these people from protesting and opening the black box of infrastructure either. The political nature of PPPs is put on the surface through the mobilizations that these negative consequences spark.

5.2. ‘They are putting this project over our right to housing’

In the morning of February 18th, 2010, hundreds of residents from an area west of downtown known as the Margen Izquierda del Río Rímac (MIRR)²⁸⁸ (see **Figure 17**) marched to protest against eviction.²⁸⁹ The Yellow Line highway, to be built as a public-private partnership, would require the demolition of hundreds of homes and the eviction or relocation of the people that lived in them. Most residents of the area, however, learned about the project only after it had been already approved. In November 2009, newspapers announced that the project had already been adjudicated to its original proponent, Brazilian corporation OAS, through its special purpose vehicle (SPV), Lamsac (Línea Amarilla SAC). The first time the project was mentioned in the press was in July that year, after the city council had declared the project to be ‘of interest,’ that is, it had approved the proposal and thus opened a 90-day window for other consortia to bid. Newspapers presented the news in

²⁸⁸ Translation: Left Bank of the Rímac River. From now on, MIRR.

²⁸⁹ <https://larepublica.pe/sociedad/449439-vecinos-de-margenes-del-rio-rimac-rechazaron-desalojo> (accessed 8/28/2018).

celebratory terms and dedicated little or no space to the negative consequences the project would have for local residents. However, when local organizations found out about the details of the project they began to organize and mobilize against it.



Figure 17. Map of Lima showing the location of the Margen Izquierda del Río Rímac (MIRR). Left side markers: port and airport. In yellow: the Yellow Line concession (dark: new highway, light: existing highway). Red: Margen Izquierda del Río Rímac. Gray: downtown (historic center). Top right of downtown: Cantagallo. Just south of downtown:

The lack of information given to potentially affected residents is not by chance. As explained in chapter 3, the concession model for unsolicited bids is designed in a way that hides information to everyone but the proponent and the municipality until the project has been approved. In fact, when local leaders from the MIRR learned that such a project was being evaluated, they asked the municipality for information. Their demands were rejected, as the municipality claimed that details about the project were confidential (Strauch, Takano, and Hordijk 2014). It is a concession model that is designed to act first and ask questions later. In a way, this is similar to what Enrique Silva has called ‘deliberate improvisation,’ in

which the state carries out a project for which, rather than dealing with all of its social consequences early on, is willing to take care of them afterwards (Silva 2011). It is deliberate in that the renegotiation that comes after the approval is assumed, albeit not formally, to be part of the process rather than an unexpected addition. By approving a project that will affect hundreds of residents, decision makers knew they would face opposition. But the procurement design allows them to deal with that opposition later. In the case of the Yellow Line, given that the contract was signed only a month before Mayor Luis Castañeda's term ended, the decision was to make the following administration deal with it.

After at least two years of talks with power brokers at the municipal government, in March 2009 the Brazilian construction firm OAS submitted a formal proposal to build a highway that would connect downtown Lima with Callao, the city where the country's main seaport and airport are located.²⁹⁰ The highway would be named Línea Amarilla (Yellow Line), replicating a highway OAS had already built in Rio de Janeiro (Linha Amarela), and making a gesture to Lima's conservative mayor, Luis Castañeda (2003-2010 and 2015-2018), whose party is identified by the color yellow. The link between the road along the MIRR and the Vía de Evitamiento, a major urban highway located north and east of downtown, would be made through a tunnel beneath the Rímac River, so the road would not disturb the historic center. The center is a UNESCO World Heritage Site, and building an elevated highway through it would be unimaginable. Just west of the historic center, however, sits the MIRR, and building a highway through it was not considered to be as controversial by the construction firm or by the municipal government.

The MIRR is a group of low-income neighborhoods that began to be inhabited in the 1950s mostly through land squattings. One of those neighborhoods is Dos de Mayo, which

²⁹⁰ During the session in which the proposal was approved, a council member mentioned that conversations had begun at least two years before the formal proposal was submitted. Council minutes. Acta 26-2009 (6/25/2009).

sits on a triangle between the river, a two-way road (Avenida Morales Duárez), and a local road leading to a bridge across the river. Two- and three-story houses line up the streets in Dos de Mayo as well as in the nearby areas, Primero de Mayo, Villa María del Perpetuo Socorro and Planeta, all of them in Margen Izquierda (see **Figures 18 and 19**). The different names originate in the founding moments of the neighborhoods. Each one of them has a separate neighborhood association created in the process of squatting: local histories foster collective identities that are brought to the present in the demarcation of barrios and the associations representing them (see **Figure 20**). There are also some differences regarding tenure: in some neighborhoods most people are legal owners of their homes, while in others they are ‘possessors,’²⁹¹ a legal term that means that they have lived enough time there to claim it but do not have legal titles yet. It is also a precarious type of tenure, which can be undone if there are reasons to deem the area uninhabitable. This inequality is also reflected in the quality of infrastructure: while roads in Dos de Mayo, where most people have titles, are paved, some areas of Primero de Mayo and Villa María, where most people do not, have dirt roads despite existing for six decades and being located very close to downtown.²⁹² Besides these local associations, there are other organizations that claim representation of the whole 80,000 people living in the MIRR. In 2010, these were Asovecmirr and Ademirr.

²⁹¹ Posesionarios.

²⁹² The information about property titles is in constitutional ruling 00011-2010-PI/TC. Available at <https://www.tc.gob.pe/jurisprudencia/2011/00011-2010-AI.html> (accessed 6/4/2019).



Figure 18. Street in Primero de Mayo. Photo by the author, January 2011.

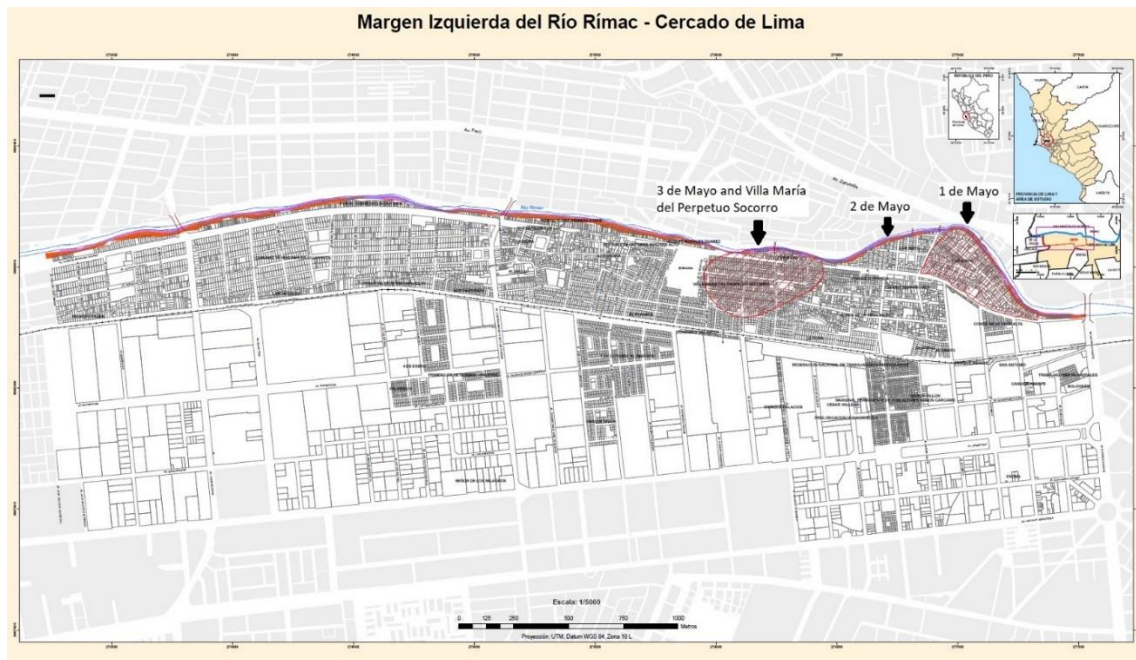
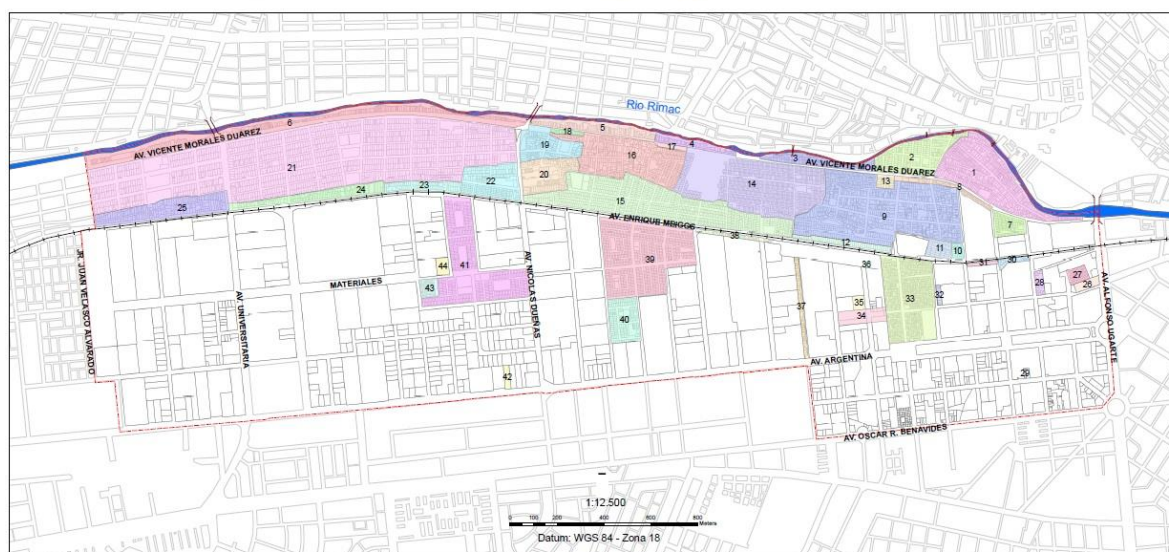


Figure 19. Location of neighborhoods affected by the Yellow Line. Source: COOPI (2008) – Estudio de identificación de zonas de peligro y vulnerabilidad en seis AA.HH. de Lima y El Agustino, Provincia de Lima – Proyecto DIPECHO, ECHO/DIP/BUD/2007/03002.

Organizaciones vecinales en la Margen Izquierda del Río Rímac



Legenda: Organizaciones vecinales en la MIRR en Diciembre 2007

1-AA. HH. BARRIO OBRERO 1 DE MAYO	12- COOPERATIVA DE VIVIENDA LA FLOR	22- AA. HH. CESAR VALLEJO MIRONES BAJO	34- AA. HH. PROLONGACION HUANCVELICA
2-AA. HH. BARRIO OBRERO 2 DE MAYO	13- AA. HH. CHAFLUGA GRANDE	24- AA. HH. LOS ANGELES	35- AA. HH. CESAR VALLEJO
3-AA. HH. TRES DE MAYO COMITE MPDI	14- AA. HH. VILLA MARINA DEL PERPETUO SOCORRO	25- AA. HH. RICARDO PALMA	36- AA. HH. FEDERACION NACIONAL DE TRABAJADORES FERROVIARIOS
4-AA. HH. VICENTE MORALES DUAREZ	15- AA. HH. EL PLANETA	26- QUINTA BOLONDES	37- AA. HH. ENRIQUE PALACIOS
5-AA. HH. 9 DE OCTUBRE PRIMERA ETAPA	16- JUNTA VECINAL COMUNAL DE SANTA ROSA DE MIRONES ALTO (JUVEDROMA)	27- AA. HH. TRABAJADORES MUNICIPALES	38- AA. HH. CONDUELO ELASCO
6-AA. HH. 9 DE OCTUBRE SEGUNDA ETAPA	17- ORGANIZACION DE POBLADORES, COMITÉ 1 SECTOR 9 DE OCTUBRE MIRONES ALTO	28- ASOCIACION DE VIVIENDA CAHUIDE ADOPTO	39- AA. HH. 1 DE OCTUBRE EL RESCATE
7-AA. HH. CONDE DE LA VEGA ALTA	18- JUNTA VECINAL NUEVA CIUDAD DE LUZ	29- QUINTA FATIMA	40- URBANIZACION PARQUE UNION
8-AA. HH. JOSE GAUZEZ BARRNECHEA	19- JUNTA VECINAL MIRONES ALTO - JUVEMA	30- AA. HH. SAN ANTONIO	41- AA. HH. PRIMERO DE DICIEMBRE (PALERMO)
9-AA. HH. CONDE DE LA VEGA BAJA	20- COOPERATIVA DE VIVIENDA EL VILLO	31- AA. HH. ENRIQUE MEIGGS	42- QUINTA SEÑOR DE LOS MILAGROS
10-AA. HH. ACOMAYO	21- JUNTA VECINAL COMUNAL DE MIRONES BAJO (JUVEDCO)	32- ASOCIACION DE VIVIENDA GARCIA VILLON	43- AA. HH. PALERMO II
11- URBANIZACION CABINELLI	23- URBANIZACION SAN FERNANDO	33- AA. HH. MARGINAL PERMANENTE DE POBLADORES RAMON CARCAMO	44- AA. HH. 4 DE ENERO

Simbología	
	Puentes
	Ferrocarril
	Río Rímac
	Zona de estudio

Existe también tres organizaciones que representan a la MIRR: JUVEGEN (Junta Vecinal Central), MECOMIRR (Mesa de Concertación de la MIRR) y ASOVCEMIRR (Asociación vecinal de la MIRR).
Fuente: Lotes ICIL, Vías INEI, Información de campo (Nov. / Dic. 2007)
Responsable: Jeremy ROBERT

Figure 20. Map of all neighborhood organizations in the MIRR. Source: COOPI (2008) – Estudio de identificación de zonas de peligro y vulnerabilidad en seis AA.HH. de Lima y El Agustino, Provincia de Lima – Proyecto DIPECHO, ECHO/DIP/BUD/2007/03002.

The MIRR has some characteristics that distinguish it from other low-income areas in Lima. One of these is that it is centrally located, while spatial segregation in Lima is, with some exceptions, organized in a center-periphery pattern. Another difference is related to political boundaries and administration. Several districts in Lima began as groups of squatter settlements, and later become semi-autonomous communities officially recognized. For instance, across the river from the MIRR is San Martín de Porres. The occupation of both sides of the river began almost simultaneously. However, in the 1950s San Martín became a district, meaning that their population could have a district mayor and councilors. As opposed to districts such as San Martín, the MIRR lacks a local government. About 275,000 people live in the district of Lima, within which it is located. But the mayor of the district is elected

by the whole province of Lima (population 8.6 million)—in Peru, the mayor of a province is also the mayor of the district that serves as the province seat. In fact, some leaders identified the lack of local mayor as a reason their neighborhoods had been neglected for so long.²⁹³

While new squattings are often rapidly evicted by the police, it is actually uncommon for the government to forcibly displace established low-income neighborhoods in Lima. The project, thus, needed to be presented not as a threat but as an improvement for residents occupying an area declared by the government to be ‘at risk.’ In February 2010, municipal manager for Urban Development Nancy Zedano claimed that there was an open dialogue between the municipality and local residents about dealing with issues of environmental risk in the area. She added that, rather than displacement, a process of relocation was occurring. Certainly, the houses located closest to the river were in danger of falling into it. From the bridges that cross the river, one could see houses that are barely clinging to the upper side of a very steep cliff, about 50 meters above the river bed. In April 2008, John Garay (28) died after part of his house located in Primero de Mayo fell into the river. *El Comercio* reported that this was consequence of a long-term problem that had not been addressed properly by the authorities with a story titled *A tragedy announced since 1942*.²⁹⁴ The presence of houses close to falling into the river was, in fact, a serious issue that needed to be addressed.

When in April 2011 part of a house fell into the river, the main private TV broadcaster in Lima, *América TV*, reported live from the site the morning after the accident. A reporter interviewed resident Rosa Mendoza while two other journalists asked questions from the main studio:

Studio 1: Oh Martín, you are there! How dangerous!

Reporter: We are here, a few steps away. According to what we've heard, Miss Rosa Mendoza, who has lived in this house for 60 years, last night (...) heard a roar and part

²⁹³ Interviews #2, #3 and #4 (12/11/2010, 12/14/2010 and 12/15/2010).

²⁹⁴ *El Comercio*, *Una tragedia anunciada desde 1942* (4/5/2008).

of her house literally fell into the river.

Studio 1: It was really sudden.

Rosa: [crying] my children's stuff, shoes, clothes, everything fell down.

Reporter: This was a room, madam. Fortunately there wasn't anybody there.

Rosa: No, fortunately nobody was there, because if not, who knows what would have happened. But I was alone (...) and began to shout, desperately, calling for help, but it was even worse, it moved, it all cracked.

Reporter: It fell as well

Rosa: Everything, my sink, my room. Everything fell down.

Studio 1: But, haven't you been told that that part of the house was at risk?

Rosa: No, no, no, we've never been told that. I've lived peacefully.

Reporter: Hasn't Defensa Civil²⁹⁵ come to warn you?

Rosa: They only came last night.

Studio 1: No, they must have gone and warned you because it's not the first time a house falls down. I recall listening in the radio just some weeks ago that the same happened to other house. [Cameras show other houses affected]

Studio 2: ...But people have been warning about this for many years now, we remember doing several live reports from this area.

Studio 1: Maybe it was an issue of lack of decision from the authorities, right?

Because, you plan, you explain the people what are you going to do, and you move everybody out of here, right?

Studio 2: Sure, there have been several attempts.²⁹⁶

This episode shows the media trying to blame the resident for her misfortune. Rather than empathize with Rosa, the reporter and the two studio journalists seem interested in

²⁹⁵ Defensa Civil, short for Instituto Nacional de Defensa Civil, is the national body in charge of managing risk and responding to disasters. Its motto is 'Defensa Civil: tarea de todos' ('Civil Defense: a task for all of us').

²⁹⁶ <http://www.americatv.com.pe/portal/noticias/ciudad/parte-de-una-vivienda-cae-al-r-o-r-mac> (accessed 5/9/2012).

Studio 1: Ay Martín, ¡tú estás ahí! ¡Pero qué peligro! *Reporter:* Estamos aquí a unos pasos. Según nos han comentado aquí, la señora Rosa Mendoza, quien vive en esta vivienda durante 60 años, ayer por la noche (...) sintió un estruendo y literalmente parte de su casa cayó hacia el río. *Studio 1:* Realmente fue intempestivo... *Rosa:* ... [crying] se cayó lo de mis niños, zapatos, uniformes. *Reporter:* Esto era una habitación señora, felizmente no había nadie ahí. *Rosa:* No, menos mal que no ha habido nadie, porque si no, qué hubiera sido. Pero yo estaba solita (...) y comencé a gritar, desesperada, que alguien me ayude, pero peor, se movió, se rajó todo. *Reporter:* Se cayó también. *Rosa:* Todo, mi lavadero, mi cuarto. Todo se ha venido abajo. *Studio 1:* ¿Pero no le habían dicho que estaba en riesgo esa parte de la casa? *Rosa:* No, no, no, nunca nos han dicho. Yo tranquila he vivido. *Reporter:* ¿No ha venido Defensa Civil a advertir? *Rosa:* Anoche nomás han venido. *Studio 1:* No, seguramente les han avisado porque no es la primera vez que una casa cae. Yo recuerdo haber escuchado en la radio hace solamente unas semanas que ocurrió lo mismo con otra vivienda. [Cameras show other houses affected] *Studio 2:* ...Pero esto se venía advirtiendo hace varios años ah, recordamos varios microondas que hemos hecho... *Studio 1:* Tal vez faltó también un tema de decisión de la autoridad, ¿no? Porque se organiza, se explica a la gente qué es lo que se va a hacer y se saca a todas las personas de aquí, ¿no? *Studio 2:* Seguro, se hizo varios intentos.

emphasizing her personal responsibility in living in an area she should have known was risky. Reports like this are often the only way outsiders learn about the MIRR through the mainstream media. The report did not include, for instance, the fact that in 2004 Asovecmirr had proposed the municipal government to carry out a local census and a relocation plan.²⁹⁷ In fact, as Zedano mentioned, the history of proposed interventions and relocations is long. In 2008, the president of Asovecmirr declared to *El Comercio* that residents in risky areas were willing to relocate.²⁹⁸ Just a few weeks earlier, however, José Fernández, deputy manager for Civil Defense at the Municipality of Lima, had declared that relocating residents would be a prize for ‘those that invaded forbidden land.’²⁹⁹ It is true that there had been talks, but they had not produced any meaningful results and the approval of an ordinance declaring the area to be at risk without a complementary decision to implement a relocation plan would only exacerbate residents’ mistrust towards their local government.³⁰⁰

Furthermore, what Zedano failed to mention is that the Yellow Line project was never part of those conversations. As mentioned above, the negotiation between the municipality and the firm was hidden from local residents, who had every right to feel uneasy about its consequences. The fact that the project was approved with no local consultation was cited in interviews by local leaders as one of the key reasons to oppose the project. We can only speculate about this, but had the project been planned through traditional public procurement, it is possible that organized opposition to it could have stopped it before it being approved. Under the secrecy brought by the PPP scheme, residents learn about the project, and thus can only organize against it, *after* the proponent has secured the government-mandated right to deliver it. Their power to stop the project, then, is reduced, as its cancellation would mean

²⁹⁷ *El Comercio*, *No existe plan de reubicacion de zona en alto riesgo en ribera del rio Rimac*. (4/14/2008).

²⁹⁸ *El Comercio*, *No existe plan de reubicacion de zona en alto riesgo en ribera del rio Rimac*. (4/14/2008).

²⁹⁹ *El Comercio*, *No existe plan de reubicacion de zona en alto riesgo en ribera del rio Rimac*. (4/14/2008).

³⁰⁰ Ordinance 1020-MML (5/29/2007).

that the local government would have to compensate the consortium and would probably also lose trust from other potential investors.

While the MIRR is near downtown Lima, it is not a place frequented by people living or working outside of it. It is, in a way, a peripheral neighborhood right beside downtown. Thus, it is subject to representations of space mediated by those with the power to project images of the neighborhoods to outsiders. The MIRR is often represented as an uninhabitable space, where only extremely poor, deviant, or irresponsible people could dare live. News stories such as the one presented above reproduce these representations.

The other common treatment Margen Izquierda gets in mainstream and official discourses is being completely overlooked. After signing the Yellow Line contract, Mayor Luis Castañeda was invited for an interview at a TV show in *Canal N*, the main cable news channel in the country. During a 30 minute-long interview, there was no mention of the need to evict people. In fact, he did not say a word about the neighborhoods. The interviewer, Jaime de Althaus, did not ask about that either, even when a video used by Castañeda to explain what the project was about showed the highway clearly being built upon them. As the video was shown, the mayor explained how modern it would be to have a highway running beneath the river: ‘there will be a 3km-long tunnel below the river, built on the most modern conditions, high-end technology.’³⁰¹ Moreover, he argued that the highway was part of the act of taking the city into the future: ‘here we have found a backward city. We want to put it in the future and made real that vision of a future for it.’³⁰²

Castañeda, along with the interviewer, represented a space of modernity in which the

³⁰¹ ‘hay 3 kilómetros de túnel por debajo del río Rímac, construido en condiciones de las más modernas, última tecnología’. According to the contract and other documents related to the planning of the project, the tunnel would be ‘approximately 2 km long’. In fact, the tunnel, now completed, is only 1.6 km long, which has been denounced by the press as a source of –hidden- cost overruns.

³⁰² ‘nosotros hemos encontrado -y está todavía- una ciudad atrasada. Queremos ponerla en el presente y tener una visión de futuro y materializar esa visión de futuro’

MIRR had no place. The channel through which the highway would drive the country toward a modern ideal bypassed the MIRR. This vision of modernity was replicated in the media. In November 2009, some days after the council had adjudicated the project to Lamsac, *La República*, a moderate newspaper, reported about the signing of the contract emphasizing how the project was such a modern one, including a tunnel

¿Below the river? Yes, it will be a modern engineering work that will allow vehicle traffic in a short period of time from Vía de Evitamiento to Mirones.³⁰³ From there on, the vehicles will go on through a wide route by the river, heading west. The tunnel will have anti-seismic structures that will make it safe to natural disasters. Moreover, it will have artificial lights, modern signposting, permanent surveillance and ventilation ducts.³⁰⁴

A few days earlier, *El Comercio*, a conservative newspaper, ran the story with the title *Lima se moderniza (Lima modernizes itself)* (11/4/2009). As in *La República*, no references to the eviction or relocation were made, even when a map with the highway going through Margen Izquierda was included.

Neither did the media give any attention to the process by which the project came to be. In 2005, the municipality had rezoned Primero de Mayo, as well as the area between Morales Duárez and the river, except for Dos de Mayo, as a Special Regulatory Zone (SRZ) for Urban Renewal and Physical Safety.³⁰⁵ Two years later, when talks between OAS and the municipality had begun, another ordinance included Dos de Mayo as a site that required urban renewal because it was in ‘high risk.’³⁰⁶

Morales Duárez, the road that would be transformed into a four-lane limited-access highway, was a fluid border between neighborhoods. In the eastern side of the area, it is a

³⁰³ As it goes through Lima, the Pan-American Highway is known by three different names: Panamericana Norte in its northern section, Vía de Evitamiento in its central section, and Panamericana Sur in its southern section. Mirones is the neighborhood on the western part of Margen Izquierda. It is slightly wealthier than the other neighborhoods.

³⁰⁴ *La República*, *Nueva Vía Expresa En 5 Años* (11/13/2009). Available at <https://larepublica.pe/sociedad/432327-nueva-via-expresa-en-5-anos> (accessed 6/4/2019).

³⁰⁵ Special Regulatory Zone is a category that is meant to allow an intervention through a specific plan.

³⁰⁶ Ordinance 1020-MML (5/29/2007).

two-way, two-lane road. In the western part, it was already a four-lane arterial. In the two-lane portion, traffic was slow, which made it easy to cross the road at any time without having to wait much. The road was also a central space for everyday life in the MIRR. It was the only road that used to go through all of its neighborhoods, and was also used by combis that go to downtown Lima and Callao. It was lined up with houses and shops, as well as spaces where people segregate trash for recycling (M. Durand and Metzger 2009; Equipo Ciudades Focales 2011). Its paved road and sidewalks allowed for a pleasant walk, which is only perturbed by the freight trucks that use the wide roads that go across it and over the river. The original Línea Amarilla project would not only displace hundreds of families, but would transform this space into a four-lane highway, essentially destroying a public space that was being heavily used by residents of MIRR.

When they learned about the project and the threat of displacement it represented, residents organized to contest it. Initial protests were organized by Asovecmirr and were supported by some of the other neighborhood associations. When interviewed in December 2010, one of the leaders said that, if it was necessary, we would see ‘another Baguazo’, in reference to a violent episode that took place in the Amazon region when police opened fire against indigenous people blocking a road to protest laws that limited their rights to their land. Twelve police officers and at least ten protestors died, and hundreds were injured.³⁰⁷ In the MIRR, residents engaged in diverse strategies of mobilization. In February 6th, 2010 they blocked a bridge over the Rímac River. In the following months they constantly marched in downtown to protest against the project. In May 2010, they marched to Congress demanding the repeal of ordinance 1020 claiming that it violated their right to housing.³⁰⁸ The

³⁰⁷ See <https://nacla.org/news/blood-blockade-perus-indigenous-uprising> and <https://nacla.org/news/bagua-peru-year-after> (accessed 2/6/2019).

³⁰⁸ <http://asovec-margenizquierda.blogspot.com/2010/05/exitosa-movilizacion-al-congreso.html> (accessed 10/10/2018).

neighborhood associations also claimed that the rezoning of parts of the MIRR as an environmentally risky area that must be evicted did not conform to technical information. In fact, while some areas had been declared risky in technical reports, Dos de Mayo had not (Cooperazione Internazionale and Instituto Metropolitano de Planificación 2008), at least in reports that preceded the ordinance, and it was included as a zone to be intervened for physical safety anyway. This way, they sought to change the discourse from one of modernity for all to the specific effects these modernizing projects had. To the abstract space meant to function as a channel for capital and traffic, residents countered with the concreteness of housing that would disappear. But their complaints did not necessarily challenge the project itself. Instead, they opposed the zoning change that allowed for it.

Neighborhood associations also began talks with left-leaning members of congress, who supported them in presenting a constitutional lawsuit against ordinance 1020. On May 14th 2010, 32 congresspeople filed the lawsuit against articles 1.11 and 6 of the ordinance. The 1993 Constitution, however, had eliminated the right to housing.³⁰⁹ Thus, in the lawsuit it was argued that the ordinance went against the right to property and to choose the place of residence. In June 2011, the lawsuit was overturned, with one of the judges arguing that the right to property cannot be maintained when the life of the owners is at risk. The ruling also declared that parts of the neighborhoods were located in the marginal strip of the river bank, which according to national laws is public property. The Court, however, declared that a relocation plan must be put in place.³¹⁰

In conversations I and a research assistant had with local leaders, they were ambivalent about the benefits of the project for Lima as a whole. Some of them recognized

³⁰⁹ The 1979 Constitution included the right to housing: Article 10: A family has a right to decent housing (La familia tiene derecho a una vivienda decorosa). The 1993 Constitution did not include such provision.

³¹⁰ <http://www.tc.gob.pe/jurisprudencia/2011/00011-2010-AI.html> (accessed 8/28/2018).

the need for investing in infrastructure. However, there were also doubts about whether the money should be invested in roads rather than rail or other types of investments such as parks or health services. Another leader pointed out that the road was a ‘negociado’, a corrupt deal. According to him, profits would be ‘astronomical.’ He mentioned that, after doing some estimates, ‘they will turn those 600 million into billions in three years.’³¹¹

The leader of one of the organizations claiming to represent the whole MIRR went beyond corruption in explaining the reason why the project was being built. For her, it was about fostering the export-oriented economy, as the highway would allow products to reach the sea port more rapidly. But she also questioned the fact that the highway was going to be built through a relatively narrow right of way rather than wider parallel roads that could also reach the port. According to her, building through low-income neighborhoods was easier because projects such as this one would face sterner opposition in middle-class neighborhoods:

We believe that, well, they think that because it is an area of extreme poverty, where poor people live, well, it’s easy to relocate them. Imagine if the project had been proposed for the La Marina Avenue,³¹² do you think it would have been possible for people living there to allow them to launch this project in this way? They would have connected the port of Callao anyway, which is the objective (...) we know that is their option. But the benefit is not for all, it is for some³¹³

In fact, as mentioned in chapter 3, social consequences were incorporated into PPP projects such as the Yellow Line insofar as they could increase financial costs. This could be because of delays produced by unrest, which could in turn require higher compensation packages. According to one of the private firm representatives I interviewed, cost analysis

³¹¹ Interview #2 (12/11/2010).

³¹² La Marina Avenue runs across the middle-class districts of Magdalena and San Miguel on a 30meter-wide right of way. Morales Duárez had a 24 meter-wide right of way, although in the eastern parte of MIRR half pof the legal right of way was occupied by houses, making it a 6 meter-wide two-way street.

³¹³ Interview #2 (12/11/2010).

include the fact that ‘there are areas that will tell you “you can’t go through here”.’³¹⁴ MIRR leaders were well aware of this.

The uncertainty about the details was planned by Lamsac as a tool to curb potential unrest. Telling all affected residents at the same time that they would have to leave their homes with little compensation had the potential of triggering a massive protest in all of the MIRR at once. For instance, according to the leader of Primero de Mayo, in a meeting they had with the municipality and Lamsac, he was told that the route across MIRR was not yet defined. He told the interviewer that he thought that claim was false and showed a lack of transparency. Another leader being interviewed added that they were ‘moving forward with lies.’ Leaders knew that information was being hidden from them, and that fact together with the lack of public information during the planning process, let alone consultation, were cited as some of the reasons that made them so eager to contest the project. As much as planned uncertainty was a strategy to contain protest, then, it was also a trigger for it.

Some leaders were also interested in not sounding like they opposed progress. What was unanimous was the opposition to the way it was approved and the negative consequences it would bring to the neighborhoods. In particular, they were upset at what they perceived as an abusive use of power against them. As one of the leaders put it,

Any public project will always have a social cost and a social benefit. So what they do in any good evaluation is to weigh the social cost and the social benefit, and in fact the project goes through if the social benefit is greater than the social cost. Now, from that point of view any project that benefits society is OK, but it cannot trample in such an abusive and disproportionate way in terms of power. How much is our capital as individuals? It is small against the municipality that has plenty of resources, or against the company that represents private interests. So there you see the asymmetry of power. We do not agree with it. In any case, I mean, we are not, let’s say, we don’t want to put a stop to what is a project for the development of the country or for the community. The project is fine, I know that this one and many other projects should go through because it is a necessity. Lima is growing and there is an economic boom, we need to grow... but it has to be done in an orderly and consensus-reaching way, not in this abusive manner. The project should be done, but respecting our rights,

³¹⁴ Interview #10, with representatives from Graña y Montero (6/16/2016).

asking us, and in the worse of cases providing an alternative that benefits the social community and us who as individuals will be affected.³¹⁵

In contrast with the leader pointing out specific winners of the project (exporters, the concessionaire), this other leader felt necessary to point out that they did not want to be a stumbling block for development. It could well be the case that this leader felt that it was politically savvy to present themselves as not opposing projects like this, especially to an outsider such as the research assistant that conducted the interview. But whether he does believe that opposing the project is opposing development or not, the fact that he presents it this way tells a story about the atmosphere in which the project had been approved. If they were to gain anything from contesting it, some of them felt it would be by pointing out the specific ways in which the project was abusive towards them rather than making a case against the project itself, or, as this leader put it, against 'development.' The specific way in which the project affected them was that it could leave several families without a home or, at best, in a small apartment potentially far from their neighborhood, and from downtown, thus far from their jobs. Changing that by improving compensation packages or making sure that the apartments were large enough and located in or near the MIRR was the minimum required by those protesting.

It was in this context of contestation that center-left mayoral candidate Susana Villarán visited the neighborhoods and offered them to revise the project in order to prevent displacements. Once in power (2011-14), her administration renegotiated the project. The renegotiation was made with no participation from local leaders. Only representatives from the municipality, from the concessionaire, and from investors had a seat in the table. In June 2011, the municipality announced that, after rounds of negotiations between the municipality

³¹⁵ Interview #4 (12/15/2010).

and OAS, the project had been modified. Its name was changed to Vía Parque Rímac (Rímac Park Way), the projected investment was raised from \$571 to \$700 million, and the period of concession expanded from 30 to 40 years. In exchange, the firm would now improve the terms of relocation, dedicate \$4 million to capital investments in Margen Izquierda, build a connecting road from downtown to the northeastern district of San Juan de Lurigancho and build a 250,000 m² park on the right bank of the river, to be called Río Verde (Green River), using the funds previously dedicated to the construction of a BRT line along Evitamiento.³¹⁶

Before the renegotiation, OAS had been trying to buy out homes individually or neighborhood by neighborhood, a strategy that had also been based on planned uncertainty. Residents with land titles were to be compensated with USD 200 per m² of built up area and USD 70 per m² of non-built up area.³¹⁷ Residents without land titles would get USD 5,000 for their house regardless of its size. OAS had also offered 40-m² apartments in lieu of cash. But according to interviewed leaders, offerings were being done individually and at different points in time. In response, one of the neighborhood associations hired an independent appraiser that estimated the value of land to be USD 300 per m² (Strauch, Takano, and Hordijk 2014). Under the new agreement, all residents, regardless of their legal tenure status, would be offered at least USD 40,000 for their homes. In both cases, it was the responsibility of the concessionaire to reach an agreement with the residents. The road was also rerouted to reduce the number of displacements from 1,350 to 950 homes (see **Figure 21**). In case an agreement could not be reached, the municipality had the obligation of guaranteeing the clearance of the area.³¹⁸ In Peru, eminent domain is applied through the approval of a law specific to the project. The law indicated that the public interest justifies the use of eminent

³¹⁶ This last part was made using funds previously dedicated to a BRT line, now cancelled.

³¹⁷ Yellow Line contract, article 5.42.

³¹⁸ The way to do it was through eminent domain, which in Peru needs to be approved by Congress with a specific law. A law that allowed for the use of eminent domain for 69 projects, including the Yellow Line, was passed in May 2013 (Law 30025).

domain for each specific case.³¹⁹ In 2013, Congress approved an eminent domain law for several infrastructure projects, including the Yellow Line.³²⁰ Often, laws such as these are not executed, as it could take longer, but used as leverage in the process of negotiation with land owners. This was the case in the Yellow Line, except for a few homes expropriated north of the river, that is, outside MIRR. All in all, conditions were improved for the neighborhoods, and the project still went through.



Figure 21. Original and modified route of the Yellow Line. Left: original route through Dos de Mayo and Primero de Mayo. Right: route after the renegotiation (2011). The original route would have required the eviction of all homes in the red area. Source: Lamsac.

The rhetoric used by Villarán when presenting the new project was very different from the one used by the previous mayor. Instead of the government promoting private investment to move the city towards development, the focus was on the search for the public interest and on the role of the state in mediating between private capital and constituents: ‘We have managed to strike a balance between the public interest, the demands of those affected, the requirements of investors, the comprehensive development of the city and the recovery of

³¹⁹ Ley 27117, Ley General de Expropiaciones.

³²⁰ Ley 30025.

depressed areas. We have a better project for all.’³²¹ Like the neighborhood leaders that wanted to portray themselves as not being against development, Villarán also wanted to clear herself from accusations of being an ‘anti-private investment’ leftist, as the press had depicted her in the electoral campaign the previous year. The renegotiation, then, was not about taking sides with those that protested, but about striking a balance between different interests.

In fact, it is highly likely that the project would have been stalled had the renegotiation not taken place. For Gustavo Guerra García, who did not participate in the renegotiation process and entered the administration later on, the project should have been cancelled or at least renegotiated in better terms for the municipality. According to him,

OAS won with the renegotiation. In what sense? In that you could have played a card saying that the project was not viable because, sure, at a price of USD 5,000 per home it would have been impossible to do the physical-legal clear up³²² of the Margen Izquierda del Río Rímac. And the proof for this is that when they hired Cofopri³²³ to execute the physical-legal clear up, Cofopri sent a memo that says that the violence and almost civil war scenario that doing that could generate made the project impossible to carry out.³²⁴

After the changes to the project were announced, contestation in the MIRR was sharply reduced. In contrast with the previous administration, Villarán's government established local offices to inform neighbors about the new relocation proposal. Furthermore, OAS/Invepar started intervening more directly in the neighborhoods by building basic infrastructure such as schools and sports fields. One of the main local organizations,

³²¹ Press release. Original in Spanish: ‘Se ha logrado balancear el interés público, las demandas de los afectados, los requerimientos de los inversionistas, el desarrollo integral de la ciudad y la recuperación de sus áreas deprimidas.’

³²² ‘Saneamiento físico y legal’ is a term used in Perú that refers to the process by which an area occupied by certain uses is cleared up for a project using that land.

³²³ Cofopri, the Agency for the Formalization of Informal Property, is a government body in charge of giving land titles.

³²⁴ Interview #19, with Gustavo Guerra García (5/22/2017).

Asovecmirr, stopped protesting against the project. In contrast, another local organization, Ademirr, whose leaders did not get along with Asovecmirr, continued the protests, together with residents of another neighborhood called Huascarán, just across the river from Primero de Mayo, who would now be affected. However, these protests were not as frequent or crowded as the ones before the changes in the project. All in all, the conflict in the MIRR largely subsided after the renegotiation. Or at least they were not seen as a threat by the corporation and the municipality any more. The project became viable.

The case of the MIRR shows two issues that have come with privately-financed infrastructure. First, as argued in chapter 3, were private finance not available, the project would likely not have been built at all. The municipality did not have the financial capabilities to fund a USD 570 million project. The highway was not considered in road plans that were in force when it was initially proposed either. Second, the secrecy around the project both allowed it to be approved without protest, and triggered the protests that ended up with a renegotiation that changed it. The ability to hide information from the public is inherent to the PPP scheme as it is designed to work in Peru. Public procurement projects require a much higher level of information disclosure that would have, in this case, allowed residents of the MIRR to organize before financial commitments were made.

5.3. ‘Toma el Bypass’

The modified project, however, brought new threats of displacement. *Rímac Park Way* now included *Río Verde* (Green River), a park in an area that since the 1980s had been conceived by city planners as an ideal place for a green open space. The area is Cantagallo, a landfill just across the river from downtown Lima, in the district of Rímac. Augusto Ortiz de Zevallos, a close advisor to Villarán and one of the original promoters of the idea, became the

park's lead architect after the Villarán administration's renegotiation with OAS in 2011 included the first budgeted proposal to build it.³²⁵

By 2011, however, the area was no longer an uninhabited landfill. During the 1990s, parts of Cantagallo began to be populated through land squattings. Among them were people from the Shipibo-Konibo indigenous group, who are originally from the Amazon region (Bariola 2014). In 2000, several Shipibo families arrived in Lima along with people from all around the country to participate in a massive demonstration against Alberto Fujimori's dictatorship. While most people returned to their home towns, the Shipibo-Konibo joined their peers that had already established themselves in Cantagallo. In 2011, there were more than 200 families living there. As in the case of the MIRR residents, the Shipibo-Konibo were not central to the park project.

With only a few decades in Lima, and being part of an indigenous group largely discriminated against throughout Peruvian history, the tools the Shipibo-Konibo had to fight displacement appeared to be limited. However, according to an international convention on indigenous and tribal peoples subscribed by Peru,³²⁶ they are a protected class. Because the Shipibo-Konibo living in Cantagallo maintain their indigenous identity, their language, their art and local knowledge, they are still considered an indigenous group protected by International Labour Organization's Convention 169 (Urrutia Villanueva 2014). Thus, they were protected by international law.

After the project had already been renegotiated, the municipal government realized the trouble it could get into by not following the convention, and in May 2013 started a process of negotiation and consultation with the Shipibo-Konibo.³²⁷ By April 2014 they

³²⁵ <https://larepublica.pe/sociedad/867794-el-rio-verde-que-4-gestiones-ediles-trabajaron-y-que-castaneda-niega> (accessed 9/4/2018).

³²⁶ ILO-convention 169.

³²⁷ Resolución de Alcaldía 124-2013-MML (5/16/2013).

reached an agreement: the municipality committed to get Lamsac to build a new housing complex with characteristics to be defined through a participatory process.³²⁸ The agreement with Lamsac, however, was never reached. By late 2014, Villarán had lost her reelection bid against Castañeda. Before Castañeda took power, one of his aides, Giselle Zegarra, who had participated in the initial negotiation of the Yellow Line back in 2009, asked a representative at OAS, Leo Pinheiro, not to sign the agreement that contained the details of the Green River project, including the relocation plan. These conversations were revealed by a journalistic investigation in published in October 2016.³²⁹

Castañeda's return to power in January 2015, then, meant that the Shipibo-Konibo were threatened with eviction once again. After less than three months in power, he announced that the Green River project would be canceled and the resources would be directed instead to convert a heavily used at-grade intersection just south of downtown into a grade-separated one through the construction of an underpass.³³⁰ With the highway works already under way in the area, the space the Shipibo-Konibo were able to occupy had already been reduced, and nearby water and sanitation infrastructure had been damaged, flooding the community with waste water (Urrutia Villanueva 2015). Meanwhile, relocation plans were scrapped. After announcing the change, Jaime Villafuerte, manager of GPIIP, said that they needed to use the resources provided by the concession to build infrastructure that would relieve congestion 'rather than benefiting a few families that are occupying a landfill,' referring to the people living in Cantagallo.³³¹ The underpass would be located in the

³²⁸ Minutes from the sixth meeting of the working group between the municipality and the Shipibo-Konibo community (4/24/2014). More information at <https://redaccion.lamula.pe/2015/04/22/3-documentos-demuestran-que-la-reubicacion-de-la-comunidad-shipiba-siempre-fue-prioridad/ecabral/> (accessed 6/4/2019).

³²⁹ <https://idl-reporteros.pe/el-champagne-que-no-se-descorcho/> (accessed 10/12/2018).

³³⁰ <https://www.americatv.com.pe/noticias/actualidad/bypass-28-julio-se-financiara-presupuesto-anulado-proyecto-rio-verde-n174447> (accessed 10/12/2018).

³³¹ <https://elcomercio.pe/lima/anulan-rio-verde-financiar-by-pass-28-julio-344560> (accessed 10/3/2018).

intersection between avenues Arequipa and 28 de Julio, just south of the Historic Center, and would be known as *Bypass 28 de Julio*, or 28 de Julio Underpass.³³²

The construction of the underpass was controversial from the outset. Less than two weeks after its announcement, works began and were rapidly questioned by the ministry of Finance and the Office of the Comptroller.³³³ The Shibipo-Konibo community demanded the establishment of channels for dialogue with the municipality. At first, the municipality agreed, but by late April it had already stopped providing information. In response, the Ombudsman's office stepped in and sent a memo to the municipality demanding information.³³⁴ But the most visible contestation came from street protests. Right after its construction started, activists demonstrated in the area.³³⁵ In the following days architecture students and young activists organized to occupy a nearby road. On April 13th 2015, a group of about ten people set up tents on a sidewalk adjacent to the area the underpass would be built. They slept that night in the area, and the following day in the morning they began receiving press coverage. They slept in the same place for another night, but the day after police evicted them. After that, they move their tents to nearby Plaza Bélgica, also adjacent to the intersection.

A few days after the initial occupation, hundreds of protestors marched downtown to demonstrate against the underpass and Castañeda's administration.³³⁶ Meanwhile, the occupation grew in numbers and diversity. More architecture students joined in, as well as local residents. Some of the residents supported the occupiers by providing them with food.

³³² The term bypass (or in its Spanish form, *baipás*), originally used in Lima to designate proposed ring roads, was later applied to the grade-separated intersections those ring roads would have. Currently, bypass refers to any grade-separated intersection.

³³³ <https://elcomercio.pe/lima/by-pass-28-julio-desvios-permanentes-inician-lunes-348753> (accessed 10/12/2018).

³³⁴ <http://www.justiciaviva.org.pe/especiales/konibo.php> (accessed 10/11/2018).

³³⁵ <https://elcomercio.pe/lima/protestan-construccion-by-pass-28-julio-349381> (accessed 10/12/2018).

³³⁶ <https://elcomercio.pe/lima/protesta-castaneda-obras-by-pass-28-julio-353063> (accessed 9/25/2018).

More activists also came. Some of them had participated a few months earlier in protests against a proposal to cut labor rights for young people allegedly as a way of promoting youth employment. Young Limeños had organized the protest spatially, in groups that would be identified as *Las Zonas* (The Zones), one for each of the fourteen areas in which the groups had divided Lima.³³⁷ The protest against that law had been innovative in that it targeted the largest business guild, Confiep, located in San Isidro's financial district, rather than just focusing on centers of political power in downtown, like most protests in Lima do. Protesters also blocked a major urban highway, Vía Expresa del Paseo de la República, in the financial district.³³⁸ Thus, they reconfigured the spaces of the city that were deemed as sites for protest, and shifted the focus from the state to corporations.

Even when the immediate goals of radical activists and architecture students were similar, that is, to block the construction of the underpass, it became clear that there were differences in styles and long-term objectives between them. Architects wanted to preserve the image of a 'clean' protest.³³⁹ Some of them understood their protest to be based on technical rather than political grounds. They had several very specific reasons for protesting, most of them based on technical arguments about urban mobility and space. But those technical arguments were merely framing and complementing a political claim: the fight against a status quo that prioritized automobility.

The people from *Las Zonas* and anarchists went beyond trying to redefine public space, and sought to link the protest against the underpass with other social struggles going on in the country at the moment. Some activists used the space created by the protest to

³³⁷ <https://redaccion.lamula.pe/2015/01/15/mapa-de-lima-anti-pulpin/tecabrera/> (accessed 9/5/2018).
<https://larepublica.pe/politica/852765-como-se-organizaron-los-movimientos-juveniles-que-acabaron-con-la-ley-pulpin> (accessed 9/5/2018).

³³⁸ <https://larepublica.pe/politica/843001-regimen-laboral-juvenil-mas-de-10-mil-personas-se-sumaron-a-protestas-video-y-fotos> (accessed 9/5/2018).

³³⁹ Interview #7, with a recently graduated architect who participated in the protests (5/27/2016).

inform about other issues such as ongoing protests against mining in other regions. Some of the architecture students saw this as something that could limit the power of the specific issue they were fighting for.³⁴⁰ But there was a particular struggle that was directly linked to the fight against the underpass: the threat of displacement in Cantagallo. Shipibo-Konibos were invited to participate in the occupation. They visited to share information about their struggle.

During the months the occupation lasted, activists carried out open assemblies and invited scholars to discuss why the underpass was a bad idea. They also walked around downtown to talk to people and inform them about the underpass and explain its negative impacts. They critiqued the municipal government for trying to build infrastructure without having proper technical reports approved, for prioritizing automobile-oriented infrastructure, for interrupting a bicycle path that ran along Arequipa Avenue's median, for redirecting funds that were supposed to be used for a better project, for affecting the Shipibo-Konibo community, and for cutting trees and reducing green open space. Although they reached out to people that lived in the nearby area, most people occupying the plaza were from other parts of the city. Thus, their claims to the area were beyond the immediate concerns about the transformations of their lived experience in that space. Instead, they pitted their normative vision of what the city should be with that of the mayor. While there were relatively successful calls to include the Cantagallo struggle, the claims against the underpass were different from those of the Shipibo-Konibo or the residents of the MIRR. Rather than framing their claims in the right to housing or place of living, the discourse was based on contrasting visions of public space and mobility.

Protestors could not prevent the construction of the underpass. Formal complaints could not stop its construction either. Ministry of Finance Alonso Segura declared that any

³⁴⁰ Interview #7 (5/27/2016).

changes to the PPP project, including the underpass, must go through his office. The municipality initially opposed him, but later gave in. But the opposition from the ministry of Finance did not fundamentally challenge its construction. Segura was concerned that the change would stop the concession from being self-financed by requiring the municipality to maintain the new road.³⁴¹ In response, maintenance expenses were included in the concession.

The Office of the Comptroller also started investigating the deal.³⁴² According to it and to the Ombudsman's Office, the underpass was built using incomplete technical studies.³⁴³ The legality of the underpass remains questioned, even if it is not clear who should have stopped it. Some legal experts have explained to me that Castañeda exploited a legal vacuum that allowed him to replace the park with the underpass by changing the contents of the technical record rather than approving an entirely new document. A legal advisor to the municipality told the press that the contract had not been modified. Instead, they had 'only redefined a component, establishing a new priority.' It is obvious, however, that the project had been fundamentally modified, even if the change was not inscribed in a legal document: the underpass was not included in the contract, while the park was, via an addendum. According to some legal experts the underpass goes against the essence of the original project, as it is in another place and serves a different function. But the same could be said of the change to include the park. It would have been adjacent to the highway, but is in essence different from a road and a BRT line. What legitimized that change was that it was inscribed in an addendum. In the end, while the Office of the Comptroller found serious irregularities,

³⁴¹ Interview #28, with Alonso Segura (1/25/2018).

³⁴² <https://elcomercio.pe/lima/contraloria-investiga-construccion-by-pass-28-julio-350071> (accessed 10/12/2018).

³⁴³ <https://larepublica.pe/sociedad/765891-defensoria-del-pueblo-dice-que-pass-de-28-de-julio-se-hizo-sin-estudios-tecnicos> (accessed 9/25/2018).

including the violation of the PPP normative,³⁴⁴ the underpass was built anyway, with massive cost overruns³⁴⁵ but without legal consequences for now.

But the claims against the underpass did have consequences. The initial plans to relocate residents of Cantagallo to a housing complex in San Juan de Lurigancho were scrapped. In the early morning of November 4th 2016, hundreds of homes were burned in a fire under circumstances that remain unclear.³⁴⁶ By 6 am, the municipality of Lima had set up tents in a nearby area to accommodate residents. But most people initially did not move there because they suspected that if they did so they would not be allowed again into Cantagallo.³⁴⁷ The news story attracted the attention of the mainstream media and the national government stepped in to look for solutions. After talks between municipal governments of Lima and Rímac, the national government, and Cantagallo residents, a plan was set up for the national government to lead the construction of a new housing complex adjacent to the burned area.³⁴⁸

The protests against the underpass also revealed the newfound contentious nature of building automobile-oriented infrastructure. Public works that were very similar to the 28 de Julio underpass had been being routinely built in Lima without major setbacks. At most, people immediately affected, such as local neighbors, would protest. But those protests would receive very limited press coverage and were seldom seen as a threat to their construction. This case was very different: it got the attention not only of the press, who would constantly

³⁴⁴ <http://idehpucp.pucp.edu.pe/revista-memoria/reportaje/adendas-bajo-la-lupa/> (accessed 10/12/2018).

³⁴⁵ <https://idl-reporteros.pe/bypaseo-de-sobrecostos/> (accessed 9/25/2018).

³⁴⁶ <https://larepublica.pe/sociedad/818300-incendio-en-comunidad-de-cantagallo-deja-decenas-de-familias-damnificadas> (accessed 2/6/2019).

³⁴⁷ Report by the municipality of Rimac. Available at

http://www.congreso.gob.pe/Docs/comisiones2016/PueblosAndinosEcologia/files/caso_emergencia_en_cantagallo.pdf (accessed 10/12/2018).

³⁴⁸ <https://larepublica.pe/sociedad/818300-incendio-en-comunidad-de-cantagallo-deja-decenas-de-familias-damnificadas> (accessed 10/12/2018).

<https://larepublica.pe/sociedad/867778-municipalidad-de-lima-aprobo-proyecto-de-viviendas-en-cantagallo> (accessed 10/12/2018).

<https://elperuano.pe/noticia-iniciaran-construccion-de-viviendas-cantagallo-58310.aspx> (accessed 10/12/2018).

<https://elperuano.pe/noticia-cantagallo-sera-ciudad-modelo-60705.aspx> (accessed 10/12/2018).

cover the occupation and the protest marches that came from it, but of the national government and anti-corruption agencies. The perceived arbitrariness of the project contributed to the rage against it. And that arbitrariness was brought by its financing mode: the PPP scheme allowed the local government to move around funds provided it got the approval of the consortium in charge of the project. As long as the project remained ‘self-financed’, most controls usually applied to public works could be bypassed. The circumstances under which the negotiation between the municipality and Lamsac to redirect funds to the underpass are not entirely clear.

The protests also revitalized an architecture students association, UDEAL,³⁴⁹ which had been founded some years before but had not been not very active. In the following months, UDEAL sought to have a say in the way Lima was being planned. In May 2015 they organized a march called *Marcha por una Lima Planificada*, or March for a Planned Lima. For them, interventions such as the underpass, which was proposed after several renegotiation rounds of a project that was not planned in the first place, was one of many signs that Lima was not being planned. Rather, it was left to piecemeal interventions that did not conform to a plan but to fleeting interests of politicians or private corporations. UDEAL is now a very active organization that seeks to be engaged with ongoing discussions about urban planning and policy in Lima. In July 21, along with other urban organizations, they organized another march, this time for the *right to the city*.³⁵⁰ And during the 2018 electoral campaign, they organized open assemblies to discuss the future of the city and, along with other organizations, a debate between candidates at the National University of Engineering (UNI).

³⁴⁹ Unión de Estudiantes de Arquitectura de Lima, or Lima Architecture Students Association.

³⁵⁰ <http://www.hic-gs.org/news.php?pid=7153> (accessed 5/23/2019).

5.4. 'No to the Toll'

The New Roads of Lima project was also met with protests. In the morning of January 5th, 2017, hundreds of protestors from northern Lima blocked traffic in a section of the North Pan-American Highway, 18 km north of downtown, to protest against the introduction of a new toll and the rise in the fares of the existing toll at the Chillón River.³⁵¹ Later in the day, protests turned violent, and by the afternoon the new toll booths had been set on fire. What had got people so angry about the toll?

The new charges were part of the concession won by Odebrecht and administered by its special purpose vehicle *Rutas de Lima (RdL)*. Odebrecht had already been proven to engage in corrupt deals for which its global CEO, Marcelo Odebrecht, had been convicted in Brazil in 2016.³⁵² The company was also under investigation in Peru, and in December 2016 Marcelo Odebrecht declared that he had bribed Peruvian authorities in order to win contracts.³⁵³

Before the Pan-American Highway was transferred to RdL, tolls at the Chillón river booth were charged in one direction only, north-south. As soon as the concession started, the fare of that toll was raised along and another similarly-priced new toll was introduced in the opposite direction. According to the contract, the installation of the new toll booths should have followed the completion of four interchanges in the North Pan-American Highway, all located south of the tolls. But under circumstances that remain unclear, the municipality of Lima allowed the concessionaire to install the new toll booths after only three of the four interchanges were completed. The fourth one was simply scrapped without giving any

³⁵¹ <https://gestion.pe/tu-dinero/hoy-suben-peajes-sur-norte-lima-s-0-50-s-1-149707> and <https://larepublica.pe/sociedad/1004816-malestar-por-peajes-en-puente-piedra-desata-una-violenta-protesta> (both accessed 10/1/2018).

³⁵² <https://www.reuters.com/article/us-brazil-corruption-odebrecht-idUSKCN0WA1X8> (accessed 9/10/2018).

³⁵³ <https://larepublica.pe/politica/832584-odebrecht-pago-sobornos-en-el-peru-por-29-millones-de-dolares> (accessed 9/10/2018).

explanations to the public at the time. Almost a year later, a representative from Rutas de Lima declared that Mayor Castañeda had asked them to replace the fourth interchange with two interchanges in the South Pan-American Highway along with some minor works.³⁵⁴ But those two interchanges had not been completed by January 2017 either. Thus, with only three of four interchanges on the North Pan-American Highway completed, Rutas de Lima installed the new toll booths on December 29th, 2016. Some of the experts I interviewed suspect that the removal of the fourth interchange was part of a corrupt deal to allow Odebrecht, which was in the midst of a corruption scandal that had its accounts frozen, to sell the concession at a profit. In June 2016, Odebrecht had sold 57% of its USD 498 million-worth concession for around USD 425 million.³⁵⁵ According to the Office of the Comptroller, by allowing the concessionaire to raise fares without completing the mandatory works stipulated in the contract, the municipality let it earn excess profits of around USD 305,000 per month, or a total of USD 1.5 million up to May 31st 2017.³⁵⁶

Before tolls were transferred to the concessionaire, the fare was PEN 2.00 for transit, PEN 2.50 for private cars, and PEN 1.50 for freight (under public provision, fares were tax exempted). Right after the concession began in 2013, they were raised to 2.50, 3.00 and 1.50 per axis respectively, including tax.³⁵⁷ By January 2017, the fares had already been raised to PEN 4.50 for transit units, 5.00 for cars and 4.50 per axis for freight, all including tax.³⁵⁸ Taking into account the new toll booths that effectively doubled those fares, the increase was 350% for transit, 300% for cars and at least 1100% for freight (and above that for trucks with

³⁵⁴ <https://elcomercio.pe/lima/sucesos/peaje-chillon-opciones-planteadas-rutas-lima-noticia-481764> (accessed 10/12/2018).

³⁵⁵ <https://lavca.org/2016/06/27/odebrecht-sells-57-stake-rutas-de-lima-brookfield-estimated-r1-3b-r1-5b-em-portugues/> (accessed 10/1/2018)

³⁵⁶ Contraloría (2018), Informe de Auditoría N°309-2018-CG/MPROY-AC: “Ejecución del Contrato de Concesión del Proyecto Vías Nuevas de Lima”

³⁵⁷ <https://larepublica.pe/sociedad/722179-caos-y-malestar-tras-alza-de-peajes-en-la-panamericana-norte-y-sur-en-lima> and <https://revistacontacto.wordpress.com/2013/10/25/1553/> (accessed 2/6/2019).

³⁵⁸ Sales tax in Peru is 18%. In January 2017, the exchange rate was USD 1 = PEN 3.33.

more than two axles) in less than four years. The January protest that ended with the toll booths set on fire was not the first one held in Puente Piedra. In June 2016, protestors had also responded to a previous increase in toll fares by blocking the North Pan-American Highway.³⁵⁹

For people that live north of the Chillón River, particularly in that area of the Puente Piedra district, the Pan-American Highway is the only way of getting to most places in Lima (see **Figure 22**). There are no reasonable alternative routes, and even getting to some parts within Puente Piedra would have required to pay a toll. For instance, to drive a car from Shangri-La, a neighborhood within Puente Piedra district, to downtown Puente Piedra, a 6km-drive, one would have to pay a USD 1.50 toll each way, compared to a \$.75 toll one way before the new toll booths were installed: the fare had quadrupled for a stretch of road that received almost zero investment. The concession did not include any major improvements to the Pan-American Highway in Puente Piedra. The vast majority of the investment was destined to extend a highway to the east of Lima, along with some localized interventions in the other parts of the Pan-American Highway. It should be noted that most residents of Puente Piedra do not drive a car. In 2017, only 12% of households in the district had one. But not only was the minority that did drive affected. As tolls were increased for transit too, the raise translated into higher bus fares, which are not regulated.

Right after the January 5th protest, Mayor Castañeda declared to the press that because there was a contract he could not do anything about the raise. But the scenario changed in the following days. Protests continued, while President Pedro Pablo Kuczynski said that he was listening to protestors and would convince Mayor Castañeda to solve the issue.³⁶⁰ Castañeda

³⁵⁹ <https://peru21.pe/lima/rutas-lima-justifico-alza-precio-peaje-panamericana-norte-fotos-video-226457> (accessed 1/10/2018)

³⁶⁰ <https://elcomercio.pe/lima/kuczynski-anuncio-ocupara-peaje-puente-piedra-157689> (accessed 10/12/2018).

responded again declaring that he could not go against the contract. But in the following days, as protests kept going, Castañeda established a participatory channel with leaders from northern Lima. Less than a week after the protest, he declared a 30-day suspension of the new toll booths.³⁶¹ The existing toll booths would continue to charge the already raised fares. Groups mobilizing against the toll were not satisfied with the suspension, and instead demanded the permanent closure of the new toll booths. Protests kept going.³⁶² On January 18th, during celebrations for the city's anniversary, Castañeda announced that the tolls would be scrapped.³⁶³ In formal terms, meanwhile, the municipality announced that it would renegotiate the contract.³⁶⁴ But by the 30th day, after not reaching an agreement, the suspension was extended for another 30 days.³⁶⁵ Leaders remained uneasy, but as of early 2019 the new toll booths are not operating, although fares have kept increasing.³⁶⁶ In November 2018 tolls were raised to PEN 5.50 for all types of vehicles.³⁶⁷

³⁶¹ <https://larepublica.pe/sociedad/1006587-suspenden-por-30-dias-el-cobro-de-peaje-en-puente-piedra> (accessed 10/1/2018) <https://gestion.pe/peru/politica/municipalidad-lima-suspendio-cobro-peajes-puente-piedra-126422> (accessed 10/12/2018).

³⁶² <https://exitosanoticias.pe/puente-piedra-vocero-de-movilize-ya-acusa-abuso-policial-contra-manifestantes/> and <https://peru21.pe/lima/puente-piedra-colectivo-insiste-marchar-peaje-62583> (accessed 10/1/2018)

³⁶³ <https://gestion.pe/economia/luis-castaneda-peaje-puente-piedra-126844> (accessed 10/12/2018).

³⁶⁴ <https://peru21.pe/lima/renegociaran-contrato-peaje-puente-piedra-62682> (accessed 10/12/2018).

³⁶⁵ <https://peru21.pe/lima/peaje-puente-piedra-municipalidad-lima-amplia-suspension-30-dias-66121> (accessed 10/12/2018).

³⁶⁶ <https://elcomercio.pe/lima/sucesos/peaje-puente-piedra-imagenes-violencia-fotos-noticia-481841> (accessed 10/12/2018).

³⁶⁷ <https://elcomercio.pe/lima/transporte/rutas-lima-manana-incrementara-costos-peaje-s-5-50-noticia-579167> (Accessed 5/23/2019).

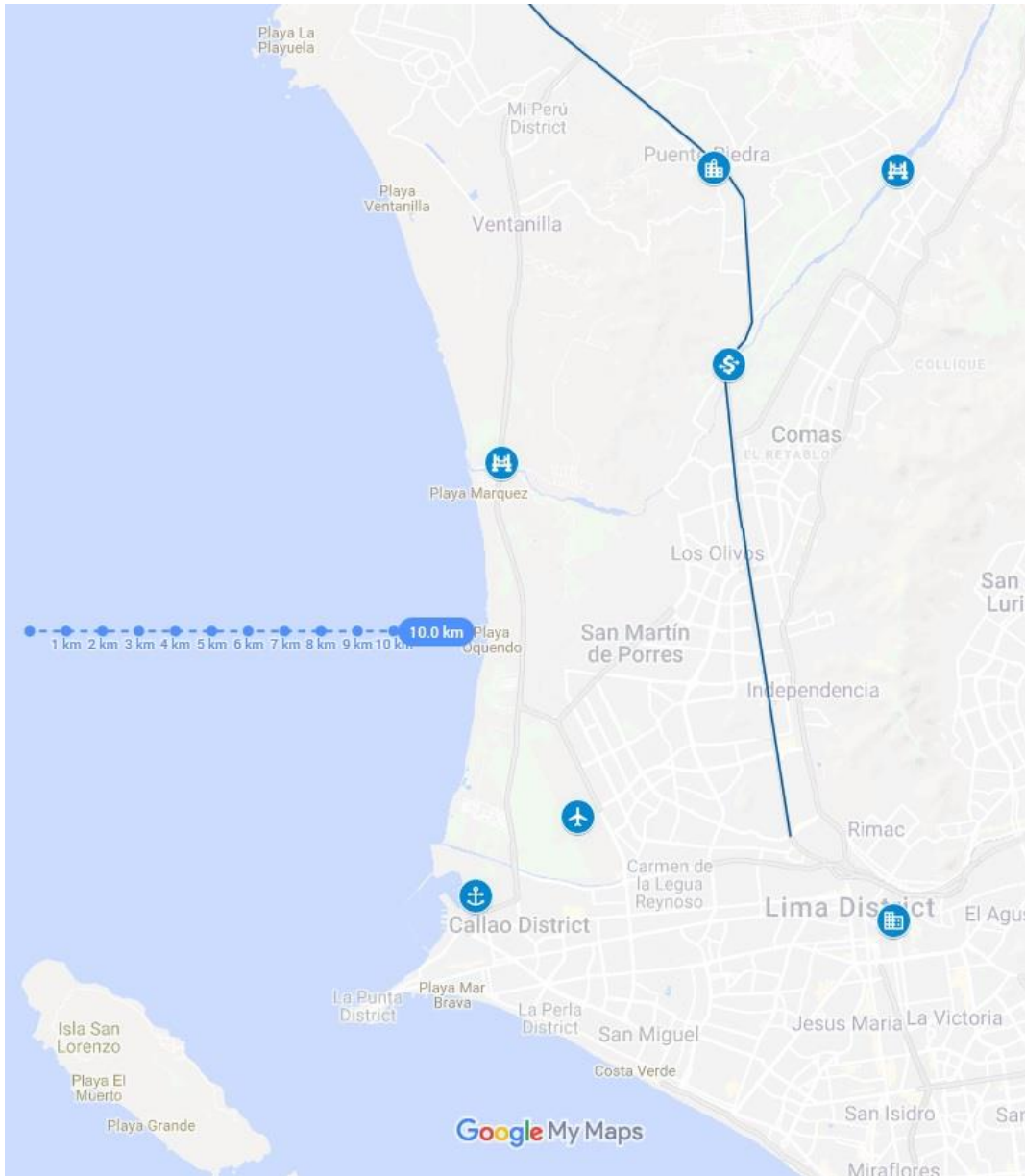


Figure 22. Map showing northern section of New Roads of Lima. The blue line is the section of the Northern Pan-American Highway given in concession under the New Roads of Lima PPP. Markers: downtown Puente Piedra, the location of the toll booths (dollar sign), the two bridges across the Chillón River closest to the highway, the airport, the port, and downtown Lima.

The circumstances that allowed for the suspension were never clear. There were no signed documents available to the public, and neither the municipality nor the concessionaire said anything about an agreement between them to stop charging tolls. By June, the

municipality announced that the toll booths would be removed and the new toll cancelled.³⁶⁸ According to the municipality, they were still negotiating a way to compensate the concessionaire for the unearned income.³⁶⁹ As of February 2019, if there is an agreement, its terms are not public.

In April 2017, I interviewed Francisco Bocángel, a local journalist and activist, in Puente Piedra.³⁷⁰ His main concern was that the way the project had been implemented reproduced the historical neglect of the districts north of the Chillón River. While he told me that he did not approve of the violence shown during the protest, he also mentioned that the government would only listen to demands from the people of Puente Piedra when they take to the streets. The protests earlier that year and the response by the government was yet another example of that. To make his point, Bocángel reflected on the history of public investments along the Pan-American Highway. He recalls that, in the 1960s, several bridges were built in the South Pan-American Highway, while the North Pan-American Highway received little investment.³⁷¹ He linked the differences with the income disparity between northern and southern Lima. The fact that a new interchange in the North Pan-American Highway was apparently scrapped and replaced for two other investments in the South Pan-American Highway further proves his point.³⁷²

Bocángel also detailed recent conflicts regarding road design in the entrance to Puente Piedra. Downtown Puente Piedra sits on the west side of the highway, while the east side is mostly industrial. Bocángel told me that flaws in road design explain part of the congestion

³⁶⁸ <https://larepublica.pe/sociedad/881681-puente-piedra-municipalidad-de-lima-confirma-retiro-de-casetas-de-peaje-chillon-ante-marcha> (accessed 10/12/2018).

³⁶⁹ <https://www.americatv.com.pe/noticias/actualidad/municipalidad-lima-reafirma-que-peaje-puente-piedra-no-va-mas-n278612> (accessed 10/12/2018).

³⁷⁰ Interview #17, with Francisco Bocángel (4/25/2017).

³⁷¹ The history of transportation infrastructure investments in Lima is developed in length in chapter 2.

³⁷² The South Pan-American Highway connects Lima with most of the beaches frequented by middle- and upper-class Limeños, who also live mostly south of downtown. There are far fewer elite beaches to the north.

produced by trucks turning from and into the highway, as well as traffic turning from the highway into downtown Puente Piedra. He also pointed out that road design makes those intersections particularly dangerous. In fact, according to the Ministry of Health, during the first half of 2018 Puente Piedra was the district in Lima with the second highest number of people injured in traffic collisions, despite being the ninth district by population and not a major employment center.³⁷³ Besides noting the issues that make these intersections congested and dangerous, Bocángel mentioned that several calls by local leaders to propose alternative designs were only attended when people actually took to the streets to protest. After a cycle of protests, during his first term (2003-2006) Mayor Castañeda agreed to build an interchange in the entrance to Puente Piedra. In 2003, he announced its construction through a regular procurement process. But it was only completed in 2005, more than a year after leaders denounced that the project was stalled, because of which they organized a march in January 2004.³⁷⁴

Paying for new and higher tolls, then, was not the only concern for the people of Puente Piedra. The type of infrastructure investments that the area was receiving was also a contentious issue. Before the Vías Nuevas de Lima project, it was dangerous to walk across the highway but people could do it anyway. The highway worked as a semi-fluid, albeit risky, barrier between two areas. People did their daily tasks on either side, and for that they needed to walk across it. But as part of the project, barriers preventing people from crossing the highway would be installed. They protected people from trying to cross in a dangerous area, but also split Puente Piedra in two. Because traffic deaths were relatively common but people still needed to cross the highway, residents had routinely organized protests demanding the

³⁷³ 560 people, or 11.25% of Lima's total, were injured in Puente Piedra during that period. Around 4% of Limeños live in Puente Piedra. <http://www.dge.gob.pe/portal/docs/vigilancia/sala/2018/SE27/transito.pdf> (accessed 10/2/2018)

³⁷⁴ <https://larepublica.pe/sociedad/310500-nuevo-by-pass-de-puente-piedra-acaba-con-congestion-vehicular> (accessed 10/12/2018).

installation of traffic lights or pedestrian overpasses. In August 2014, protestors blocked the Pan-American Highway in the intersection with Av. Famesa in Puente Piedra after a 60-year old lady died after being struck by a vehicle. According to a lady quoted in a news report, ‘people are constantly being ran over in this area.’ Another protestor declared that ‘we are going to keep blocking the road like this until we are heard. We don’t want to reach larger consequences because things are going to get worse. Kids and elderly people are afraid of crossing the North Pan-American through this area. All of us are at risk.’³⁷⁵ In the interview, Bocángel pointed to this intersection as being particularly dangerous. The New Roads of Lima contract only considered the addition of one pedestrian overpass to the fourteen that already existed in the 11.2km-long stretch of road that included downtown Puente Piedra. Following rounds of protests and negotiations, three other overpasses were included in the project.

According to a former official who did outreach for GPIIP, issues that affect the neighborhoods the highways go through are usually only taken into account after the project is approved. Doing so in an early phase would ‘open an unnecessary political front’ that would delay the approval and implementation of the project. They approve first, and deal with discontent later. This logic resembles what Enrique Silva has called ‘deliberate improvisation,’ or to plan without a plan (Silva 2011). Initially, the project is approved in order to speed it up, and any issues that could prevent it from being done in a quick and low cost way are dealt with during the implementation phase. All of those issues, the former official also mentioned, are inserted from a financial and time-saving logic: the way of dealing with them is by finding the solution that carries less delays and extra costs.³⁷⁶ Sometimes the changes are incorporated in addenda that reflect formal renegotiations, and

³⁷⁵ <https://elcomercio.pe/lima/vecinos-bloquean-panamericana-norte-exigen-puentes-peatonales-356284> (accessed 10/2/2018).

³⁷⁶ Interview #29 (6/6/2018).

sometimes they are dealt with directly by the concessionaire. In fact, it is often in its best interest to calm down protests that could delay the project. Furthermore, the municipal government often prefers not to get involved because doing so could carry political costs.³⁷⁷ Participation, then, is subjected to calculative practices, both by the municipal government and corporations. These practices have the objective of appeasing protests and preventing the transformation of social costs into financial costs.

Protests in Puente Piedra were driven along two lines. First, at a metropolitan scale, by the sense that the people of Puente Piedra and, by extension, all the area north of the Chillón River, were victims of spatially unjust investment decisions. They would have to pay, even for local trips, for public works that were carried out in areas that were far from where they lived, and would not benefit them. Those new charges limited their access to the city, since travelling to downtown Lima would be, for some, prohibitively expensive. The other claim was more local, and had to do with traffic safety. Protests demanding the installation of pieces of infrastructure locals had been requesting for years prove the continuous neglect that the design of PPP projects have for the areas they go through. Despite being known by anybody who was familiar with daily life in Puente Piedra, these demands were only considered after the project had been approved, and in response to street protests.

5.5. Conclusions

The two projects addressed in this chapter have been contested for a variety of reasons that were not fully considered when planning them. The first phase of protests against the Yellow Line revealed that deciding where and what to build based on financial criteria reproduces inequality at the metropolitan level. As some of the local leaders contended, the

³⁷⁷ Interview #9 (6/14/2016).

decision to build through a low-income neighborhood rather than through middle-class neighborhoods could well be related to the fact that it is cheaper to displace them, both politically and financially. The fact that one of the proposals raised by these leaders as an alternative to how the project had been designed was to continue the tunnel below their neighborhoods points to the same issue: it was considered reasonable to build a 2km-long tunnel in order to preserve the Historic Center, but no attention had been given to how the on-level highway would affect them. As mentioned above, Mayor Castañeda and the broadcaster that interviewed him did not even think it was worth saying anything about that, even when the video they displayed on live TV clearly showed space magically transforming from houses into a highway. Residents of the MIRR, in contrast, were very conscious of the consequences of the project, and the way of making these known to people beyond their neighborhoods was through direct and legal actions. Furthermore, as elaborated in chapter 3, the availability of private finance was necessary to build the Yellow Line. Had the local government not been able to use private finance to bring 30 years of future revenues into the present, the project, which did not appear in any urban plan in force at the time, would have been most likely not even considered.

This episode reveals a further issue. For a long time, there had been a consensus in Lima that prescribed that a consolidated *barriada* could not be easily evicted.³⁷⁸ While new land squattings often face immediate repression from the police, neighborhoods that grew out of old squattings are considered not to be at risk. But the Yellow Line represented a new threat to those old neighborhoods. The argument was physical risk, but the motivation was the construction of the highway. The MIRR was not the only area of Lima where homes were at physical risk in case of an earthquake or another natural disaster struck. And the original

³⁷⁸ Barriada, or pueblo joven, is the name given in Lima to irregular or informal settlements. This is explained in length in chapter 2.

version of the project was not going to remove only those homes that were at risk. In fact, while there had been talks between the municipality and local leaders to intervene on the issue, the actual intervention was planned only after a proposal to build a privately-financed highway had been approved, and largely dismissing those talks. These project, then, shows that low-income neighborhoods that occupy areas that can be monetized are potentially in danger of being evicted as private capital plays an increasingly important part in shaping infrastructure and planning decisions in Lima.

The second phase of protests against the Yellow Line project combined elements of the first phase, but with new issues. For residents of Cantagallo, the concern was similar to that of residents of the MIRR: they were fighting to stay in their place of residence or to get adequate relocation or compensation conditions. But the protests that were localized around the site of the underpass were different. Here, a group of people mobilized against the nature of a specific project: a grade-separated intersection built to facilitate automobile traffic. For them, the underpass became the symbol of a corrupt government that improvised solutions focused on improving mobility only for those who drove automobiles. Both the neglect to follow a plan and the automobile-oriented nature of the project were the focus of protests. These mobilizations moved the discussion to another sphere. In interviews, MIRR residents had questioned whether we should be building roads rather than other types of infrastructure, but their main fight was centered on their right to housing. The ‘Toma el Bypass’ protesters, in contrast, were explicitly pitting their vision of public space and mobility against that of the Mayor, which was still hegemonic in Lima. By doing so, they created a new space of contestation in Lima. In contrast with previous public works that were similar to the underpass and remained largely uncontested except for a few local residents, now investing in automobile-oriented infrastructure has become a matter of metropolitan debate. It is now common for news sources to report on protests against road widenings and interchanges and

not only on the projects themselves.³⁷⁹ Further projects to widen roads, and to build underpasses or interchanges in urban areas have been contested and, in some cases, stopped.³⁸⁰

The protests against the toll also reveal concerns with urban mobility and metropolitan inequality. Residents of Puente Piedra felt undone by a project that directed very little investment to their area but forced them to pay in order to move both within their district and into central Lima. They saw this as a corrupt deal that sought to extract money from residents of Puente Piedra as a way of both enriching corrupt public officials and private executives, and of investing in other areas of the city, with little benefit to them. The toll sharply increased the cost of moving around the city for residents of Puente Piedra. Here, the protest was framed in terms of the right to move in the city.

Anthropologist Daniel Ramírez Corzo, whom I interviewed as a former municipal official, has argued that the Puente Piedra protest against the toll, along with other protests going on in Lima at the same time, represent a fundamental change in the frame in which urban protest has historically developed in Lima. For him, in contrast to protests before 1990 that were focused on the ‘popular city’ of old *pueblos jóvenes*, we are now witnessing pluri-class protests that are transversal to the city as a whole. Now, rather than demanding the improvement of individual neighborhoods, the protests against the toll reflect a cry for the right to access urban space and services all around the metropolis, that is, Henri Lefebvre’s right to the city (Ramírez Corzo 2017).

³⁷⁹ <https://larepublica.pe/sociedad/826472-vecinos-de-jesus-maria-protestan-contraby-pass-de-avenida-salaverry>
<https://larepublica.pe/sociedad/815883-san-isidro-se-opone-construccion-de-bypass-en-avenida-salaverry>
<https://elcomercio.pe/lima/velarde-insiste-oposicion-by-pass-arequipa-aramburu-151324>
<https://peru21.pe/lima/san-isidro-vecinos-protestan-ampliacion-avenida-aramburu-382423>
<https://gestion.pe/peru/politica/miraflores-ve-serias-deficiencias-bypass-avenidas-arequipa-aramburu-139652>
(all accessed 10/9/2018)

³⁸⁰ <https://larepublica.pe/sociedad/826533-municipalidad-de-lima-retrocede-y-ya-no-construira-tres-bypass-en-av-salaverry> (accessed 10/9/2018)

Ramírez Corzo also points to another round of protests that are linked to the use of PPPs in urban areas. While the provincial government is partnering with corporations to build urban highways, at the district level PPPs are being used differently. The unsolicited bid scheme is being used to effectively privatize public space or to build underground parking complexes (Lozada Acosta 2018). In the mostly working-class districts of Comas and Independencia, on the northern part of Lima, local municipalities wanted to let corporations build malls in parks. Protests by local residents stopped them from doing so. In middle- and upper-class Miraflores, San Isidro and Lince, there are projects to build underground parking complexes with private finance. The projects have been completed in Miraflores and San Isidro, but the one in Lince, which is more recent, is still contested and its execution remains uncertain. Municipalities often argue that they need sources of revenue and conceding to these proposals is a way of getting them. In response to the encroachment of public space by private interests, as of February 2019 Congress is debating a law to prevent the use of PPPs to alienate public space.

The extensive use of public-private partnerships in Lima has sparked a new round of urban protest in response. Through the narratives of people that mobilize against these projects, hegemonic understandings of the city, of urban space and of mobility are being put into question. If initial protests represented the rebirth of old conflicts around land and housing, further protests challenge the prioritization of automobiles and the reconfiguration of urban infrastructure as conduits for capital accumulation. While people have protested against specific investments in road infrastructure in the past, this round of protests seeks to reveal how these investments, beyond affecting local neighborhoods, represent a certain way of city-building that has prioritized automobile-oriented infrastructure while favoring private investors.

Chapter 6: Conclusions

When the Yellow Line was approved in 2009, Lima began a wave of urban highway construction. The main explanation for this process is the sudden availability of financing sources allowed by the 2008 reform of the national legal framework for private investment in infrastructure. The reform was done in the midst of the global financial crisis and had the objective of attracting private investment in infrastructure, both at the national and local levels, to close the ‘infrastructure gap.’ The municipality of Lima, which until then had a relatively limited capital budget, became able to bring into the present decades of future revenue streams—provided it did so through public-private partnerships. The wide disparity between what could be done with public finance and what could be done with private finance gave the private sector considerable power in setting priorities. As a result, the profit motive became central in defining what could be done with the new financial capabilities, even though large projects still required either the transfer of public revenue streams or financial guarantees to investors.

Two issues account for the rationale followed by the municipal government in going through with these projects. The first one is the perceived need to situate Lima as a city that is attractive for foreign investors. As the councilor cited in chapter 3 said during the council debate, there was a need to ‘sow hope’ for investors, even when projects were less than perfect. After the first project was approved, the following municipal government began compiling project shortlists, which highlighted the progress the country and the city had made as investor-friendly places. The notion that the city of Lima must become competitive was key, as was the idea that, to achieve this, attracting foreign direct investment would be fundamental. This was the reflection, at the metropolitan level, of a policy designed at the national level. In both cases, bringing private capital and finance became more important than making sure doing so would bring its alleged benefits in improving infrastructure delivery.

The second issue is related to the way urban problems and solutions were conceptualized by experts, politicians and public officials, especially regarding transportation. The political issue of who has the right to public space was largely overlooked, and discussions were centered around regulatory and road capacity issues. Transportation problems, then, were depoliticized. Meanwhile, transportation-related woes became increasingly considered as one of the main concerns of the city, which let transportation drive planning priorities. The fact that these concerns were framed in terms of congestion, rather than accessibility or mobility, furthermore, made it easier to justify building highways rather than other, more equitable transportation infrastructures.

The way the PPP scheme was designed explains in large part the failures and democratic deficits that came with the planning and implementation phases of the projects. As explained in chapter 3, the way the PPP model worked for unsolicited bids was meant to exclude, rather than promote, competition. Unsurprisingly, the three proponents won their projects without competition. Instead of bringing competition and efficiency, as the mainstream economics view on PPPs and privatization would assume, the model was designed in order to disregard them. Cost-cutting, efficiency, or the competitive processes that would allegedly have brought those were not priorities. Corruption might account for some of the problems with the projects. However, it should be noted that, by establishing a direct procurement model with the veil of a competitive process, and one that allows the municipal government and private consortia to bypass regular public investment controls, the creators of the PPP model showed that they were not particularly bothered by the possibility that corrupt deals could happen.

The scheme was also designed to exclude participation and to, if deemed necessary, overlook social interest issues. As projects formally originated in the private sector, the studies justifying them and containing some of their key details were legally considered

private information. The public version of the unsolicited proposal was only a one-page document containing broad aspects. All other information, which could include critical issues such as what specific areas (homes, public space) needed to be cleared for the construction of the highways, could be legally hidden from the public. The approval of the projects would reveal some more, although not all, information. The full details would be known only to municipal officials and consortia interested in bidding. The broader public will only be aware of them after the contract was signed. Residents, then, only had two ways of participating, both after the approval. One was in assemblies that could not fundamentally change the project, but that could attend to some issues that were of concern, insofar as they did not challenge its financial aspects. The other was through ‘invented spaces’ (cf. Faranak Miraftab 2004), as they engaged in diverse ways of demonstrating their dissatisfaction, both through legal means and by taking to the streets in direct action. In one case, a protest ended with a toll booth set on fire. Furthermore, the possibility of protest was inserted in the conception of the projects through calculative practices. As contestation could have an impact on the viability of the projects, or cause delays or other nuisances, it had to be inserted into the financial model as financial risk. The contracts also included clauses making the municipality responsible for lost revenues if protestors blocked toll roads. All along the process, then, protest and, more broadly, any form of participation, has been largely subsumed through calculative practices that prioritize financial considerations.

I began this research project by following a thread from my Master’s thesis, titled *Special Regulatory Zoning and the Re-Configuration of Planning in Lima*. In it, I showed that a zoning category created in 1969 to deal with areas that needed special attention because of their physical or social characteristics was transformed under neoliberalism into a tool to attract private investment to those and other places. The main focus of the thesis was on the first of the three projects I analyze in this dissertation. Specifically, it was about the

Municipality of Lima using the flexibility allowed by Special Regulatory Zoning (SRZ) in order to facilitate the approval of the Yellow Line, a highway project that would displace people from the types of places the original proponents of the category sought to improve.

When, in the following years, other two urban highway projects were approved, this time without the need for the use of SRZ, I realized that zoning was part of a much larger issue. While transformation of SRZ reflected and reproduced changes in planning practices in the Peruvian capital, it was not necessarily at their core. Instead, I sought to understand what had led the municipal government to direct USD 1.5bn to urban highways, and what regime of governance, if any, was underway. As I have shown in this dissertation, the flexibility offered by SRZ was but one of several tools needed under a specific planning regime, which I call unplanning. Just like the Municipality of Lima could use SRZ to indicate that an area was in physical risk and thus needed to be evicted—paving the way for a highway running through there, it could also simply disregard and contradict current urban and transportation plans.

Unplanning, then, is not limited to a land use policy that is lax or biased towards private investment. As I have shown in this dissertation, it is also about readapting the state in order to allow the private sector to take the lead in planning and delivering urban infrastructure. The dismantling of existing planning decisions and the use of flexible land use policy instruments is only one part of this regime. To ‘unplan’ also means to transform the notion of participatory planning, using the language of participation to justify the increasing influence of for-profit actors as participants while excluding popular participation. The early participation of corporations, which includes the production of studies and plans that justify the projects, means that this information needs to be kept secret as to protect their intellectual property.

It also goes beyond land use planning in that the local government actively seeks investors willing to invest in infrastructure projects. This entrepreneurial approach transforms planning itself when the logic of doing what can be done for profit enters the process of writing plans: projects are included insofar as they can be packaged and sold to investors. In Lima, this process occurred in three phases. In the first phase, the Yellow Line was selected on an individual basis, disregarding existing plans. In the second one, the municipal government sought to provide some order by producing project shortlists based on what it perceived private investors could be interested in. In a third phase, a long list of possible projects was included in the metropolitan plan. From initially influencing a decision to approve a particular project, the interests of private capital, or what the municipal government believed those were, became inscribed in a formal planning document.

The use of unplanning as a concept should not be understood as the idealization of the past. In fact, as I have shown in chapter 2, private capital has historically played a key role in Lima's processes of urbanization, planning and infrastructure delivery. But, as I also show in that chapter, the dominance of private capital has been constantly challenged by progressive politicians and planners. Between the early twentieth century and the 1980s, urban policies in Lima followed a path towards the creation of planning institutions, often with redistributive goals. The path was not linear, but it largely went in a progressive direction that had its peak in the 1980s, the era of left-wing municipal governments, municipal-sponsored communal urbanizations, and unprecedented, if limited, investments in public transportation. Urban government in Lima followed a 'double movement' (Polanyi 1944), in which the planning side appeared to be winning, especially in the 1970s and 1980s.

By the time neoliberal policies were beginning to take foot in Peru, two economic historians wrote that Peruvian economic policies in the previous three decades had followed a pendular form, meaning that, from government to government, heterodox economic policies

followed orthodox ones, and vice versa, bringing perpetual instability (OlarTE and Samamé 1991). But almost three decades of neoliberalism have bought a stability that has allowed for a process of state-building that sharply reversed the previous process. This process has actively dismantled the state's capabilities to deliver (or to learn how to deliver) infrastructure and services, and replaced them with means to negotiate with private sector actors that will do so. If during the 'roll back' phase of neoliberalism private enterprises were simply dismantled or privatized, the 'roll out' phase has brought an institution-building process that seeks to deliver new services and infrastructure with private finance through public-private partnerships. The three decades of neoliberalism, then, are exceptional in that they bring a stability of orthodox economic policies that has not been often seen in Peruvian history, at least during the last century. The regime of unplanning must be understood as an urban governance expression of this process.

The contributions of this dissertation are threefold. First, it contributes to the policy literature on public-private partnerships by highlighting the relationship between PPPs and the process of planning infrastructure. On one side, promoters of PPPs highlight their capacity to make funds available, to deliver infrastructure in an efficient manner, and to transfer risk away from the state. On the other, critics question whether they actually transfer risk from the state to the private sector, while pointing out their tendency to create problems due to incomplete contracting and the misalignment of interests between capital and the public. This dissertation has expanded on the latter critique by focusing on an issue that has not been on the forefront of the debate: the fact that private finance can influence *what* gets built, rather than just *how* it gets built. While the question has been addressed before (Siemiatycki 2011), I contribute by showing in detail the process by which the planning process is skewed with the introduction of private finance.

This is related to my second contribution, which relates to the understanding of public-private partnerships as more than an instrument for infrastructure delivery. Rather than simply looking at the introduction of PPPs as a readily available way of financing infrastructure, I have situated it within wider transformations in regimes of governance. Under the specific way in which PPPs are applied in Lima, they have become an instrument of unplanning. As I have shown, their implementation and the newfound finance sources they have brought have led the municipal government to, initially, overturn existing planning decisions, and later adapt formal planning to the needs of private capital. It has also allowed to subject participation to calculative practices that subordinate it to financial concerns.

Finally, my dissertation contributes to the literature on urban transportation planning, specifically as it relates to privately-financed infrastructure. I take on the question posed by Zegras and Grillo (2014) on whether private finance can bring sustainability to urban mobility. I show that in Lima this was not the case, as the introduction of private finance pushed the municipal government to direct investment towards urban highways rather than other types of transportation infrastructure. This case highlights the need for transportation scholars to pay attention to the implications of the increased importance of private capital and private finance in influencing infrastructure planning and decision making.

To conclude, public-private partnerships as they have been used in Lima have brought several problems. These can be divided in three groups. First, in terms of equity and social justice, as the interests of private capital, rather than some notion of the public interest, have largely defined what gets built. Second, in terms of economic efficiency, as PPPs have failed to deliver its promises on that regard. In fact, those promises were misleading from the outset, as the scheme to process unsolicited bids was designed to prevent the alleged provider of efficiency—competition. And third, in terms of democracy, as the PPP model has also been designed to suppress participation. Serious allegations of corruption, still under investigation

as of May 2019, further aggravate these concerns. But, can something be done to improve PPPs or, more broadly, infrastructure delivery in Lima?

The dominance of neoliberal and market-based prescriptions to social problems in Peru seems to suggest that a better way of delivering infrastructure would be hard to achieve. Even when legal cases suggest that all three projects discussed in this dissertation, along with other major PPPs in the country, have been made under corrupt deals, the PPP model itself seems resilient. Corruption allegations have brought condemnation from politicians, the press and the public, but these have been individually focused, either on specific projects or aspects or the projects, or on actors participating in their conception. Calls to stop PPPs, to radically transform its legal framework, or even to stop prioritizing them, remain marginal. But there are also reasons to think that some kind of change is possible.

First, regarding implementation, the current PPP model is so skewed towards favoring the interests of private capital that there is a lot of space for reform. While strengthening the capacity of the state to deliver infrastructure directly might be desirable, even milder reforms such as promoting mixed enterprises that foster learning by state institutions on how to deliver infrastructure and services would be a step in the right direction. The crisis of the PPP model as it has worked until now can be an opportunity for political leaders to call for such a reform.

The second reason is that, while the PPP model sought to suppress participation, it has also inspired people to invent new participatory spaces. Some of these might challenge the model itself. On the one hand, students and young activists have mobilized around urban space and the politics of urban mobility. They have demanded that, contrary to what PPPs in Lima have produced, investments should be directed to create urban space that is walkable and accessible by public transit. While this does not necessarily mean challenging PPPs, it

can open avenues for reforming them in order to facilitate more equitable investments. On the other hand, a pluri-class movement against urban tolls has emerged. The sudden increase of over 100% in the fares of all tolls in Lima have pushed people to mobilize against the projects. Drivers and transit riders organizing around platforms such as No More Abusive Tolls and No to the Toll have used diverse ways of challenging the projects, including direct actions, appearances on the press, and pushing politicians to offer solutions. Their most recent demand is to cancel all projects because of the allegations of corruption. Whether these mobilizations become successful and, especially, whether they challenge the future use of PPPs rather than simply achieving the cancellation or modification of existing projects remain to be seen. But if there is a hope for significant change, is in the action of these and other activists.

Finally, there is the issue of finance. An alternative mode of infrastructure delivery, one that is not dependent on the interests of private capital, would require transforming public finance structures. One way of doing this would be for the national government, which has more indebtedness capacity than local governments, to take over the construction of these projects, using user fees just as a private consortium would do. This, however, would not prevent many of the problems faced by PPP. More importantly, it would still depend on the profitability of projects, which could reproduce inequality by focusing on the areas and types of infrastructure that can secure a return. Another way is one that, perhaps surprisingly for a country as unequal as Peru,³⁸¹ is not often considered as a possibility: increasing the tax burden by raising taxes on the wealthier sectors of the population. The tax burden in Peru is

³⁸¹ Gini index in Peru is somewhere around .60 and .70 according to a report by Oxfam (Alarco, Castillo, and Leiva 2019). Official reports set the index at around .35, but have an obvious methodological flaw: they are based on an annual poll that does not measure the income of the highest earning households.

very low, even for Latin American standards,³⁸² while the highest marginal tax rate is 30%.

There is certainly room for improvement.

³⁸² <https://www.bbc.com/mundo/noticias-47572413> (Accessed 05/28/2019).

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Ministry of Transportation and Communication

Metropolitan Municipality of Lima

Appendix

List of Interviews

No.	Date	Interviewee	Title	Affiliation
1	11/12/2010	Marisa Glave	Council Woman	Metropolitan Municipality of Lima
2*	12/11/2010	N1	President	Asovermirr
2*	12/11/2010	N2	President	3 de Mayo neighborhood
2*	12/11/2010	N3	General Secretary	Villa María del Perpetuo Socorro neighborhood
2*	12/11/2010	N4	President	El Planeta neighborhood
3*	12/14/2010	N5	President	1 de Mayo neighborhood
3*	12/14/2010	N6	Delegate	1 de Mayo neighborhood
4*	12/15/2010	N7	President	9 de Octubre neighborhood
4*	12/15/2010	N8	Delegate	9 de Octubre neighborhood
4*	12/15/2010	N9	Delegate	9 de Octubre neighborhood
4*	12/15/2010	N10	Delegate	El Planeta neighborhood
5	1/6/2011	N1	President	Asovecmirr
6	6/2/2011	N4	President	El Planeta neighborhood
6	6/2/2011	N10	Delegate	El Planeta neighborhood
7	5/27/2016	A1	Architect	UDEAL
8	6/7/2016	Gonzalo Ferraro	Executive President	GyM Infraestructura
8	6/7/2016	F1	Business Development Manager	GyM Infraestructura
8	6/7/2016	F2	Head of Project Management	GyM Infraestructura
8	6/7/2016	Mariana Velarde	Head of Corporate Branding	Grupo GyM
9	6/14/2016	G1	Former advisor	GPIP
10	6/16/2016	F1	Business Development Manager	GyM Infraestructura
10	6/16/2016	F2	Head of Project Management	GyM Infraestructura
10	6/16/2016	F3	Project Manager	Grupo GyM
11	6/23/2016	Guillermo Takano	Adjunct Professor	Universidad de Lima
12	7/23/2016	C1	Associate	Apoyo Consultoría
13	4/3/2017	Teresa Cabrera	Researcher	Desco
14	4/5/2017	José Carlos Orihuela	Associate Professor	PUCP
15	4/6/2017	E1	Financial Analyst	Sistema Nacional de Pensiones
16	4/17/2017	Germán Alarco	Professor	Universidad del Pacífico

17	4/25/2017	Francisco Bocángel	Journalist	Revista Contacto
18	5/9/2017	Miguel Prialé	Former Municipal Manager	Metropolitan Municipality of Lima
19	5/22/2017	Gustavo Guerra-García	Former Manager	Protransporte
20	6/14/2017	Miguel Prialé	Former Municipal Manager	Metropolitan Municipality of Lima
21	6/23/2017	Juan Tapia Grillo	President	CIDATT
22	7/12/2017	Daniel Ramírez Corzo	Former Official	Metropolitan Municipality of Lima
23	7/14/2017	Carlos Chacón	Urban Mobility Expert	PLAM 2035
24	7/25/2017	Pierre Nalvarte	Lawyer	Rosselló Abogados
25	8/2/2017	Álvaro Espinoza	Former Advisor to the Mayor	Metropolitan Municipality of Lima
26	8/3/2017	G2	Advisor and External Legal Consultant	Ministry of Economics and Finance
27	8/10/2017	F4	Engineer	Odebrecht
28	1/25/2018	Alonso Segura Vasi	Former Minister	Ministry of Economics and Finance
29	6/6/2018	G1	Former Advisor	GPIP
30	9/3/2018	A2	Activist	Peruanos de a Pie
31	10/4/2018	Cecilia Balcázar	General Director	Infrastructure Division at the Ministry of Education

*Interviews conducted by research assistant Daniel Salamon.