

Antonia Burchard-Levine
Master Candidate –Urban Management
Technische Universität Berlin

TOWARDS A TRANSIT-ORIENTED AFFORDABLE HOUSING (TOAH) STRATEGY IN MEXICO CITY

ANTONIA BURCHARD-LEVINE

Supervisor: Dr.Ing. Wulf-Holger Arndt

Co-Supervisor: Dr.Dipl-Ing Michael Abraham

Submitted in partial fulfilment of the requirements for the Degree of Master of
Science in urban Management at Technische Universität Berlin

Berlin, February 1st 2016

STATEMENT OF AUTHENTICITY OF MATERIAL

This thesis contains no material which has been accepted for the award of any other degree or diploma in any institution and to the best of my knowledge and belief, the research contains no material previously published or written by another person, except where due reference has been made in the text of the thesis.

Antonia Burchard-Levine
Master Candidate –Urban Management
Technische Universität Berlin

Antonia Burchard-Levine

Berlin, February 1st, 2016

ACKNOWLEDGEMENTS

Completing this thesis would not have been possible without the support of numerous people, to whom I am very grateful.

I would like to thank Bettina and Claudia, as well as the entire Urban Management Class for everything they have taught me. A special thanks to Naomi, my roommate and private cook throughout the year.

I would like to especially thank my supervisors Dr.Ing. Wulf-Holger Arndt and Dr.Dipl-Ing Michael Abraham for their mentorship throughout my thesis.

I am also grateful to the entire team at ITDP Mexico. I am especially grateful to Salvador Medina for his supervision, mentorship, and patience in guiding me through the research process; and to Nely Patlan for her enthusiasm with my topic and valuable feedback.

A special thanks to all interviewees for taking the time to share their thoughts and expertise with me. Their contribution was invaluable to this thesis.

I am most grateful to my family, a consistent source of support and inspiration, and this thesis is dedicated to all four of them. To Vicente and Alejandra for their technical help, patience and encouragement. A special thanks to my dad for his academic wisdom, for teaching me to analyze interviews, last minute proofreading and feedback; and last but not least, my mom for her unconditional patience, encouragement, and simply for putting up with me even when I am not the most pleasant person.

Finally to Andres, for introducing me to Mexico City and sharing his contagious passion for this beautiful and chaotic city, but mostly for his endless patience throughout this process. This thesis would have not been possible without Andres.

ABSTRACT

Is it possible to control urban sprawl, improve urban mobility, and achieve more sustainable forms of urban development, all the while responding to the housing needs of low-income populations in Mexico City? The concept of Transit-Oriented Affordable Housing (TOAH)¹ presents a unique opportunity to counteract these pressing urban challenges under a unified and comprehensive strategy.

Over the past few decades Mexico City has witness rapid rates of urban sprawl, growing social segregation, and significant environmental degradation. In Mexico, TOD is gaining momentum and increasingly becoming a politically and economically attractive concept for sustainable urban development. Investments in the transit infrastructure enhance mobility and increase accessibility to transit, resulting in greater socio-economic benefits. Transit-Oriented Development (TOD) has become a viable option to address some of the most pressing urban challenges in developing countries including urban sprawl, environmental degradation, urban poverty, social segregation and unequal urban development (Suzuki et al., 2013). However, often during the implementation of TOD, market forces increase the price of land around transit stations, placing pressure on the stock of affordable housing (AH), and in turn resulting in processes of gentrification and the displacement of low-income segments of society (Suzuki et al., 2013), which then further accentuates urban sprawl. Therefore, to achieve its goals, TOD must necessarily ensure the availability of AH for low-income populations. In other words, it is key to ensure Transit-Oriented Affordable Housing (TOAH) in order to achieve inclusive, equitable and sustainable urban development.

To this end, the authorities of Mexico need to provide affordable housing in proximity to transit, establish inclusionary housing policies, reformulate current parking requirements, encourage greater coordination mechanisms, and ensure mass housing projects are built in better urban locations. Furthermore, affordable housing (AH) financing tools need to be formulated, and incentives need to be provided to encourage the private sector to engage in the production of TOAH.

This document explores a number of international strategies and four case studies linking AH to public transit (two in the United States and two in Latin American) along with an analysis of the main urban challenges and the policy framework of Mexico City. The last section

¹ Transit-Oriented Affordable Housing (TOAH) consists in below-market rate housing (housing affordable to low-income populations) in current of future TOD developments, or in proximity to mass transit stations or corridors.

Antonia Burchard-Levine

Master Candidate –Urban Management
Technische Universität Berlin

provides a set of recommendations for the government of Mexico City to work towards a TOAH strategy, as a means to achieve inclusive, equitable sustainable urban development.

Key Words: Transit-Oriented Development (TOD), Transit-Oriented Affordable Housing (TOAH), Inclusive City, Urban Sprawl, Density, Parking Regulations, Housing Policy, Public Policy, Land Market Value, Gentrification, Displacement.

Table of Content

Statement of authenticity of material.....	2
Acknowledgements.....	4
Abstract.....	5
Abbreviations	11
Definitions and Terminology	13
1 Introduction.....	14
1.1 Problem Statement	15
1.2 Hypothesis.....	15
1.3 Research Questions, Objectives and Justification	16
1.3.1 Main Research Questions.....	16
1.3.2 Research Sub-Questions.....	16
1.3.3 Research Objectives	16
1.3.4 Research Justification.....	17
2 The Context: Mexico City.....	19
2.1 Expansion from Mexico City towards the State of Mexico	21
2.2 Travel Demands, Motorization Rates, and Traffic Congestion	22
2.3 Social Segregation and Lack of Affordable housing	24
2.4 Mexico City and Opportunities for TOD.....	25
2.5 Mexico City and Transit-Oriented Affordable Housing	26
3 Conceptual Framework	28
3.1 Defining Transit Oriented Development (TOD)	28
3.2 Equitable Transit-oriented Development	29
3.3 Transit-Oriented Affordable Housing	31
4 Research Design and Methodology.....	33
4.1 Literature Analyses	33
4.2 Case Studies.....	33
4.3 Policy Analysis.....	33
4.4 Stakeholder Analysis	34
4.5 Semi-Structured in-depth interviews	34
4.5.1 Conducting the interviews	35

4.5.2	Analyzing the interviews	36
5	Research analysis	37
5.1	Literature Research	37
5.1.1	STRATEGY 1: AFFORDABLE HOUSING FINANCING TOOL	37
5.1.2	STRATEGY 2: INCENTIVES FOR PRIVATE SECTOR DEVELOPERS.....	39
5.1.3	STRATEGY 3: COLLABORATIVE PLANNING TOOLS.....	39
5.1.4	STRATEGY 4: TRANSPORTATION MANAGEMENT TOOLS.....	40
5.1.5	STRATEGY 5: COORDINATION MECHANISM	41
5.1.6	STRATEGY 6: INCLUSIONARY HOUSING POLICIES	41
5.1.7	STRATEGY 7: PRESERVING AND PROTECTING AFFORDABLE HOUSING	42
5.2	Case Studies.....	43
5.2.1	Minneapolis (USA) - Corridor of Opportunity: A Funders Collaborative for Housing Affordability	43
5.2.2	Bogota, Colombia - Metrovivienda: Connecting Affordable Housing to Mass Transit	46
5.2.3	Rio de Janeiro, Brazil: The Urban Insertion Assessment Tool to Assess Mass Social Housing Projects.....	48
5.3	CONCLUSION	50
5.4	Situation in Mexico City.....	51
5.4.1	POLICY ALIGNEMENTS.....	51
5.4.2	CONCLUSION	54
5.5	Stakeholders Analysis.....	54
5.6	Identifying Challenges towards a Transit-Oriented Affordable Housing Strategy in Mexico City.....	59
5.6.1	Missed Opportunities.....	63
5.7	Interview Analysis.....	66
6	Discussion of results.....	73
7	Recommendations	76

7.1	Government provided housing in proximity to transit for rent or sell.....	76
7.2	Inclusionary Housing Policies	76
7.3	Affordable Housing Financing Tools	76
7.4	Incentives For The Private Sector	77
7.5	Urban Insertion Tool For Evaluating Housing Programs	78
7.6	Reformulate Parking Requirements	78
7.7	Enhanced Mechanism For Inter-Institutional Coordination:	79
8	Conclusion	81
9	Future Research	82
10	References	83
11	Interviews.....	87
12	Annexes.....	88
12.1	Interviewee list	88
12.2	Interview transcripts	89
12.2.1	Salvador Herrera Montes.....	89
12.2.2	Onésimo Flores Dewey	94
12.2.3	Luis Zamorano	105
12.2.4	Edgar Aviles Gomes.....	117
12.2.5	Manuel Suarez Lastra.....	123
12.2.6	Jody Pollock.....	126
12.2.7	Alejandro Morales.....	133
12.2.8	Luri Moura.....	142
12.2.9	Sergio Gonzalez.....	147
12.2.10	Josefina MacGregor	155
12.3	Interview Analysis and Coding Example	160
12.4	List of Tools for TOD and Housing Affordability (Pollack et al 2010).....	173

List of Figures

Figure 1. Problem Statement and Research Process	18
Figure 2. Map of the Metropolitan Zone of the Valley of Mexico, covering Mexico City (Federal District) (16 delegations) the State of Mexico (59 municipalities) and Hidalgo (one municipality).....	19
Figure 6 Methodology	33

List of Tables

Table 1. Example of Interview Questions.....	35
Table 2. Example of Recommendations to Improve Urban Insertion of MCMV Projects based on TOD Principles	49
Table 3. Listing of Stakeholders.....	55
Table 4. Topics Yielded Through Interview Analysis	66
Table 5. List of Interviewees.....	88
Table 6. Interview Analysis.....	160
Table 7. Planning Tools.....	173
Table 8 Housing Market tools	175
Table 9 TRansportation management tools.....	179
Table 10. Transportation Management Tools.....	179

ABBREVIATIONS

AH	Affordable Housing
ALDF	Legislative Assembly of Mexico City
BANOBRAS	National Construction and Public Service Bank
BRT	Bus Rapid Transit
CANADEVI	National Chamber for the Industry of Developers and Promotion of Housing
CDMX	Mexico City (<i>Ciudad de México</i>)
CMIC	Mexican Chamber of the Construction Industry
COMETRAVI	Metropolitan Transportation and Roads Commission
CONAVI	The National Housing Commission
CTOD	Center for Transit Oriented Development
DF	Distrito Federal
FIBRAS	Investment and Real Estate Trust
FIMEVIC	Roads Improvement Trust of the Federal District
FONADIN	National Infrastructure Fund
FONHAPO	National Popular Housing Fund
FOVISSTE	Housing Fund of the Institute and Social Services of State Workers
GDP	Gross Domestic Product
INEGI	National Institute of Statistic and Geography
INFONAVIT	National Workers' Housing Fund Institute
INVI	Housing Institute
ITDP	Institute for Transportation and Development Policy
LDUDF	General Urban Development Law for the Federal District
LGAH	General Human Settlement Law
LGEPA	General Environmental Protection Law
MCMV	<i>Minha Casa Minha Vida</i>
MXN	Mexican Pesos
NGO	Non-Governmental Organization
OECD	Organization for Economic Co-operation and Development
PGDUDF	General Urban Development Program for the Federal District
PIM	Comprehensive Mobility Plan
PND	National Development Plan
SCT	Secretariat of Communications and Transportation
SE	Secretariat of Economy
SEDATU	Secretary of Agrarian, Territorial and Urban Development
SEDESOL	Secretariat of Social Development
SEDUVI	Secretariat of Urban Development and Housing
SEMARNAT	Secretariat of the Environment and Natural Resources
SEMOVI	Secretariat of Mobility

Antonia Burchard-Levine

Master Candidate –Urban Management
Technische Universität Berlin

SENER	Secretariat of Energy
SHCP	Secretariat of Finance and Public Credit
SHF	Federal Mortgage Society
TMS	Times the minimum salary
TOAH	Transit- Oriented Affordable Housing
TOD	Transit Oriented Development
ZMVM	Metropolitan Area of the Valley of Mexico

DEFINITIONS AND TERMINOLOGY

The definitions below define the scope of this thesis.

Affordable housing (AH): According to the OECD (2015), “the lowest viable price of a housing unit, given the current land values in Mexico City, is MXN 800,000, (1MXN=22EUR) which is still unaffordable for low-income households. Moreover, most of the housing built in Mexico City is above the threshold that could be eligible for federal subsidies. This may be, in part, why in 2015 only 5 percent of the housing financed through INFONAVIT, FOVISSTE, banks and other financial entities, was issued in Mexico City, despite being home to 18 percent of the country’s population and housing stock” (Department of Urban Studies and Planning MIT n.d., p. 116). This thesis will refer to affordable housing (AH) in terms of housing which is affordable to low-income populations.

Intra-urban locations: Defined as areas located within the borders of Mexico City and with access and proximity to urban services such as mass transportation.

Equitable TOD: Transit-Oriented Development that is concerned with providing affordable housing as well as employment opportunities in close proximity to transit, and thereby minimizing the transit costs for lower-income individuals and as a result “generate healthier residents, vibrant neighbourhoods and strong regional economies” (Pollack & Prater, 2013, p. 4).

Transit-Oriented Affordable Housing (TOAH): Transit-Oriented Affordable Housing (TOAH) will be considered as below-market rate housing (housing affordable to low-income populations) in current of future TOD developments, or in proximity to mass transit stations or corridors.

Mexico City: Formerly known as the Distrito Federal (Federal District or DF). As of 2016 the Federal District became officially known as Mexico City and as the 32nd entity of the country. It remains the capital of the country, but now with its own political constitution. In addition, the Legislative Assembly is dissolved to give way to a local congress. The constitution and legal aspects are currently being drafted and negotiated. Although this change will inevitably have consequence in urban planning initiatives, this thesis will refer to Mexico City as what was formerly the Federal District (Mendoza, 2016).

1 INTRODUCTION

Transit-Oriented Development (TOD) has become a viable strategy to contain urban sprawl, and address some of the most pressing urban problems in developing countries including environmental degradation, urban poverty, social segregation, and unequal urban development (Suzuki et al., 2013). In Mexico, TOD is increasingly becoming a politically and economically attractive concept for urban development. It has been included through objective 4 of the National Urban Development Program (SEDATU 2014-2018), as well as in strategic axis 6 of the Comprehensive Mobility Program (SEMOVI 2013-2018).

As an urban development concept, TOD provides a number of opportunities to achieve sustainability and social inclusion. It can remediate social segregation by bringing people closer to urban services, increasing accessibility to urban spaces and services, shortening and easing commutes, thus allowing more time for personal and economic development as well as social mobility (ITDP n.d.). TOD can also make housing more affordable by reducing household expenditure on transportation, and freeing resources towards housing costs.

On the other hand a TOD strategy runs the risk of placing pressure on the supply of affordable housing (AH) (Great Communities Collaborative, 2007) making areas that receive investments in the transit infrastructure susceptible to gentrification (Pollack et al., 2010) and ultimately displacing low-income residents (Great Communities Collaborative, 2007, p.14). This counteracts some of the benefits of housing affordability that can be achieved with a TOD strategy. Without the adequate policies, incentives, and measures of social inclusion, TOD as an urban development concept will not achieve its fullest potential, and in some cases, bring about negative consequences.

Mexico City, the city that is the subject of this thesis, faces a number of urban challenges including fragmented urban sprawl, rising motorization rates, increasing traffic congestions, and social segregation, many of which TOD can address if properly implemented. Furthermore, there is a serious disconnect between AH policies and mass transit developments resulting in unsustainable forms of growth, leading to rapid rates of urban sprawl and increasing social segregation. One of the most important challenges in regards to TOD in Mexico City includes the provision as well as the preservation of AH (Department of Urban Studies and Planning MIT, n.d., p. 10). Therefore, it is crucial that authorities in Mexico City establish an environment that is conducive to ensuring affordable housing (AH)

policies to low-income groups in proximity to mass transit in order to achieve sustainable and equitable urban development.

Although TOD can bring about a number of benefits, there is little research concerned with linking affordable housing (AH) programs and TOD, nor with coordinating transportation and land use planning, and even less in the context of the “developing world” (Gilat & Sussman, 2002).

In this context, emerges the concept of **Transit-Oriented Affordable Housing (TOAH)**. TOAH consists in below-market rate housing (housing affordable to low-income populations) in current or future TOD developments, or in proximity to mass transit stations or corridors. With an effective strategy, TOAH can remediate many of the urban challenges in Mexico City by bringing people closer to the urban infrastructure and services, increasing the stock of AH in urban centers, and ultimately achieving a more equitable and sustainable urban structure.

This thesis explores a number of international strategies and four case studies linking AH to public transit (two in the United States and two in Latin American) along with an analysis of the main urban challenges and the policy framework of Mexico City. The aim of this document is to provide a set of recommendations for the government of Mexico City to work towards a TOAH strategy.

1.1 PROBLEM STATEMENT

Although TOD is a viable option to remediate a number of urban challenges present in Mexico City, during the implementation process of TOD, land market forces often increase the price of land around transit stations, which can result in processes of gentrification (Pollack & Prater, 2013) and displacement of low-income segments of society (Suzuki et al., 2013). When this occurs, low-income residents are pushed further and further out toward the periphery, where land and living costs are cheaper (Suzuki et al., 2013: 165) thus, counteracting many of the benefits TOD aims to achieve in the first place.

1.2 HYPOTHESIS

To achieve a sustainable and equitable city, it is vital to coordinate and integrate transportation and housing policies (Suzuki et al., 2013). Suzuki et al., (2003) state that the ideal approach is to coordinate low-income housing programs and transit development so that beneficiaries of housing programs also benefit from improved mobility and, in the long run, achieve a more inclusive and economically stable society. Therefore, authorities need to

focus on formulating AH policies as well as incentives to ensure that AH is built in proximity to mass transit (Suzuki et al., 2013: 19).

This thesis will explore strategies to ensure the production of AH in current or future TOD for low-income families in Mexico City. **This thesis hypothesizes that ensuring the production of Transit-Oriented Affordable Housing (TOAH) is a means of achieving equitable TOD, and therefore contributes to achieving a more sustainable, inclusive and equitable urban development in Mexico City.**

1.3 RESEARCH QUESTIONS, OBJECTIVES AND JUSTIFICATION

1.3.1 Main Research Questions

What strategies can ensure the production and preservation of affordable housing (AH) for lower-income segments of society during the implementation of TOD in Mexico City?

1.3.2 Research Sub-Questions

- 1) What are viable incentives and strategies for the development of low-income housing utilizing TOD guidelines in Mexico City:
 - a) At the policymaking and governmental level?
 - b) For the private sector?
 - c) At the civil society level?
- 2) What are international best practices in ensuring TOAH and what recommendations can be given for authorities in Mexico City?
- 3) Based on an analysis of best practices and considering the situation of Mexico City, what recommendations can be given to integrate TOAH in Mexico City?

1.3.3 Research Objectives

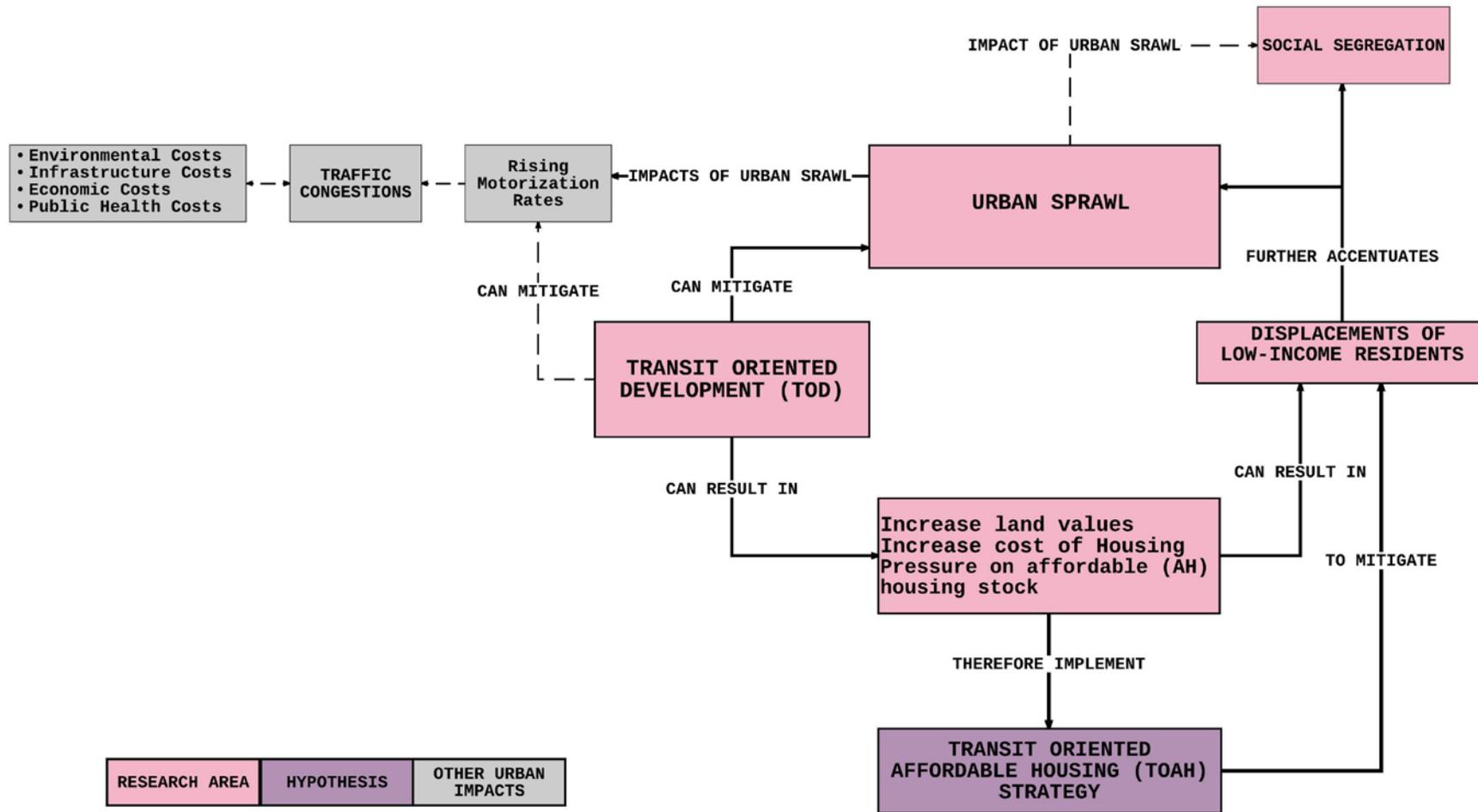
- 1) Research the status quo of TOAH through a literature review, case studies as well as in-depth interviews with local actors and stakeholders in Mexico City.
- 2) Analyse viable strategies for the development of TOAH in Mexico City.
- 3) Identify challenges, and gain insights from the different stakeholders and recommend strategies and policies to formulate a TOAH strategy.
- 4) Recommend viable strategies to coordinate transportation and affordable housing developments and incentivize TOAH to local governments as well as private sector developers.

1.3.4 Research Justification

In Mexico, TOD is gaining momentum and increasingly becoming a politically and economically attractive concept for urban development. However, without the adequate policies, incentives, and measures of social inclusion, TOD as an urban development concept will not achieve its fullest potential, and in some cases, bring about negative consequences.

The main motivation for pursuing this research topic stems from the fact that the topic of TOAH, or TOD and AH is a largely an unexplored topic, especially in Latin America. Furthermore, the negative aspects that can result from TOD, without including the necessary policies, have received little attention. In addition, there is little research concerned with coordinated transportation and land use planning, and even less in the context of the “developing world” (Gilat & Sussman 2002).

Most TOD projects in Mexico City include housing that is reserved for the upper echelons of society, without ensuring AH to low-income segments, that segments that would most benefit from proximity to transit. As land near transit is directed towards housing targeted at upper-income segments of society, the opportunities to achieve equitable TOD will be lost (Great Communities Collaborative, 2007:14). Once this occurs, it is very difficult to reverse the trend, and thus it is crucial to get it right from the beginning.



Source: Self-elaborated

Figure 1. Problem Statement and Research Process

2 THE CONTEXT: MEXICO CITY



Source: *Mapa de la Zona Metropolitana del Valle de México*, 2006

Figure 2. Map of the Metropolitan Zone of the Valley of Mexico, covering Mexico City (Federal District) (16 delegaciones) the State of Mexico (59 municipalities) and Hidalgo (one municipality).

The Metropolitan Area of the Valley of Mexico (ZMVM - *Zona Metropolitana del Valle de México* per Spanish acronym) expands over an area roughly equivalent to 5 times the size of the Greater London region, covering the 16 *delegaciones* (boroughs) of the Mexico City, 59 municipalities from the State of Mexico and 1 municipality from the state of Hidalgo (OECD,

Antonia Burchard-Levine

Master Candidate –Urban Management
Technische Universität Berlin

2015). It has an area of 5,294.42 km² of which 1,483.23 km² corresponds to Mexico City. The remaining 3,811.19 km² constitute the surrounding State of Mexico (Estado de Mexico – EM) (Gilat & Sussman 2002).

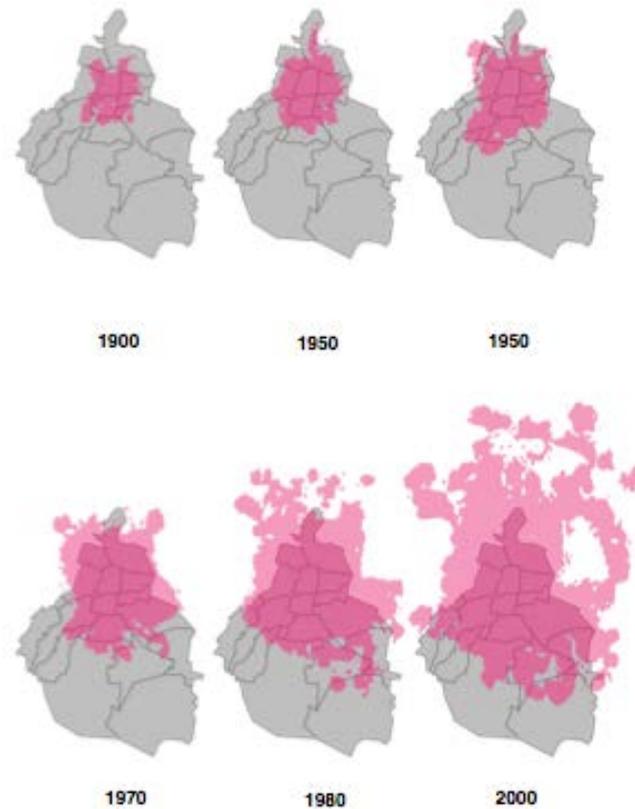
Figure 2 depicts the limits of Mexico City within its geographical context, bordering the State of Mexico and within the ZMVM.

ZMVM represents 17 per cent of the country's population, and 23 per cent of Gross Domestic Product (OECD, 2015). It counts with a population of 20 million people, ranking it third most populated metropolitan area outside of Asia. It is projected that between 2010 and 2030, the population is expected to increase by 13 per cent (OECD, 2015) and the population of ZMVM is expected to increase by 2 million by 2020. However, according to this projection this growth will occur in the State of Mexico, while Mexico City will lose population (ITDP, n.d.). Therefore, much of the population of Mexico City will move from urban centres, with access to urban services, out towards ZMVM commuting area, pointing to a continuous and potentially problematic pattern of urban sprawl. The shaded area of figure 2 shows this, the urban expansion extending from Mexico City and crossing out towards the State of Mexico.

Mexico City, formerly known as *El Distrito Federal (DF)* or the Federal District is the seat of the federal government. Mexico City has a population of 8,918,658 people (INEGI 2015), and is divided into 16 *delegaciones* that act as territorial and political-administrative divisions similar to the municipalities, but with juridical and administrative differences (OECD 2015). Its *delegaciones* are territorial and political-administrative divisions. These are led by publicly elected authorities, however unlike municipalities, *delegaciones* cannot collect their own taxes or control local police (OECD, 2015). *Delegaciones* are then divided in *colonias*, which correspond to neighbourhoods.

Mexico City currently faces a number of urban challenges that need to be addressed. These challenges include fragmented urban sprawl, rising motorization rates, increasing traffic congestions, and social segregation. TOD provides a viable option to address many of these challenges. Furthermore, a TOAH strategy can remediate many of these issues by bringing people closer to the urban infrastructure and services, increasing the stock of AH in urban centres, and ultimately achieving a more equitable and sustainable urban structure.

2.1 EXPANSION FROM MEXICO CITY TOWARDS THE STATE OF MEXICO



Source: Enriquez Portillo (2016) based on FIMEVIC (nd)

Figure 3. Depiction of Urban Expansion of Mexico City since 1900

Source: Enriquez Portillo (2016) based on FIMEVIC (nd)

Over the past five decades, the urban expansion of Mexico City has witnessed a chaotic urban expansion, and a massive extension of the population toward the periphery and into the surrounding State of Mexico (FIMEVIC n.d.). The major issue is that this rapid and uncontrolled urban sprawl has not been commensurate with the delivery of strategic planning, localisation of services, and mobility infrastructure investments (ITDP, n.d.) The pink shaded area in Figure 2 provides a visual depiction of the trend of urban expansion moving from Mexico City (Distrito Federal) out towards the State of Mexico, while figure 3 depicts the urban transportation network that has remained largely unchanged.

This pattern of urban sprawl brings about further challenges, as it is spreading across the boundaries of Mexico City into the State of Mexico, which is a distinct political entity (as shown in figure 2).

Over the past few decades, the central *delegaciones* of Mexico City, where the majority of urban infrastructure is located, have undergone a trend in which the population is moving

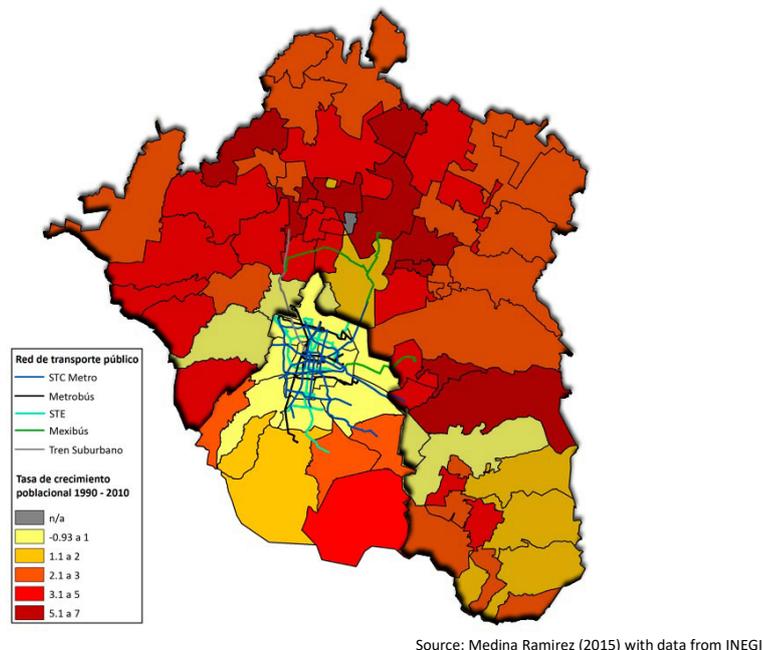


Figure 4. Mexico City's Mass Transit in 2015

towards the periphery and into the State of Mexico (FIMEVIC n.d.). This has had major consequences onto mobility and transportation patterns resulting in a number of negative externalities onto society (FIMEVIC n.d.).

As a result, the commuting zone of ZMW is growing significantly faster than that of Mexico City's core areas and, as this area is expanding, it has failed to be accompanied by the delivery of adequate infrastructure, particularly in terms of public transportation.

2.2 TRAVEL DEMANDS, MOTORIZATION RATES, AND TRAFFIC CONGESTION

An important implication of this pattern of urban sprawl is its effect on mobility behaviour and travel demand, which has resulted in increasing motorization rates, traffic congestions, not to mention the accompanying environmental and social implications. According to an assessment by FIMEVIC (n.d.), in 1983, 62 percent of trips originated and ended within the boundaries of intra-urban *delegaciones*, and by 1994 only 57 percent of trips remained within these limits. According to the same study 4.2 million daily trips crossed metropolitan

boundaries (the boundaries of Mexico City into its surrounding State of Mexico), and it is estimated that by 2020 the number of these trips will increase to 5.6 million daily trips (FIMEVIC, n.d.). According to OECD (2015), it is estimated that over 40 percent of residents in ZMVM cross a municipal-level boundary to go to work or school during daily commutes, which is placing a growing burden on the transportation and road networks (OECD, 2015: 23).

The increased demand of transportation results in growing motorization rates. In Mexico, motorization rates have almost doubled over the past decade “reaching 20 vehicles per 100 people, and in 2011 over 70% of the country’s 22.4 million cars were registered in metro zones” (INEGI, 2014). In turn, rising motorization levels result in a number of externalities including traffic congestion and pollution as well as significant economic losses.

Traffic in ZMVM ranks among the worst in the world. According to estimates made through the use of travel data from GPS systems, 29 minutes are lost due to delays in traffic for every daily 30-minute commute (ITDP, 2012a). This has had significant consequences on the city’s economy. According to ITDP, taking in to account “the direct economic cost of congestion, the detrimental impact on residents’ overall well-being is even higher” it is estimated that traffic congestions results in an annual loss of 3.1% of GDP in the ZMVM (ITDP, 2012a in OECD, 2015; 24).

According to OECD (2015), a reason for which Mexican cities underperform compared to their OECD peers, is due to the fact that “they fail to provide an environment that connects inhabitants to economic opportunity and to social and urban infrastructure, and that allows firms to reap agglomeration benefits” (OECD 2015: 7). Thus, local authorities need to make greater efforts to improve the social and urban infrastructure in Mexico City, and a TOAH strategy provides a viable opportunity towards this goal.

TOD is a strategy aiming to integrate urban development and urban mobility. However, an effective TOD strategy goes beyond the realm of transportation, and should foster an enhanced quality of life, greater economic productivity and competitiveness, among others (ITDP n.d.).

2.3 SOCIAL SEGREGATION AND LACK OF AFFORDABLE HOUSING

Lower-income populations in Mexico City are underserved by the housing sector, and only five per cent of homes are considered affordable (Ortiz, 2016). In order to meet the housing demand for low-income populations 41,000 new units need be produced on a yearly basis. Mexico City's Housing Institute (INVI) builds 2,500 units and private developers build another 2,500 units, and therefore there continues to be a rather serious deficit in the production of AH for lower-income populations.

Even though the private sector plays an important role in the housing sector, it fails to supply housing to lower-income groups. Only five percent of homes built by private developers are priced below MXN 700,000 (Ortiz, 2016). Moreover, due to lower prices of land located in the periphery, most low-income housing projects have been located in the State of Mexico, further accentuating urban sprawl and social segregation, and therefore the little AH units that are being produced, are often located in remote areas without access to urban services. The supply of AH in central urban areas with access to good quality urban services such as transportation is seriously lagging behind (Ortiz, 2016).

Living within the boundaries of Mexico City is becoming increasingly expensive. In Mexico City housing costs have increased by 4.9 percent at the national level, while in Mexico City they have increased by 7.8 percent (Comision de Vivienda, 2016, p.16). Policy and instruments do not take this difference into account, and thus the acquisition of housing in Mexico City is becoming increasingly unattainable for some of the most vulnerable segments of society.

Furthermore, urban sprawl does not simply present concerns in terms of inefficient use of land, but in the case of Mexico City it also accentuates social segregation (Sánchez Peña, 2012 in OECD 2015, p.7), and this has resulted in significant **incongruence between employment and housing**, as well as housing and urban services such as public transportation.

Financing models for housing of the past few decades have further accentuated urban sprawl and social segregation. Local and federal housing policies have fostered urban sprawl by incentivizing developers to build on the periphery where land is cheaper to acquire. The National Workers' Housing Fund Institute (INFONAVIT) is the largest national provider of housing fund, and to some extent drives the housing sector in Mexico (OECD, 2015, p.5). Mortgages offered by INFONAVIT are too low to allow for the acquisition of housing at the

prices of intra-urban soil in Mexico City. As a consequence, a number of mass housing developments have proliferated towards the fringe of Mexico City and far away from the core areas of Mexico City (Department of Urban Studies and Planning MIT, n.d., p. 122).

As a result of this trend, lower-income families are moved further and further from central areas where employment and services are located, thereby affecting their social mobility and economic opportunity, increasing pressures in transport, and promoting car ownership in a city already plagued with traffic congestion and environmental air pollution (Department of Urban Studies and Planning MIT, n.d., p.16).

TOAH has the potential to address housing, transportation and wider urban development concerns in Mexico City, and presents a viable measure to counteract the aforementioned challenges.

2.4 MEXICO CITY AND OPPORTUNITIES FOR TOD

Mexico City counts with many prerequisites for a TOD strategy (Gilat & Sussman, 2002). Mexico City has 442 km public transport network It counts with twelve subway lines (STC), a light rail, a suburban rail, 5 BRT lines, (*MetroBus*) serving Mexico City and three BRT lines (*Mexibus*) serving the State of Mexico, hundreds of “*microbus*” serving the area, and an expanding shared bicycle system (*EcoBici*) (ITDP, n.d. and Department of Urban Studies and Planning MIT, n.d.). The City also counts with eight lines and more than 200 km network of Trolley busses (*Trolebus*) (“*Servicio de Transportes Eléctricos del D.F.,*” n.d.).

Other notable improvements in the public transportation infrastructure consist in the suburban train (*tren suburbano*) inaugurated in 2008 and connecting Mexico City and the State of Mexico with 7 stations and 27 kilometers of rail (“*Ferrocarriles Suburbanos,*” n.d.). Furthermore, in October 2016 the State of Mexico inaugurated the country’s first cable car public transportation system in one of the most marginalized neighborhoods Ecatepec, known as the *Mexicable*. The efforts directed towards *Mexicable* are meant to reduce commute times for its expected 26 thousand daily users (Salinas Cesáreo, 2016). Although it is located in the State of Mexico, it shows recent efforts towards improving the public transportation, reduce commuting time, and diminishing social segregation.

The low-density urban sprawl combined with the good quality transport in the central delegations of Mexico City points to the fact that Mexico City could reap a number of benefits from focusing on encouraging TOD. According to the study conducted by ITDP (n.d);

“At around 1004 stations (918 in DF) of the stations that compose that network, it is possible to find areas that are subject to re-densification or re-use, or new areas according to the growth of the quality public transport network” (ITDP n.d. p.8).

Furthermore, ITDP (n.d) also analyzed potential opportunities for TOD within an 800-meter radius around public transit stations. This study found that at “3,548 hectares around public transit are of low density, which hinder viability of public transport; 163,355 unoccupied housing units with the potential to serve 588, 078 thousand people”. Analysing a 400 meter radius around public transportation stations, ITDP found that developments are underutilized:

“the residential use with offices reaches an average of 4.8 stories, compared to 9.3 stories in the rest of the city. If they were to be converted into residential use with offices, 3,320.2 hectares would be available in order to increase the height to 4 or 5 additional stories”(ITDP n.d. p. 9).

Recent years have seen a transition from a policy focused on multimodal access, rather than just on road management, as well as overall improvements in the public transportation network. However, developments have failed to coordinate with other planning efforts, which prevent it from maximizing its benefits (OECD, 2015; 11).

Although Mexico City has a number requirements for extensive TOD, it is clear that there is much room for improvement. There is an urgent need to formulate effective policies to ensure TOD achieves its fullest potential in terms of spatial planning, sustainability, and equality. One of the most important challenges in regards to TOD in Mexico City includes the provision as well as the preservation of affordable housing (Department of Urban Studies and Planning MIT n.d.: 10).

2.5 MEXICO CITY AND TRANSIT-ORIENTED AFFORDABLE HOUSING

With the right actions, adequate investments, synergies, and political interest, a TOAH strategy can make cities more sustainable and address a wide range of urban and social problems.

Mexico City suffers from a chronic lack of AH, yet it also suffers from a high rate of social housing abandonment and vacancy. The main reason low-income families abandon their

housing units is due to the remote location of these homes, usually located far from sources of employment and urban services, thus increasing the cost of transportation (Ireland, 2015). Distance to work is a major factor in housing abandonment, and according to the Federal Mortgage Society (SHF per Spanish acronym), an increase in one-kilometer results in an increase of up to five hundred abandoned homes (Sociedad Hipotecaria Federal, 2015, p. 60). This constitutes a serious misallocation of resources and, moreover, accentuates negative environmental impacts associated with urban sprawl (OECD, 2015, p. 66). It becomes evident proves that is not sufficient to merely provide housing, but it is equally important to ensure housing projects are well located and count with access to the urban infrastructure and services. Therefore, public policy should be directed towards ensuring good locations for low-income housing projects.

There is an urgent need to coordinate housing and transportations. Authorities need to focus on pursuing “affordable housing policies and develop incentives to ensure that affordable housing is built close to transit stops” (Suzuki et al., 2013: 19). Without innovative strategies to ensure the inclusion of AH, many TOD developments can become unaffordable to low-income households, and potentially displace them (Center for Transit Oriented Development, 2007).

Fostering a TOD framework with an emphasis on social inclusion and equity can address a wide range of urban challenges in Mexico City, including segregation and fragmented urban developments. A TOAH strategy for Mexico City presents a great opportunity to link both housing and transportation to foster a more sustainable and inclusive society (OECD, 2015, p.18), and ultimately “lessens the pressure on the continued sprawl by encouraging urban affordability options, including rental units, close to public transit and at higher densities” (Department of Urban Studies and Planning MIT, n.d, p. 16).

Encouraging TOAH is a means to integrate AH and transit and achieve a number of synergies to improve the social fabric and achieve more equitable forms of development.

3 CONCEPTUAL FRAMEWORK

The next section provides a theoretical background for the key concepts that will be discussed throughout the thesis.

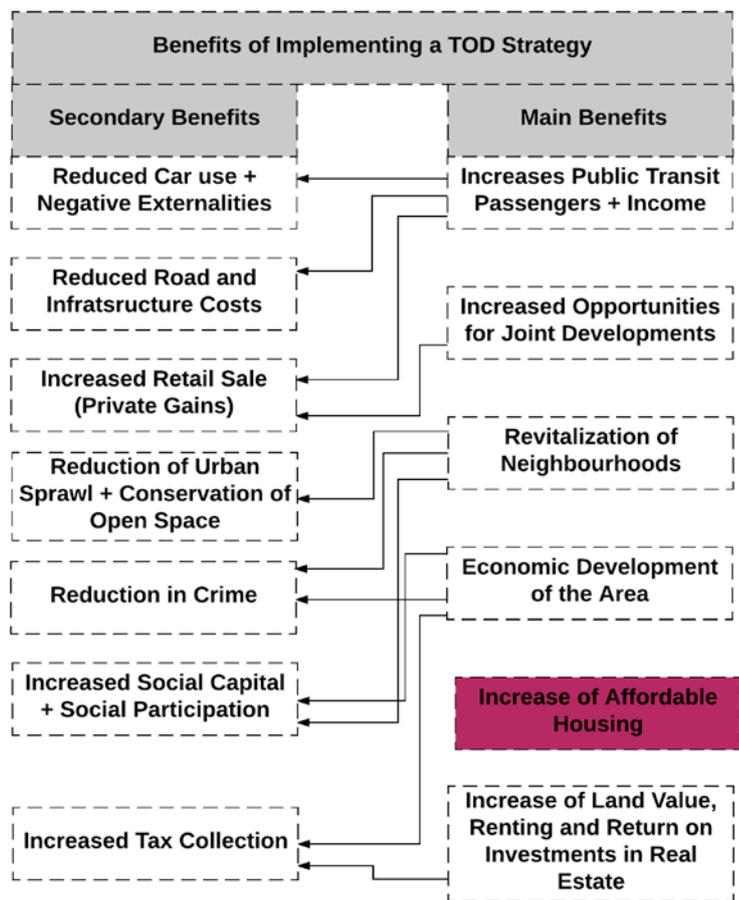
3.1 DEFINING TRANSIT ORIENTED DEVELOPMENT (TOD)

Transit-oriented development (TOD) is a concept that is increasingly gaining popularity and recognition. Although widely discussed during planning processes as well as in the literature, the term ‘transit-oriented development’ often leads to misunderstandings since it is often used to characterize a wide range of types of projects or initiative with little in common (Belzer & Autler, 2002). Upon examining the literature, it becomes readily evident that there is no universally-accepted or comprehensive definition of TOD, nor is there a fixed idea regarding its goals, strategies and objectives (Belzer & Autler, 2002).

According to Suzuki et al., (2013)’s reference work *Transforming Cities with Transit: Transit and Land-Use Integration for Sustainable Urban Development* TOD incorporates two main features. The first feature entails proximity and a functional relationship to high-quality public transit, and the second feature consists in “compact, mixed-use buildings and neighbourhoods that, because of their design, encourage walking, cycling, and use of public transit by residents, employees, shoppers, and visitors” (Suzuki et al., 2013, p. 37).

Despite the fact the built form is a key aspect in many TOD definitions, a successful implementation of TOD implies much more than just developments in the infrastructure (Belzer & Autler, 2002; 8). Belzer & Poticha (2009) define *ideal TOD* as mixed-income families living and working in close proximity to transit, permitting them to make their daily trips using public transit rather than driving. According to ITDP (n.d.), the fundamental aspect of TOD is proximity to mass public transit, and that it should ideally also foster walking and cycling, manage parking policies, discourage the use of automobile while encouraging the use of public transit (ITDP n.d.). According to Belzer & Autler, (2002), TOD is defined by an increase in “choice of transportation modes, housing types, and lifestyles; access to jobs and services; fewer negative impacts of the automobile; and a high degree of satisfaction in residents and visitors” (Belzer & Autler, 2002, p. 4).

Accompanied with a number of actions, adequate investments, synergies, and political interest, TOD holds the potential to achieve sustainable cities, and address a wide range of urban and social problems. According to the Transit Oriented Development Institute (n.d.), TOD can also serve to reduce a household’s expenditure on transportation, thus freeing up resources that can be allotted towards housing costs. Figure 5 depicts some of the main and secondary benefits that can be achieved through a TOD strategy, in which affordable housing is considered the main benefit.



Source: Self-elaborated based in ITDP (n.d)

Figure 5. Benefits of Implementing Transit Oriented Development

3.2 EQUITABLE TRANSIT-ORIENTED DEVELOPMENT

TOD is increasingly perceived as a means to deal with number of social problems found in contemporary urban settings, and if properly implemented can work to achieve a number of social benefits (Duane et al., 2001; Calthorpe and Fulton, 2001 in Cervero et al., 2002).

Suzuki et al., (2013) contend that TOD should seek to address some of the most pressing obstacles facing cities, especially cities in developing countries, including “crippling urban poverty and deprivation”(Suzuki et al., 2013, p.19). This is particularly beneficial for lower-income segments of society, who would have to spend less of their income on transportation and gain from better access to services as a result of TOD (Belzer & Autler, 2002, p. 15).

At the moment, many projects incorporating TOD are failing to leverage the social benefits that it can generate. As interest in TOD grows, it represents both an opportunity as well as a challenge. Since TOD offers an attractive lifestyle, an increased demand for TOD in cities will add new incentives to real estate developers. On the other hand, it presents a paradox in the sense that often developments around transit stations eventually cease to be affordable for lower-income households, the households that would most benefit from improved access to transit (Great Communities Collaborative, 2007, p. 14)

A main concern, however, is that despite the fact that low-income groups are those who would reap the most benefits from TOD developments, TOD projects do not tend to focus on lower-income communities (Soursourian, 2010). Often the opposite that occurs, TOD projects tend to target upper-income segments of society, and at times even push the other residents away from urban centres (Soursourian, 2010). In some cases TOD projects can result in the displacement of low-income groups, pushing them further away from employment opportunities, the public transit infrastructures and other vital urban services.

The main focus of the term Equitable TOD, is that all individuals residing near transit infrastructure, including low-income segments of the population, “reap the benefits of easy access to employment opportunities offering living wages, health clinics, fresh food markets, human services, schools and childcare centers” (Pollack & Prater, 2013, p. 4). Thus, equitable TOD is concerned with providing affordable housing as well as employment opportunities in close proximity to transit, and thereby minimizing the costs associated with these for lower-income individuals and as a result “generate healthier residents, vibrant neighbourhoods and strong regional economies” (Pollack & Prater, 2013, p. 4).

To counteract the potential negative aspects of TOD and foster equitable TOD, this thesis seeks to find strategies to ensure AH during TOD implementation in the context of Mexico City, or in other words to work towards a TOAH strategy.

3.3 TRANSIT-ORIENTED AFFORDABLE HOUSING

Mexico City suffers from a chronic lack of AH, yet it also suffers from a high rate of housing abandonment and vacancy. The main culprit of housing abandonment consists remote location of most social housing projects, usually located far from sources of employment, thus increasing the cost of transportation (Ireland, 2015). Distance to work is a major factor in housing abandonment, and according to the Federal Mortgage Society (SHF per Spanish acronym), an increase in one-kilometer distance from the urban center results in an increase of up to five hundred abandoned homes (Sociedad Hipotecaria Federal 2015, p.60). This constitutes a serious misallocation of resources and, moreover, creates negative environmental impacts associated with urban sprawl (OECD, 2015, p. 66) A quantitative approach to producing low-income housing, over one that focuses on quality and good urban location has rendered efforts in housing financing and subsidies wasteful and inefficient (Sociedad Hipotecaria Federal, 2015, p. 60). This demonstrates that it is simply not sufficient to simply provide and subsidize low-income housing, but that the location of housing projects are important, and public policy should be directed towards reflecting this.

A number of studies make a correlation between investments in transit and negative consequences such as gentrification and displacement of residents (Young 2009; Grube-Cavers and Patterson 2015; Jones 2015; Dawkins and Moeckel, 2014; Chapple 2009; Pollack et al., 2010). In other words, this is what Dawkins and Moeckel, (2014) refer to as “transit-induced gentrification”. In other words, having access to good quality transit is capitalized into the price of housing and as result there are often concerns that new investment in the transit infrastructure may potentially result in the displacement of low-income populations, the population that would benefit the most from enhanced access to transit” (Dawkins and Moeckel, 2014; 1). If investments in the transit infrastructure can potentially result in gentrification, it is highly necessary to ensure the provision of AH in close proximity to transit (Grube-Cavers and Patterson, 2015: 192). Therefore, it is important to ensure AH in TOD projects, or what will be referred to as a TOAH strategy.

Furthermore, the benefits between TOD and AH may be two-fold in the sense that TOD also serves as a means to make housing more affordable by reducing a household’s share of transportation cost, thus allowing the household income to be directed into other necessary costs (Soursourian, 2010). Finally, low-income populations are less likely to own a personal car, and therefore depend on public transportation for commuting (Soursourian, 2010). Thus

there are a number of benefits that can be attained by focusing on improving the quality, access and connectivity of public transit for low-income families.

TOD as an urban development strategy presents a great opportunity to link both housing and transportation in order to achieve a more sustainable and inclusive society (OECD 2015, p. 18). Fostering a TOD framework with an emphasis on social inclusion and equity provides a key opportunity to address a wide range of urban challenges in Mexico City, including segregation and fragmented urban developments. Focusing on ensuring AH in proximity to transit and in core areas of Mexico City can “lessens the pressure on the continued sprawl by encouraging urban affordability options, including rental units, close to public transit and at higher densities” (Department of Urban Studies and Planning MIT n.d., p. 16).

Considering the market factors that inhibit TOD and the fact that proximity to transit often results in increasing value of land, adding a requirement of affordable housing, further adds a layer of complexity to TOD. For this reason, effective policies, incentives and instruments need to be established so that TOD can achieve goals of social inclusion. Suzuki et al., (2003) state that,

“the ideal approach would be to coordinate low-income housing programs and transit development such as BRT so that beneficiaries of housing programs also benefit from improved mobility. In the long term, a socially inclusive and diversified community will enhance social capital, improve political stability, and increase economic viability”(p. 165).

Therefore, authorities need to focus on pursuing “affordable housing policies and develop incentives to ensure that affordable housing is built close to transit stops” (Suzuki et al., 2013, p.19). Without innovative strategies to ensure the inclusion of AH, many TOD developments can become unaffordable to LMI households, and potentially displace them (Center for Transit Oriented Development 2007).

Thus, encouraging a TOAH² strategy is a means to integrate affordable housing and transit and achieve a number of synergies to foster social benefits and achieve more equitable forms of development.

² For this thesis, Transit-Oriented Affordable Housing (TOAH) will be considered as below-market rate housing in current of future TOD developments, or in proximity to mass transit stations of corridors.

4 RESEARCH DESIGN AND METHODOLOGY

This thesis adopts a qualitative approach to research and primarily relies on secondary data both academic and practitioner literature, as well as primary data collected during interview sessions. The following section describes the research steps undertaken for this thesis.

(1) LITERATURE REVIEW (1)	Review of International Strategies (TOAH/AH and TOD/transit)	Analyze International Best Practices
(2) CASES STUDIES	3 Case Studies: The issue/ The Solution/ Lessons Learned	
(1) LITERATURE REVIEW (2)	Identify Challenges towards a TOAH strategy	Analyze Situation in Mexico City
(3) POLICY ANALYSIS	Review policy documents, planning instruments etc.	
(4) STAKEHOLDER ANALYSIS	(1) Identification & Listing (2) type of influence & institution	
(5) INTERVIEWS	10 semi-structured in-depth interviews with local stakeholders and experts	

Figure 6 Methodology

4.1 LITERATURE ANALYSES

Two separate literature analyses were conducted. The first consisted in a review of what has been researched and written regarding TOAH. Since literature on TOAH is limited, research was also conducted on the following: TOD and AH, preserving and maintaining AH in proximity to transit and in areas undergoing increases in land and housing prices, preserving and maintaining AH and in areas undergoing gentrification. The second literature analysis sought to identify the main challenges in implementing a TOAH strategy in Mexico.

4.2 CASE STUDIES

Three case studies were selected based on relevance to the topic of the research questions of this master thesis. The aim is to extract best practices and lessons learned to inform recommendations for the inclusion of TOAH in the context of Mexico City.

4.3 POLICY ANALYSIS

A policy analysis was conducted to gain an accurate portrayal of decision-making and project implementation in regards to AH and TOD in Mexico City. The policy analysis was conducted

in order to understand the political framework of the city, and understand the ways in which political action an interest form part of this city (Franz, 2015: 17).

The first step consisted in identifying relevant policy documents and planning instruments, and analysing these in relation to how they align to, or justify a AH and TOD in Mexico City. This analysis served to provide recommendation towards a TOAH strategy in Mexico City at the policy making level.

4.4 STAKEHOLDER ANALYSIS

Policies are adjusted by a number of stakeholders comprising individuals, institutions and organisations and therefore a stakeholder analysis aims to provide an understanding of the decision-making process within a particular political and institutional framework (Franz, 2015). The stakeholder analysis seeks to understand the issues of TOD and AH production in Mexico City and was carried out in two steps. The first step consists in identifying the stakeholders and categorizing them according to five relevant groups according to the method by Franz, (2015):

- 1) Public authorities
- 2) Public Private Partnerships
- 3) Private Sector
- 4) Individual and Civil Society
- 5) Academia and NGO

The second step of the stakeholder analysis consisted of mapping stakeholders based on political influences and type of institutional relevance based on a method by Franz, (2015).

4.5 SEMI-STRUCTURED IN-DEPTH INTERVIEWS

Following the stakeholder analysis, relevant stakeholders were selected for interviews. A total of ten of semi-structure in-depth interviews were conducted between October and December 2016. Interviews allowed for a qualitative interpretation and a more comprehensive and detailed understanding on the issue being studied as well as an understanding of issues that could not be found the other steps of the methodology. Interviewees can be divided into five categories: government, experts, academia, private sector representatives, and civil society. A list of interviewees is found in annex 1.

4.5.1 Conducting the interviews

During interviews, the research topic, questions and objectives were explained and interviewees were then invited to provide their opinion and comments on the topic. Questions depended on the stakeholder and vary greatly depending on the conversation and the type of interviewee, but were meant to elicit answer pertaining to the research questions and objectives. Interviewees were guided with questions or comments, either specifically targeting the research questions of the thesis, to elicit further comments, to reaffirm research findings or to direct the interviewee back to the core research topic. Some of these are listed on table 1. Interviews were recorded, transcribed and, in some cases, translated into English and subsequently analysed.

Table 1. Example of Interview Questions

TYPES OF QUESTIONS	GOVERNMENT	EXPERT/ACADEMIC	CIVIL SOCIETY	PRIVATE SECTOR
Directly related to the research question	So, you could say that there is a correlation between public investments or other investments (in urban infrastructure) and the issue of gentrification?	What would be the viable incentives for the development of social housing using the guidelines of TOD in Mexico City?	I am looking at strategies to make TOD more inclusive, to ensure that affordable housing is included. How do you think this can be achieved?	From the perspective of the private sector, which are the main legal administrative barriers, and the challenges in integrating social housing in urban centers where most of the high quality infrastructure is located. How can you integrate social housing into TOD projects?
Specific to a topic mentioned or researched	And what are the challenges of changing densities?	How do investments in public transport infrastructure affect the value of the land? Do you think TOD projects can lead to an increase in the price of land and housing?		
To elicit further comments or opinion	So, what kind of social processes are needed to balance these different interests? Are there public policies to deal with that?	In none of these projects, was there anyone who suggested integrating housing or social housing? What would be the	What do you think can be done to implement projects that allow local resident to benefit from this projects and make the city more inclusive?	What are the biggest obstacles?

		necessary instrument to integrate these into future projects?	
To reaffirm a comment or statement made	So, if I can make a quick summary of what you are telling me. It is that first, we must change public policies to encourage the development of affordable housing in central areas?		So basically, the solution would be to find mechanisms or instruments to unbundle the price of housing and land?
To reaffirm a research finding	How difficult is it to remove or circumvent the parking requirements policy? If I want to develop a project without parking drawers, can I do	One problem I see is that there is a great lack of communication between civil society and authorities, would you say that your organization works to fix this?	

Source: Self-elaborated

4.5.2 Analyzing the interviews

In order to analyse interviews, a first reading of transcriptions sought to gain overall insights from the perspective of different stakeholders. Next, a more careful reading was conducted, while using a code to isolate key passages from interviews (first level code). Afterwards, a second broader code was assigned to the passages identified from the first level coding to identify key topics discussed during interviews (second-level coding). An example of the Coding process is found in annex 1.3. This yielded 23 general topics for analysis.

5 RESEARCH ANALYSIS

The following section provides the research findings deriving from the methodology described in the previous chapter.

5.1 LITERATURE RESEARCH

There is a number of studies that make a correlation between investments in the transit infrastructure and negative consequences such as gentrification and displacement of residents (Young, 2009; Grube-Cavers and Patterson, 2015; Jones, 2015; Dawkins and Moeckel, 2014; Chapple, 2009; Pollack et al., 2010) and placing pressure on the stock of AH (Grube-Cavers and Patterson, 2015). Therefore, it is important to address these issues and find ways to mitigate potential negative consequence and find strategies for provision of affordable housing in close proximity to transit (Grube-Cavers and Patterson, 2015: 192). Pollack et al., (2010) provides the most comprehensive list of strategies and these are summarized in tables in annex section 12.4. The next section compiles different strategies for preserving housing affordability for low-income segments of society during TOD strategies. Following a literature review, these are divided into seven types of strategies based on Pollack et al., (2010) and with some modifications: (1) Affordable Housing Financing Tool, (2) Incentives for the Private Sector, (3) Collaborative Planning Tools, (4) Transportation Management Tools, (5) Coordination Mechanisms, (6) Inclusionary Housing Policies, and (7) Preserving Affordable Housing strategies.

5.1.1 STRATEGY 1: AFFORDABLE HOUSING FINANCING TOOL

New transit infrastructure can place pressure on the stock of AH (Grube-Cavers and Patterson, 2015) and bring about negative consequences for the housing market (Pollack et al., 2010). Therefore, in order to ensure a TOAH strategy, local governments need to devise affordable housing financing tools.

A strategy discussed by Pollack et al., (2010) consists of **Transit-Oriented Development Acquisition Funds**. A Transit-Oriented Development Acquisition Fund can be established to “acquire sites near transit for future development of affordable housing or to acquire and preserve existing affordable housing before planned transit projects drive up land and property values” (Pollack et al., 2010:43). These can also be utilized as land acquisition tools

to ensure sites for the development of affordable housing in proximity to new or future transit stations of corridors (Pollack et al.,2010:43).

Furthermore, a **housing trust fund** can serve as a designated source of public funds dedicated to creating AH (University of California Berkeley, 2017). Housing Trust Funds can also be used to acquire sites for affordable housing projects in proximity to current or future planned transit stations (Pollack et al., 2010: 43).

Another means of financing TOAH is through **cross-subsidies**. These can take the form of **linkage fees or programs**, in which fees are charged to new developers for new development (such as new commercial developments), and subsequently revenues are placed into an affordable housing trust fund to ensure the availability of AH (University of California Berkeley, 2017). This can provide a number of opportunities between transit and housing agencies. Furthermore, when implementing TOD projects, **value capture** mechanisms provide an excellent tool to capture the value brought about by TOD and direct it towards including or maintaining housing affordability (Great Communities Collaborative, 2007, p. 4).

Another means found in the literature to support TOAH is establishing a specific TOD Fund. Soursourian, (2010) proposes a number of innovative ways to finance AH in the event of new TOD strategies or new transit investments. Soursourian, (2010) discussed establishing a **Unique TOD Fund** as a tool to finance as well as to maintain AH during new transit investments (Soursourian, 2010, p. 23). A TOD fund can be devised as a “financing mechanism allowing for the acquisition and preservation of affordable housing along existing and new transit corridors” and this can be done by combining local government funds as well as funds from elsewhere (Soursourian, 2010, p. 23). A TOD Fund can also be designed to address the issue of maintaining housing affordability once the subsidy has ended (Soursourian 2010: 23).

Soursourian, (2010) also mentions **Non-profit led TOD** as a means of financing affordable housing in proximity to transit through a non-profit led strategy. Soursourian, (2010) stipulates that “local non-profits can promote community development around transit stations and integrate affordable housing, commercial space, and social services with public transportation in a way that benefits local residents” (Soursourian, 2010, p. 24).

Finally, a salient example can be found in the Bay Area in San Francisco which has specifically established a USD 50 million **Transit-Oriented Affordable Housing Fund** to finance

affordable housing in proximity to transit stations in the Bay Area, with the aim of fostering equitable TOD in the area, through a public private partnership (Seifel Consulting Inc. and ICF International, 2013). Developers can access this flexible fund to acquire capital to develop AH near transit (Seifel Consulting Inc. and ICF International, 2013).

5.1.2 STRATEGY 2: INCENTIVES FOR PRIVATE SECTOR DEVELOPERS

The private sector plays an important role in the production of housing and therefore it is crucial to ensure incentives to increase the production and preservation of affordable housing near new transit or TOD projects.

Focusing on increasing densities around transit corridors and stations can increase the stock of available AH. Therefore, **density bonuses** for private developers can be a means to achieve this. These can allow market rate housing developers to build higher-density housing than the zoning or land-use would allow, in exchange for having a certain portion of their units offered at affordable prices (University of California Berkeley, 2017).

The literature also points to a number of fiscal incentives that can also encourage TOAH. Pollack et al., (2010) mentions **Low-Income Housing Tax Credits (LIHTC)** as well as a **Corridor-Based Tax Increment Financing Districts**. A **Low-Income Housing Tax Credit** consists of putting aside tax credits for specific projects. This can serve to finance AH in areas that are close to transit (Pollack et al., 2010). **Corridor-Based Tax Increment Financing Districts** consists in applying an incrementing tax system to a specific area or geographic location, namely in a transit corridor or TOD district. This creates a transit corridor area in which revenue sharing is made possible and can serve to increase revenue for TOAH (Pollack et al., 2010).

5.1.3 STRATEGY 3: COLLABORATIVE PLANNING TOOLS

Pollack et al., (2010) discuss devising **Comprehensive Transit-Oriented Development Strategy**, in which communities collaboratively develop their own “comprehensive strategies to preserve existing affordable housing, and produce additional affordable housing in neighbourhoods near existing or planned transit stations and then follow up to ensure their implementation”(Pollack et al., 2010, p. 37). Similarly, **Transit Corridor Planning** can shape more equitable planning by ensuring proactive community developments and encourage TOD near existing or future transit stations. Communities can plan effective implementation of these strategies, and ensure all relevant stakeholders and actors come

together to voice their opinions and interests. These are then submitted to local planning agencies for approval, and ensure the opinion and interests of local stakeholders (Pollack et al., 2010: 41).

Community Benefit Agreements (CBA) are increasingly being utilized in TOD projects, as they serve as viable means to address some of the unique challenges posed by these types of projects (Pollack et al., 2010 and Soursourian, 2010). CBAs can function as community-based organization that “work together to ensure that a broad cross-section of community residents participate effectively in local land use planning efforts around transit stations” (Pollack et al., 2010:39). A CBA consists of “a private, legally-binding contract between a developer and a community coalition that codifies the commitments the developer has made regarding how the project will benefit the surrounding community” (Soursourian, 2010, p. 6)”. CBAs can become legally binding and promote community engagement and involvement (Pollack et al., 2010, p. 38).

Community involvement is important in planning initiatives and so government agencies can find ways to ensure “broad-based community participation in planning for both transit and future development in neighbourhoods along the transit corridor” (Pollack et al 2010, p. 39). An example of these collaborative processes is the **Central Corridor Funders Collaborative** discussed in the case study section.

5.1.4 STRATEGY 4: TRANSPORTATION MANAGEMENT TOOLS

The literature also points to various ways in which transportation management tools can be utilized to ensure a greater supply of TOAH. Pollack et al., (2010) point to the fact that neighbourhoods with new transit investments, not only experience increase in rents and housing, and attract higher income residents, but higher-income residents are also more likely to own a car. Therefore these tools can mitigate this risk, yet also ensure that the residents who are less likely to own vehicles, and therefore mostly benefit from transit, remain in proximity to these new transit investments (Pollack et al., 2010, p. 35). A means to achieve this is by **reducing parking requirements for residential development**. Reducing parking requirement not only leaves room for a higher number of units, but also reduces the cost housing production (ITDP n.d.), thus allowing a greater opportunity for a TOAH strategy. While a TOD strategy can reduce the need for parking space, reducing parking requirements for new housing developments can make housing more affordable as well as free space for more units (Pollack et al., 2010, p. 52).

5.1.5 STRATEGY 5: COORDINATION MECHANISM

It is imperative to consider the complexity of TOD projects and the variety of stakeholders and actors involved in these processes. Therefore, in order to ensure an effective strategy, coordination mechanisms between transportation, housing agencies and other relevant stakeholders need to be put in place. Pollack et al., (2010) mention **Coordinated Planning by Local Governments and Transit Agencies**. This can take the form of planning grant programs that would require “local governments to coordinate their planning efforts with those of transit agencies” (Pollack et al., 2010, p. 40).

One the other hand, this can also take the form of **Transit Incentives for Housing Developments**, where transit agencies provide transit passes for developers to pass on to residents (Pollack et al., 2010, p. 51). This would increase ridership for the transit agencies and also benefit the housing developers as well as the residents, and also discourage private vehicle use.

Furthermore, coordination between agencies can be enhanced by **Incorporating Affordable Housing in Joint Development**. Through joint developments, transit agencies can increase their ridership by producing affordable housing with TOD policies that would encourage AH production in proximity to transit (Pollack et al., 2010, p. 48).

An example of effective coordination between a transit and housing agency will be discussed in the case study section with the Case Study **Metrovivienda: Connecting Affordable Housing to Mass Transit**.

5.1.6 STRATEGY 6: INCLUSIONARY HOUSING POLICIES

There are a number of ways to ensure housing affordability in proximity to transit for a range of incomes. A study by the Great Communities Collaborative (2007) provides a number of lessons to ensure TOD achieves goals of social inclusion. **Inclusionary housing policies** aim to increase the stock of AH at a minimal cost to the city, and in the same neighbourhoods as market-rate housing (Great Communities Collaborative, 2007). These policies require housing developers working with market rate housing (for sale or rent) to ensure that a portion or percentage of the housing produced remains affordable (Great Communities Collaborative, 2007). This can be achieved by adopting **Inclusionary Zoning**. Inclusionary housing usually takes the form of a zoning requirement placed on developers of new market-rate housing (Great Communities Collaborative, 2007). This strategy can ensure “communities with transit stations can adopt inclusionary zoning requirements to ensure

that a modest share of newly-constructed rental and homeownership units in the area around the station are affordable" (Pollack et al., 2010:47).

5.1.7 STRATEGY 7: PRESERVING AND PROTECTING AFFORDABLE HOUSING

Although it is highly important to increase the production of affordable housing in proximity to transit, it is equally, if not more important, to ensure maintaining housing affordability in the long-run to ensure families are not displaced following transit investments.

In many cities across the United States, local governments are struggling to ensure the production of low-income housing in neighbourhood experiencing an increase in the price of housing. The report by Yager et al., (2016) mentions three strategies to create and preserve AH in gentrifying areas, as well as ways to assist tenants at risk of displacement. Although the literature is not directly linked to TOD nor transit specifically, it provides insight into strategies to increase the stock of AH and mitigate displacements caused by increased land and housing values (Yager et al., 2016).

These include:

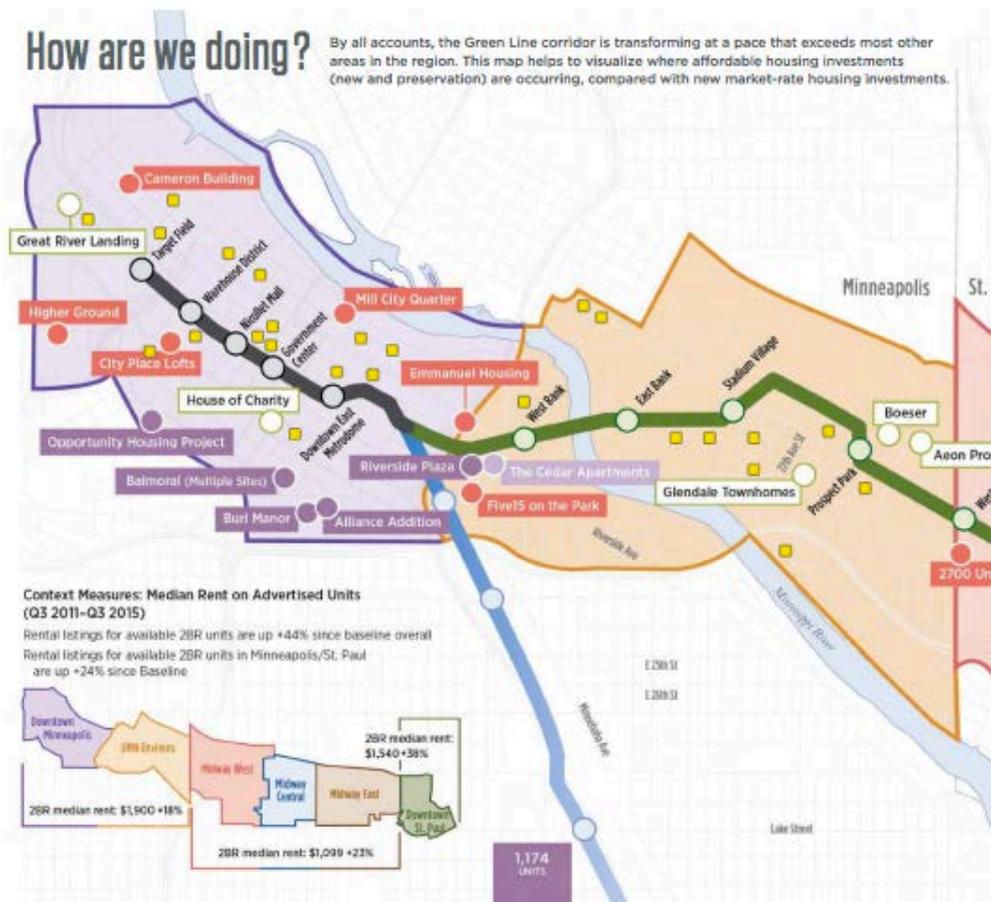
1. Long-term leases of city-owned land that include an affordability requirement.
2. The prioritized use of subsidies for new construction and preservation of housing in gentrifying areas.
3. Mechanisms to restrict use after sale: deed restrictions or agreements that limit the use of formerly city-owned land to affordable housing.
4. Community Land Trusts: cooperatively owned entities that hold formerly city-owned land (and other land) in trust to maintain affordable homeownership or rental properties (Yager et al., 2016).

CONCLUSION: There are a number of strategies found in the literature to produce and preserve TOAH and mitigate negative impacts of TOD or new transit investments. Although there are a number of options available to ensuring housing affordability in conjunction with transit, it is important to keep in mind that strategies need to be adapted to each specific scenario. In addition, strategies need to find the adequate actors, support and achieve the appropriate amount of synergies.

5.2 CASE STUDIES

The next section provides three case studies further illustrate best practices in order to draw lessons, and subsequently elaborate a set of recommendations for a TOAH strategy in Mexico City.

5.2.1 Minneapolis (USA) - Corridor of Opportunity: A Funders Collaborative for Housing Affordability



Source: The Big Picture Project, 2016

Figure 7. Visualization of Affordable Housing Investments in the Green Line Corridor

THE ISSUE. The Metro Green Line, also formerly known as the Central Corridor, consists in a light rail line connecting central districts of Minneapolis and Saint Paul and the University of Minnesota. Although a new transit line certainly promised to provide new opportunity and benefits for residents, it also brought up number of concerns regarding AH around the corridor, as well as regarding susceptibility to displacement. Strong concerns were voiced

surrounding the announcement of this new transit line (Central Corridor Funders Collaborative, 2016a).

THE SOLUTION. To mitigate this, the Central Corridor Funders Collaborative was established and provides an example of an innovative form of collaboration to ensure equitable and inclusive developments resulting along the Green Line Light Rail Transit (LRT), which also became known as the “corridor of opportunity” (Central Corridor Funders Collaborative, 2016a).

Between 2007 and 2016, the Central Corridor Funders Collaborative formed a group to establish ways to maximize the potential of the new LRT line and ensure it brought benefits for all local residents. The rationale behind the collaborative was an intrinsic belief that the new LRT, along with the adequate strategies and goals, holds the potential to bring many benefits for a neighbourhoods along the new corridor that is also representative of the identity of the community and its many opportunities (Central Corridor Funders Collaborative, 2016a).

The collaborative focused on four areas of efforts, and one of these consisted in ensuring access to AH. The collaborative held the belief that ensuring AH around the new LRT, and connecting low-income communities to jobs, services and education, would further enhance economic wellbeing. The Collaborative supported a working group as well as several other significant investments to support new AH development opportunities, through land acquisition, neighbourhood stabilization, and greater understanding about the impacts of transit on housing and development (Central Corridor Funders Collaborative, 2016a).

To ensure AH, the Funders Collaborative made efforts to preserve and expand the stock of AH and limit involuntary displacement by focusing on four aspects:

1. Keep housing options available to residents at all income levels, now and in the future.
2. Preserve existing affordable housing as much as possible.
3. Minimize involuntary displacement of existing households.
4. Encourage policies and incentives to include affordable housing units as part of new mixed-income development (Central Corridor Funders Collaborative, 2016b).

Following the construction of the LRT line, the Collaborative also commissioned a Tracker to assess if the initial goals were achieved and to continue to monitor that the LRT achieved

targets of creating opportunities and maximizing benefits for most residents. The tracker provides measures and indicators that need to be monitored over the long term, and encourages groups working in the Corridor to continue monitoring progress using available measurement tool (Central Corridor Funders Collaborative, 2016b).

The final report published by the Central Corridor Funders Collaborative June 2016 entitled “About Community, Not A Commute” provides a summary of the project, as well as a number of lessons that can be adapted and transposed to other communities facing similar situations. The central focus of this report is the notion that AH is vital to achieve economic wellbeing and to ensure prosperity for lower-income families. Fundamental to this is finding balance between competing interests of attracting investments and resisting displacement (Central Corridor Funders Collaborative, 2016a).

LESSONS LEARNED. Early on, the Funders Collaborative of the Metro Green Line corridor understood that transit is not built in isolation, and that it is necessary to consider the history, culture and community “beyond the rail” (Central Corridor Funders Collaborative, 2016a). Like in most projects, there was a real concern that the concerns of the community would delay or potentially cancel the project. However as a whole, they also understood that there is only one chance to get things right, and therefore planning and cooperation are key in meeting everyone’s demands and achieving the maximum benefit from investments in the transit infrastructure.

In addition, the Tracker is an example of long term monitoring and the fact that ensuring AH around transit involves a long-term action. To sum up, this example demonstrates that in order to ensure AH alongside the development of mass transit there needs to be: (1) collaborative action (2) need to plan ahead (3) monitor developments over the long term (Central Corridor Funders Collaborative, 2016a).

5.2.2 Bogota, Colombia - Metrovivienda: Connecting Affordable Housing to Mass Transit

THE ISSUE. Like many cities in Latin America, Bogota faced a number of problems in regards to providing AH to some of the most vulnerable and underprivileged segments of society. Furthermore, it has long been a reality that some of the lowest-income segments of society of Bogota tend to spend a high portion of earnings on commuting (about 20 per cent of their income) not to mention long and arduous lengths of time (Suzuki et al., 2013), resulting in a high degree of social segregation. Thus, Bogota needed to deal with both a quantitative and qualitative housing deficit, as well as ensure better transportation options to its low-income residents.

THE SOLUTION. As a response to this housing shortage, Metrovivienda was founded in 1999, as an AH program with the goal of connecting low-income housing to the TransMilenio BRT system, and to improve transit for lower-income segments of society by building housing sites, as well as social services and facilities near TransMilenio stations. Thus Metrovivienda, sought to address housing needs of marginalized communities in an innovative way by integrating transportation and land use (Suzuki et al., 2013).

The main targets of the program consisted in lower-income residents (in the case of Bogota, defined as those earning less than four times the minimum salary set by the government) as well those residing on illegal subdivision. By connecting AH to transit, Metrovivienda sought to improve the livelihoods for underprivileged groups of society by increasing their accessibility to transit, and reducing transportation costs as well as time (Suzuki et al., 2013; p.120) and thereby reducing socio-spatial segregation.

Metrovivienda operated as a private-public partnership (PPP) until 2007, and currently operates as a partnership with local landowners. The program consists in providing “serviced land on which private developers could legally construct affordable housing for people who could not otherwise afford formal shelter” (Suzuki et al., 2013, p. 120). Landowners are provided with a subsidy on the difference of the cost needed to develop and service the area, in order to accelerate the rate of production of social housing, produced in better areas with access to parks, urban services and public transport (Gilbert, 2009, p. 428). In the case that landowners oppose or refuse to participate, the government has the power to

expropriate their land (Suzuki et al., 2013, p. 120). In order to prevent the issue of land speculation; land prices freeze the moment a project is approved.

Although Metrovivienda is a good example of linking low-income housing to mass transit, it also faces the challenge of both finding affordable land near transit, and financing the program (Suzuki et al., 2013, pp. 166-167). In addition, it faced significant opposition in its initial stages, as well as a number of legal, strategic and implementation shortcomings (Gilbert, 2009, p. 427). Despite these challenges, it provided a large number of housing units to lower income families, and achieved its goals of reducing household income spent in transportation. Before relocation, residents spent USD1.40 a day on average for commuting. After moving, their daily commuting costs fell to USD0.80, as a result of increased proximity to the TransMilenio stations ” (Cervero, 2005 in Suzuki et al., 2013, p. 120).

As of 2012, the aim of Metrovivienda became to manage and provide land to develop and foster social housing, with special emphasis in the greater central area, and contribute to reduce socio-spatial segregation, to mitigate urban sprawl and promote a dense and compact city (Alcaldia Mayor de Bogota D.C. n.d., p. 3). It will focus especially on developing social housing in underutilized areas of the city along with improved public spaces and public transportation systems (Alcaldia Mayor de Bogota D.C. n.d.).

LESSONS LEARNED. This case study provides a good example of transit-linked AH achieved by coordinating efforts in public housing along with a transit agency (TransMilenio BRT system) (Suzuki et al., 2013). Since effective TOD implementation is a multi-stakeholder and multi-actor process it requires coordination and mechanisms to oversee coordination of land-use, housing and transportation. Therefore, this case study provides good examples of institutional coordination, since a Metrovivienda official sit on the TransMilenio board, they can also be strategic about ensuring the location of Metrovivenda programs are located and connected to their BRT sites, and ensure the interests of different areas are met.

Nowadays, Metrovivienda seems to have understood the importance of integrating social housing into better urban locations, and connecting low-income housing to transit as a means of creating more inclusive, sustainable and equitable urban spaces, and endorsing once again the validity of TOD under a well-planned, inclusive and coordinated effort.

5.2.3 Rio de Janeiro, Brazil: The Urban Insertion Assessment Tool to Assess Mass Social Housing Projects

BACKGROUND. Since 2009, Rio de Janeiro has been receiving a considerable amount of investments in both, the transit and housing sectors (ITDP 2015). According to a study by ITDP (2015) Rio de Janeiro counts 150 km of BRT corridors planned for the near future, and projecting 2 million passengers per day by 2017. Furthermore, the subway system is expanding and the suburban commuter rail system is undergoing renovations. These investments in the transportation network have created a favourable environment for implementing a TOD strategy (ITDP 2015). Therefore, it is a crucial moment to devise an effective strategy to enhance the impact of TOD and ensure strategies to maintain housing affordability in close proximity to transit.

In regards to social housing initiatives, Minha Casa Minha Vida (MCMV) is Brazil's social housing program launched by President Lula da Silva in 2009, to address the chronic shortage of low-income housing (Cunha Linke n.d.). Although the MCMV program has been relatively successful in producing a large number of social housing units, and that the government is planning to produce further units to accommodate over 25 millions people by 2019, the program is facing an increasing amount of criticism especially in regards to the remote locations of most of these housing units.

THE ISSUE. Despite MCMV's achievements in housing and a number of new investments in the transit infrastructure, the "link between affordable housing and affordable access and mobility appears to have been missed" (ITDP 2015, p. 7). Particularly worrisome, is a lack of integration and coordination between housing and access to mobility, and the location of many of these housing projects has been a major concern and resulting in a number of negative externalities and bearing a number of high costs on society, as well as exacerbating socio-spatial segregation (ITDP Brasil n.d., p. 262). In other words, the sites provided for these residential units are failing to provide access to urban opportunities in the metropolitan regions of Brazil. Residents of MCMV projects sometimes travel up to four hours with multiple transfers to access employment or other urban services (Cunha Linke, n.d.). In addition, due to the remote locations of these projects, "number of favelas in the cities almost doubled from 162 to 283, providing informal housing solutions born out of residents' need to be closer to work" (Cunha Linke, n.d., p. 28). This proves that dealing with a housing deficit is not simply about creating a large number of housing units for lower-income families or as Cunha Linke, (n.d) explained:

“Government-sponsored affordable housing should not be conceived in isolation, especially at the scale of the MCMV program, which transforms the social and spatial dynamics of so many urban dwellers. As important to the long-term sustainability of such programs as water, electricity, and sanitation is a well-connected location within the urban perimeter” (Cunha Linke, n.d.:28). Furthermore, due to the size and scope of the MCMV program it is having significant tremendous impact of the metropolitan areas of Brazilian cities, and largely contributed to reinforcing urban sprawl (Moura, 2016).

Table 2. Example of Recommendations to Improve Urban Insertion of MCMV Projects based on TOD Principles

Compact Urban Location	<ul style="list-style-type: none"> Ensure that MCMV projects are located in urban areas with complete infrastructure, services, and resources including jobs accessible on foot and that they counteract rather than reinforce the patterns of social-spatial segregation in cities.
Public transport	<ul style="list-style-type: none"> Locate future development in proximity to existing quality transport with reliable and frequent services. Improve transport service to existing MCMV projects not well served.
Complete land use mix	<ul style="list-style-type: none"> Retrofit isolated and single-use development to turn them into complete, balanced, vibrant and partly self-sufficient neighborhoods.
Walk, cycle & transit oriented Design	<ul style="list-style-type: none"> Design new projects, retrofit and complete existing ones, to ensure walkability and cycleability within transit accessible neighborhoods.

Source: ITDP, 2015

THE SOLUTION. In response to the growing criticism of MCMV social housing projects, ITDP Brazil (along with Ford Foundation and the Lincoln Institute of Land Policy,) has developed the **Urban Insertion Assessment Tool** in order to set the minimum standards for housing developments, in terms of location, implementation and design, with the aim of promoting improved social interactions, increase pedestrian traffic, improve access to essential services, as well as accessibility to public transportation and equipment (Cunha Linke, n.d.). The aim is to measure developments in terms of the principles of sustainable urban transportation.

The criteria to assess MCMV’s housing projects were set by professionals, developers as well as public administrators and consist of a set of minimum quality standards regarding the location and surrounding area of the housing project. The goal is for this instrument to serve as a simple evaluation tool for officials and responsible for evaluating MCMV as well as to guide developers (ITDP, Lab Cidade, Ford Foundation, n.d.).

According to an interview with Iuri Moura of ITDP Brazil, the tool was not only successful in creating awareness on this issue, but was positively received by the Ministry of Cities of the National Housing Secretariat and will probably help better locate future MCMV programs:

“after three years of working on this, in 2016, we are now able to influence the national policy. We provided recommendations for the city government, but the idea is that these parameters be included in the specifications of the MCMV program. That they be included as a requirement for approval of the project by the Ministry of Cities and the Caixa Economica, which finances housing projects. There was national decree, and the ministry of housing published this tool in its website and communicated it to other including the mayor, and so it was officially launched, and I think this is a very good start” (Moura, 2016).

LESSONS LEARNED. Establishing an Urban Insertion Assessment Tool and establishing parameters and guidelines to assess social housing projects is a good way to ensure that mass social housing programs consider the location of their projects. It is also an effective way of creating awareness on the issue of inserting social housing within urban areas. The challenge, however, potentially lies in ensuring that the assessment tool is utilized in a mandatory manner by social housing programs. Since the production of social housing in Mexico City led by INFONAVIT is comparable to the situation in Brazil, the Urban Insertion Assessment Tool provides an excellent best practice case study that could be replicated in Mexico City.

5.3 CONCLUSION

These three case studies provide valuable insights into strategies to work toward a TOAH strategy, and improve coordination between AH and TOD. A Funders Collaborative to Ensure Housing Affordability in Minneapolis describes a good practice of a community led initiative to plan ahead for equitable developments around a transit corridor and also establishing a means to monitor developments. Metrovivienda in Bogota Colombia provides an example of a conscious effort to ensure transit-linked social housing and bringing lower-income segments of society closer to mass transit through effective inter-agency coordination. The final case study portrays an innovative way of addressing the quantitative rather than qualitative focus on producing social housing and an evaluation tool that can be used to ensure social housing is connected to the urban fabric and into TOD developments.

5.4 SITUATION IN MEXICO CITY

The following section provides an assessment of the current situation in Mexico City under a framework of assessing the feasibility of a TOAH strategy. The aim of this section is to analyze the context and formulate recommendations that are fitting to the local situation. This section will look into the policy framework; provide a stakeholder analysis along with an analysis of interviews with different stakeholders. This section will also discuss the main challenges in working towards a TOAH strategy in Mexico City.

5.4.1 POLICY ALIGNEMENTS

In Mexico City, transit-oriented affordable housing can be justified within the context of a number of policy documents and planning instruments, at the federal and state level as well as at the level of the different *delegaciones* within Mexico City.

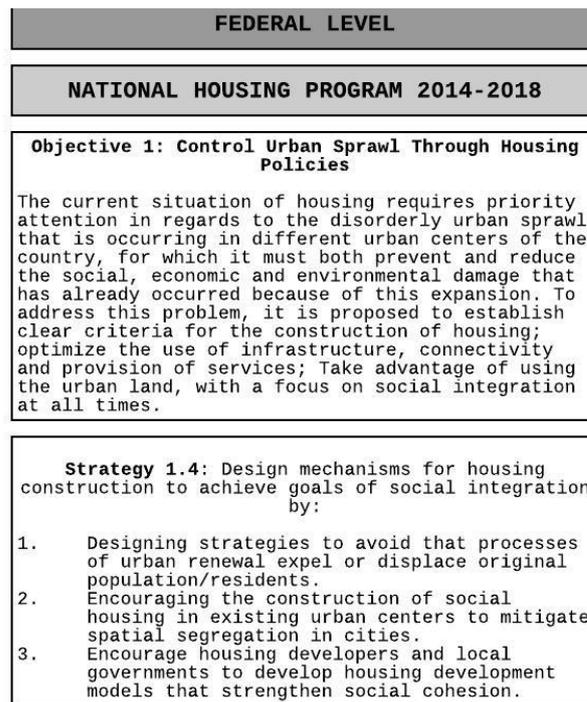
At the Federal Level, a TOAH strategy is justified through the National Development Plan (2013-2018), the National Climate Change Strategy Vision (10-20-40), and the National Urban Development Programme (2014-2018). This is shown in figure 7.

FEDERAL LEVEL		
NATIONAL DEVELOPMENT PLAN 2013-2018	NATIONAL CLIMATE CHANGE STRATEGY VISION (10-20-40)	NATIONAL URBAN DEVELOPMENT PROGRAM (2014-2018)
Goal 2 Inclusive Mexico/STRATEGY 2.5.3: Achieve better inter-institutional coordination that guarantees the concurrence and co-responsibility of the three orders of government for the sustainable development of the territory, as well as for the promotion of regional, urban, metropolitan and housing development.	Strategic Axis M3/Line of action M3.1: Increase the controlled and efficient use of the territory by reducing urban sprawl, and ensuring access to intra-urban land, promoting mixed-use and vertical buildings, favoring densification rather than opening new reserves in the periphery and define the growth limits of cities.	Objective 4/Strategy 4.2/Line of action 1: Foster adoption of transit-oriented development as an urban model for planning of Mexican Cities.

Source: Self-elaborated based on ITDP (n.d)

Figure 7. Federal Level Policies Aligning with a Transit Oriented Affordable Housing Strategy.

Efforts to foster AH within TOD are also justified under the National Housing Program (2014-2018) as depicted figure 8.



Source: Self-elaborates based on Comision de Vivienda, 2016

Figure 8. Alignments with National Housing Program (2014-2018)

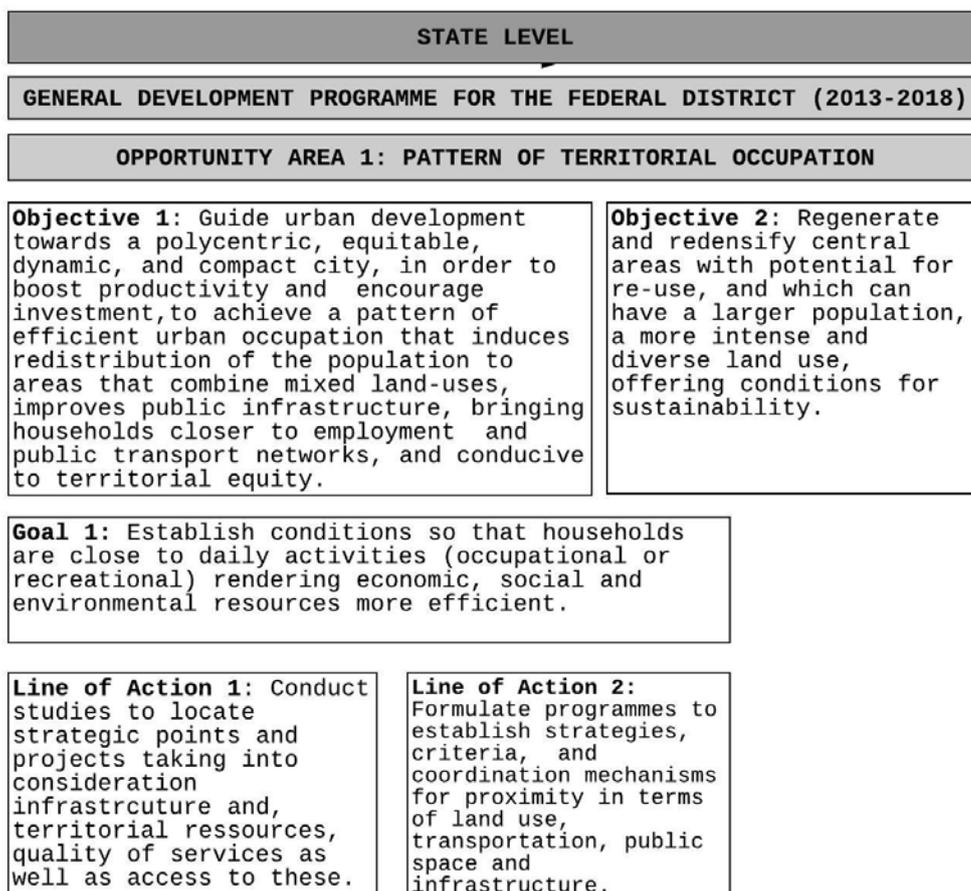


Figure 9. Alignments with the General Development Programme for the Federal District (2013-2018)

At the State Level, some of the planning instruments, such as the General Development Program for the Federal District (2013-2018), align with the goals as shown in figure 10.

Furthermore, the General Program For Urban Development In Mexico City (PGDUCDMX) is the long-term planning instrument that determines the policies, strategies and urban development actions for Mexico City, as well as the basis for issuing the subsequent planning programs (“Plan CDMX: La Ciudad de Queremos,” n.d.). In this instrument, TOAH can be said to be specifically supported under Axis 2, line of action 2.1.1 stating the need to promote **social housing in areas with infrastructure, services, and connected to the transportation system through the application of financial, legal, administrative and fiscal instruments** (“Plan CDMX: La Ciudad de Queremos,” n.d.).

STATE LEVEL	
THE GENERAL PROGRAM FOR URBAN DEVELOPMENT IN MEXICO CITY (PGDUCDMX)	
AXIS 1: Integrated, Connected and Quality Urban Territory	AXIS 2: Equal Opportunities for Urban Development
1.1 Define a compact and dense city structure based on the public transport systems and potable water feasibility.	2.1.1 Foster social housing in areas with infrastructure, services, and connected to the transportation system through the application of financial, legal, administrative and fiscal instruments.
1.1.1 Integrate redensification and mixed land-use policies, in proximity to public transport corridors, and areas well-served by water and drainage infrastructure.	2.1.2 Encourage redevelopment of underutilized urban areas located in proximity to transportation systems and employment, with equitable access to facilities and services.

Source: Self-elaborated based on “Plan CDMX” (n.d.)

Figure 10. Alignments to the PGDUCDMX

In addition, there are a number of local level instruments within Mexico City (Federal District) with potential to foster further TOD and include provision of AH in specific areas. These include the Partial Urban Development Program (PUDP per Spanish acronym), Strategic Management Area (AGE per Spanish acronym), and Cooperative Action System (SAC per Spanish acronym) (Department of Urban Studies and Planning MIT, n.d.). These instruments can be leveraged to foster development in specific areas, and achieve specific goals and in some cases counteract administrative barriers by being subject to specific legal and regulatory as well as financial frameworks. Such as these instruments allow a certain

degree of flexibility that can be leveraged to introduce AH utilizing TOD guidelines in specific areas in Mexico City (Department of Urban Studies and Planning MIT n.d.)

5.4.2 CONCLUSION

Following a policy analysis, it becomes evident that there are number of policy instruments that justify a TOAH strategy in Mexico City. However, the reality is that there is neither comprehensive strategy nor effective incentives to specifically promote TOAH.

5.5 STAKEHOLDERS ANALYSIS

The Stakeholder analysis is intended to depict the interrelated forces at play on developing strategies of implementing TOAH in the context of Mexico City, and to analyse the roles of different stakeholders to understand how each one can work towards achieve a transit-oriented affordable housing strategy.

Table 3 provides a list of different actors that are involved in strategies to foster TOAH in the context of Mexico City, and describes the instruments they utilize, the steering direction (whether it is top-down or bottom-up), and their motivations for acting.

Table 3. Listing of Stakeholders

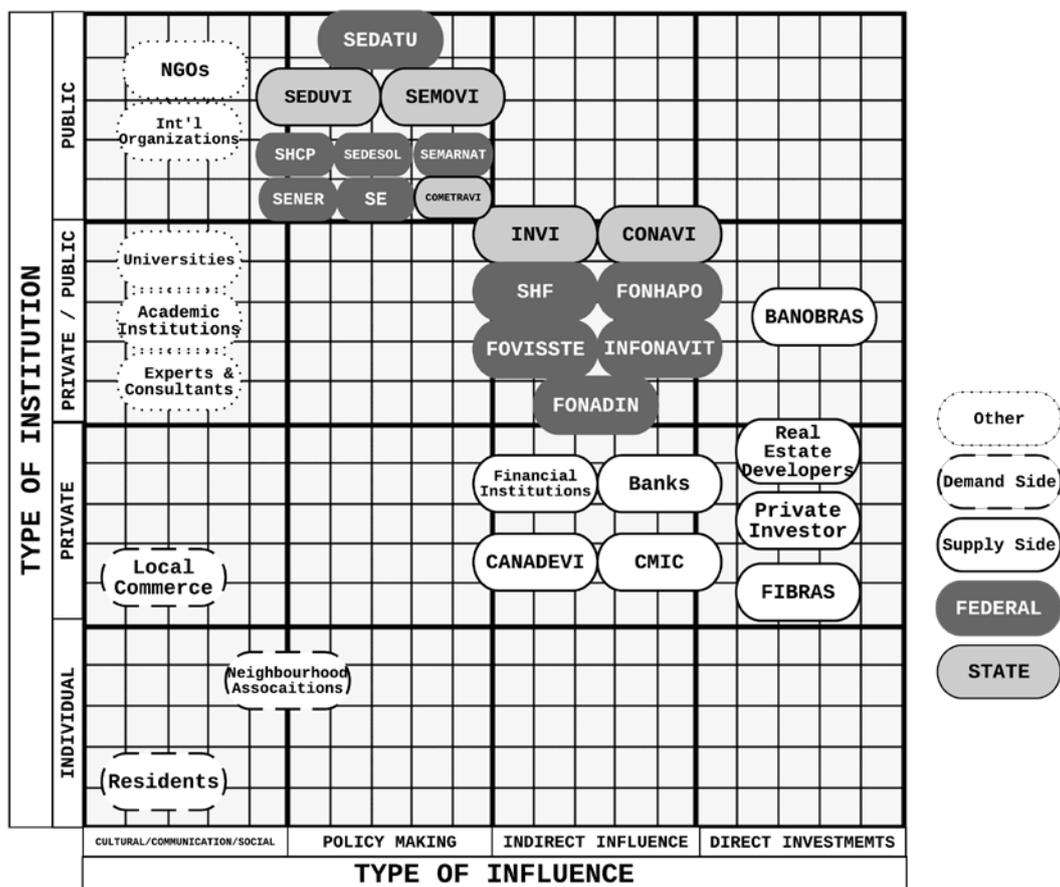
	PUBLIC AUTHORITIES	PUBLIC FINANCIAL INSTITUTIONS	PRIVATE SECTOR	INDIVIDUALS	EXPERTS
ACTOR	FEDERAL LEVEL	FEDERAL LEVEL	REAL ESTATE DEVELOPERS	NEIGHBORHOOD	Universities
	SEDATU	FOVISSTE	PRIVATE INVESTORS	ASSOCIATIONS/PLATFORMS	Academic Institutions
		INFONAVIT	CANADEVI	RESIDENTS	Int'l Organizations
	STATE LEVEL	SHF	FIBRAS	LOCAL COMMERCE	Experts & Consultants
	SEDUVI/SEMOVI	FONHAPO	CEMIC		NGOs
	STATE LEVEL	BANOBRAS			
		CONAVI			
		INVI			
INSTRUMENTS	Planning Tools	Funding - Credits	Monetary investment	Social Processes	Advocacy
	Zoning-laws	Monetary Investment	decisions	Resistance	Visibility
	Norms	Decisions		Advocacy	Int'l Agreements
	Legal Instruments	Image			Network of Influence
		Institutional Programs			
STEERING	Top-down	Top-down/Bottom-up	Bottom-up/Top-Down	Bottom-up	Bottom-up

	PUBLIC AUTHORITIES	PUBLIC FINANCIAL INSTITUTIONS	PRIVATE SECTOR	INDIVIDUALS	EXPERTS
MOTIVATION	Objectively	Objectively	Building permission	Individual interests	Interest
	Influence Demographic factors	Influence Demographic factors	Return on investments	Perception of how to live	Influence
	Political/Gain votes	Return on investments	Sector positioning, Image branding	Quality of life	Social objectives
		Valorization of location	Corporate image	Return on investments	

Source: Self-elaborated based on Stakeholder Analysis by (Franz 2015)

Subsequently, figure 11 displays a stakeholder analysis based on level of influence as well as their institutional influence.

At the Federal Level, Secretariat of Agrarian, Territorial and Urban Development (SEDATU per Spanish acronym), can play an important role in achieving a TOD strategy within Mexico City (ITDP n.d.,p. 85) SEDATU is responsible allocating funds, subsidies and grants to coordinate mobility and housing and ensure social housing in urban centres. SEDATU offers subsidies for social housing and grants to support construction of social housing. This could be aligned to include provisions for AH in proximity to transit and to promote density (ITDP n.d., p. 85).



Source: Self-elaborated based on method by Franz (2015)

Figure 11 Stakeholder Analysis Based on Type of Institution and Influence

The Secretariat of Communications and Transportation SCT, Secretariat of the Environment and Natural Resources (SEMARNAT per Spanish acronyms) and the Secretariat of Finance and Public Credit (SHCP-per Spanish acronym) can also play a role at the Federal level in regards to devising policies and instruments to encourage a TOAH strategy in Mexico City.

At the state level, SEDUVI is the main secretariat in regards to implementing a TOD strategy. This secretariat is in charge of preparing the General Urban Development Programme For The Federal District (PGDUDF) (2013-2018) (ITDP, n.d.). Furthermore SEDUVI can play a key role in achieving further integration between AH and TOD since it has the power:

“to design and implement the necessary urban development instruments to promote re-densification of the city around mass transport. On the other hand, it can design housing programs and foster investments in real estate, which will help promote the efficient location of the built properties” (ITDP n.d., p. 83).

Furthermore, the Secretariat of Mobility (SEMOVI as per Spanish acronym) has the power to design and implement policies and programs pertaining to mobility. SEMOVI can foster a TOD strategy through its ability to make policies, regulations and designs as well as establish the criteria pertaining to mass transportation and the location of transit stops, and to promote corridors that would enable densification. Furthermore, SEMOVI also has the regulatory power to manage public parking, an important issue when it comes to TOD strategies (ITDP n.d.: 83). SEMOVI’s instrument consists in the Integral Mobility Program (2013-2018) (PIM for its Spanish acronyms) through strategic axis number 6 stipulating the need to foster TOD in Mexico City (Órgano de Difusión del Gobierno del Distrito Federal, 2014). Other entities that can make important provisions for a TOAH strategy in Mexico City include the Legislative Assembly of Mexico City (ALDF, as per Spanish acronym), in regards to legislating and approving urban development programs (ITDP n.d., p. 83).

On the housing side, INFONAVIT and CONAVI play important roles in the production of low-income housing in Mexico City and therefore, with appropriate incentives, interventions and actions, can play an important role in encouraging TOAH. Furthermore, there are a number of actors that could be targeted to introduce measures to encourage transit-oriented affordable housing. At the Federal level, INFONAVIT plays a crucial role in the provision of low-income housing. INFONAVIT acts as an institution in which the workers, the business sector and the government participate in a credit to obtain housing for workers and provide savings income in the National Housing Fund for retirement pensions (“INFONAVIT,” 2016).

Furthermore, The National Housing Commission (CONAVI) is the federal agency responsible for coordinating the promotion of AH, as well as applying and ensuring that the federal government's objectives and goals for housing are met. CONAVI is in charge of the elaboration of the National Housing Program and managing subsidies. It is also responsible for promoting and coordinating programs and actions related to housing and land with the public, social and private sectors, as well as developing, implementing and promoting schemes, mechanisms and programs for financing, subsidizing and housing savings (“Comisión Nacional de Vivienda,” n.d.).

At the local level, the Housing Institute (INVI) of the Federal District was created to meet the housing needs of the population residing in the Federal District, especially those with low economic resources (vulnerable and at risk) through loans. (“Esto es el INVI,” n.d.). INVI together with SEDUVI decide on housing policy, and this can play an important role in the provision of AH in proximity to transit in urban centers in Mexico City (ITDP n.d., p. 85). Since INVI also acts as an urban land and real estate stock for real estate development, it can make provisions toward ensuring AH in proximity to transit (ITDP n.d., p. 85).

Thus, with the adequate strategies, INVI plays a crucial role in ensuring TOAH in Mexico City. Policies need to be formulated to ensure INVI acquires or produces housing in proximity to transit for lower-income segments of society. Further, governments of different *delegaciones* can also ensure further coordination between AH and TOD by acting together with SEDUVI in preparing programs (ITDP n.d., p. 85).

5.6 IDENTIFYING CHALLENGES TOWARDS A TRANSIT-ORIENTED AFFORDABLE HOUSING STRATEGY IN MEXICO CITY

The next section explores some of the challenges that potentially defy the effective implementation of a TOAH in Mexico. The aim of this section is to identify shortcomings and subsequently formulate recommendations for effective strategies.

One of the main challenges in ensuring TOAH in any city is the fact that land prices around transit stations tend to have high market values. Thus, the **high price of land** is perhaps the greatest challenge in ensuring AH in well-located urban areas. Factors that influence land value appreciation include increasing economic activity, population growth, lack of serviced land, restrictions in the use of the land; deficient spatial planning as well as speculative demand caused lack of financing alternatives (Sociedad Hipotecaria Federal, 2015, p. 99).

Another hindrance towards a TOAH strategy in Mexico City is a **lack of available urbanized land**, which places pressure on the value of urbanized soil, and further increases the price of intra-urban land. At present, the available land for AH is increasingly distant from urban centres, causing the creation of remote commuter or dormitory communities (Sociedad Hipotecaria Federal, 2015, p. 17). As a result this has an impact on real estate development; increases infrastructure costs and decreases the number of families that can acquire AH in well-located urban areas. Therefore, low-income households have no choice but to meet their housing needs on remotely located informal land markets often in informal settlements, forcing many not only to have to spend long and arduous hours commuting, but also devote a significant portion of their income on transport (Sociedad Hipotecaria Federal, 2015, p. 17). Many residents who cannot afford to reside in central areas or Mexico City, and are forced to reside in the peripheral areas, lose two to four hours in public transit to reach the central delegations, which is where 47.3 percent of employment is found (Comision de Vivienda, 2016, p. 19).

Another major issue consists in **government inefficiencies and lack of coordination amongst** Mexico City and the surrounding the State of Mexico. A strongly fragmented governance structure in the ZMVM prevents it from reaching its fullest potential and maximizing its productivity. An aspect that adds a layer of complexity in achieving effective urban development and implementing strategies to foster TOAH is complexities in the organizational structure of Mexico City (subject to Federal laws enacted by the President and Congress, the Local Assembly of Mexico City as well as the 16 different administrative divisions of the *delegaciones* within Mexico City (Ortiz, 2016). To further complicate matters, there exist political rivalries between Mexico City and the State of Mexico, resulting in contradictory policy making, not to mention ineffective developments (Ortiz, 2016). Mexico City and ZMVM are barely integrated despite their interconnection (Grandet, 2014). Despite the fact that urban expansion crosses the boundaries and that it is estimated that by 2020 5.6 million of the daily trips taken will cross between borders, the lack of integrated public policy between both entities and specifically in regards to transportation policies creates a huge setback in terms of effective urban development (FIMEVIC n.d.). The authorities between both entity lack communication, and are thus highly unlikely to coordinate any planning initiative (Grandet, 2014).

Despite some attempts to resolve this lack of coordination (the establishment of a Metropolitan Commission) these have been insufficient. As a result, instead of working towards an integrated city, Mexico City and the State of Mexico operate as fragmented governments working on providing public services and plan exclusively for the inhabitants within their demarcation, despite their interrelatedness. ZMVM needs to achieve major improvements in regards to metropolitan governance in order to deal with matters of urban development in order to maximize the performance of the nation's largest and most important metropolitan area (OECD, 2015).

Furthermore, Mexico City lacks **interdisciplinary planning**. Cross-sectorial planning between transportation and housing, and investment for urban infrastructure has remained a significant challenge throughout Mexican cities:

“the new public transport networks in peripheral areas have not always been well connected to existing lines; further, in some new housing developments, promised transport infrastructure investments that would have made distant housing developments more accessible to job centres never materialised, leaving residents with long and expensive commutes” (OECD, 2015, p. 92).

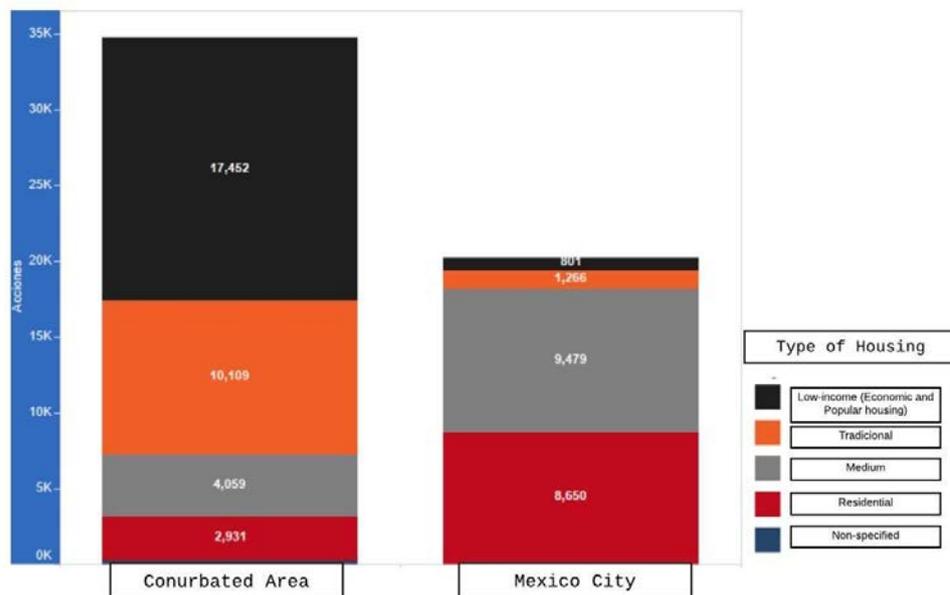
Most decisions for locating housing are made without sufficient consideration to access to public transportation, or other urban services. There is a need for greater coordination between transportation and land use planners, as well as between the Mexico City and ZMVM (Gilat & Sussman, 2002).

Furthermore, **an ineffective Housing Financing Model** further hinders the ability for authorities to ensure AH within TOD developments. The housing financing model of the past few decades has led to a number of urban complications, and has accentuated urban sprawl and social segregation (Department of Urban Studies and Planning MIT n.d., p. 122). If these are not reformulated it will prove highly challenging to implement a TOAH strategy in Mexico City. According to an analysis conducted by MLED (2016) there are various gaps in terms of federal housing financing that hinder a TOAH strategy. These include:

1. Lack of funding to local organizations, which would allow the development of intra-urban land banks to develop social housing projects and incentivize densification.
2. Lack of bridging loans from public bodies for mixed developments in vertical housing (including commerce).

3. Lack of federal program allowing municipalities to generate the specific capacities or to allow them to structure different types of policies, such as value capture (MLED, 2016).

Housing financing policies favour low-income housing built in the periphery, while they continue to incentivize medium and higher income homes are built within the limits of Mexico City (Hernandez, 2016). Figure 12 depicts the way in which the majority housing financing (including financing from federal, state and other entities) and financing from state in the ZMVM for low-income housing (shown in black) is directed towards financing housing in *conurbated* or peripheral areas of Mexico City, while very little goes towards subsidizing housing within Mexico City.



Source: Hernandez (2016) with data from the National Housing Commission

Figure 12. Financing for New Housing in Metropolitan Area of the Valley of Mexico (2015)

Current Parking Regulations present a major challenge towards a TOAH strategy. In Mexico City parking is regulated through a number of instruments, codes and norms, and are currently resulting in a number of negative economic and urban impacts in Mexico City hindering effective urban development (ITDP 2014). Negative economic impacts of current parking regulations include increasing the costs of housing. According to a study by ITDP (2014) parking requirements in Mexico City add additional costs between 30 to 40 per cent of total construction costs, which is then translated into increased sale or rental costs (ITDP, 2014). Furthermore, it does not make sense to include these provisions for social housing projects, which target a group that is least likely afford a private vehicle ownership.

Reformulating parking regulations in Mexico City represent an opportunity in achieving a greater offer of AH in intra-urban land, since current parking requirements move opposite to TOD principles (Department of Urban Studies and Planning MIT n.d.) and hinder the possibility of a TOAH strategy. On the other hand, encouraging TOD can also decrease the demand for parking (ITDP, 2014), and thus fostering any form of TOD strategy must necessarily work to reformulate parking regulations. Therefore Mexico City needs to reformulate its out-dated and unreasonable parking requirements and work towards building a more inclusive city rather than a parking lot.

5.6.1 Missed Opportunities

The government of Mexico City has taken measures to incentivize the private sector to build low-income housing in central areas in Mexico City through a number of urban development policies. However, due to corruption and lack of effective implementation many of these have failed to leverage advantages in producing further AH in central urban settings.

Standard 26, 30 and 31

Standard 26 aimed to foster and facilitate the construction of popular and social housing in intra urban soil. It decrees that the sale value of the social housing should not exceed 15 TMS and that popular housing does not exceed 30 TMS. Standard 26 also deals with parking requirement regulations to facilitate the production of low-income housing (Órgano del Gobierno del Distrito Federal, 2005). In August 2013, standard 26 was put into questions after a number of real estate developers took advantage of the standard to sell unfinished housing units (Diaz, 2014). Many private developers ended up taking advantage of these measures and finding loopholes within them to increase their profits, thus discrediting the measure to attempt to increase the stock of AH in central urban locations (Ortiz, 2016).

In order to replace standard 26, authorities designed standards 30 and 31 to act together in order to incentivize the production of AH in central areas in Mexico City (Fundación IDEA, 2014). The design of norms 30 and 31 established a system of cross-subsidies through which the production of medium and high-income housing finances the production of social housing. To define the latter, two categories were established: type A, with a price of up to 20 TMS (495,000 pesos in 2014) and type B, with a value of up to 30 TMS (740,000 pesos in the same year) (Fundación IDEA, 2014). The proposed standards also provided differentiated treatment to housing producers, for example social housing developers and INVI could enjoy

greater stimulus than private developers. The measures would allow the former to increase the density of their developments under certain criteria (Fundación IDEA, 2014). These standards also stipulated the concept of public value capture, to support the production of social housing and the improvement of the neighbourhoods where the standards were being applied. The proposed concept of public value capture would be allocated as follows: 60% would be directed towards to the production of social housing; 20% to the improvement of mobility, equipment and urban services throughout Mexico City, and the last 20% to directed towards investment in the area where the value was captures. At the same time, the payment would allow developers to increase the number of units, and the standards also sought mixed-use land, reduction of parking requirements (Fundación IDEA, 2014). The designs of Standards 30 and 31 demonstrated effective collaboration between authorities and academia to attempt to solve issues of sufficient housing production in Mexico City (Fundación IDEA 2014). However, neighbourhood associations known as *Vecinos Unidos* (United Neighbours) denounced standards 30 and 31 stating that it was not about social housing but only served to benefit real estate developers (Mejia, 2014). Growing scepticism, neighbourhood opposition and distrust of authorities prevented the standards from being put into practice, and the norms are momentarily halted.

Despite having a good design, one of the reasons these measures have failed to increase to supply of AH in intra-urban locations is in part due to the government's failure to effectively enforce, supervise and monitor their correct implementation (Ortiz, 2016).

Urban Containment Perimeters

In order to reduce sprawl and support TOD strategies, the National Urban Development Program 2014-2018 (strategy 4.2 line of action 1) modified housing financing policies to achieve its objectives, by implementing urban containment perimeter seeking to provide different levels of financing based on proximity to urban centers (MLED, 2016). This created perimeters (zones U1, U2, U3) that served to define the level of housing finance based on location standards. For example, zone U1 considered to have the highest access to urban services, receives the most amount of financing and subsidies, and this decreases as the location moves closer towards zones U2 and U3 (MLED, 2016). The subsidy is then based on a qualification system in which points (up to 1000) are awarded based on location (40 per cent), density (23 per cent), equipment and services (27 per cent) and competitiveness (10 per cent) as well as the cost of the housing. To obtain a subsidy the housing must obtain at

Antonia Burchard-Levine

Master Candidate –Urban Management
Technische Universität Berlin

least 350 points based on the location 35 per cent of the total. Location is the most important criteria (U1=400, U2=350 and U3=350) (MLED, 2016). Although these measures seek to ensure the production of well-located and integrated housing, these urban containment perimeters do not include any criteria considering proximity to mass transit and this fail to have a direct link to TOD strategy (MLED, 2016).

5.7 INTERVIEW ANALYSIS

In-depth interviews allowed a broad understanding of the issue in implementing strategies for AH in conjunction with TOD. The analysis in the following section is meant to serve as a complement to the previous sections in this chapter, and to provide insights into the topic of this thesis directly from a sample of stakeholders, and uncover aspects that may not be found in the documents analysed. Although the number of interviews may not have statistical relevance, they provide great qualitative insight as well as an understanding from the perspective of different actors and stakeholders and the tensions between different groups in matters of urban development. Following two coding rounds (see methodology) 23 topics were deduced. Although these topics are all relevant moving towards a transit-oriented affordable housing strategy, many exceed the scope of this thesis. This section will focus on discussing those most relevant fostering a transit-oriented affordable housing strategy in Mexico City.

Table 4. Topics Yielded Through Interview Analysis

1. <i>Administrative barriers and restrictive zoning and land use</i>	2. <i>Lack of AH supply</i>
3. <i>Gap between authorities and civil society</i>	4. <i>Lack of political will</i>
5. <i>Densification versus opposition to densification</i>	6. <i>Lack of technical capacity</i>
7. <i>Weak regulation and enforcement mechanisms</i>	8. <i>Lack of government support</i>
9. <i>Corruption</i>	10. <i>Opposition by civil society</i>
11. <i>Citizen participation</i>	12. <i>Opposition to TOD elements</i>
13. <i>Complexity of TOD</i>	14. <i>Parking regulations:</i>
15. <i>Government intervention versus laissez-faire</i>	16. <i>Public policy</i>
17. <i>High cost of land hinders AH provision</i>	18. <i>Sectorization</i>
19. <i>Ineffective financing model and instruments</i>	20. <i>Underdeveloped rental market</i>
21. <i>Need for innovative financing models</i>	22. <i>Value of proximity to transit</i>
23. <i>Ineffective public policy</i>	

Many government, experts, private sector and civil society interviewees mentioned **administrative barriers and restrictive zoning and land use** as an impediment of efficient urban interventions.

Antonia Burchard-Levine

Master Candidate –Urban Management
Technische Universität Berlin

The Director General of Urban Development at the Secretariat of Urban Development and Housing (SEDUVI) stressed the need to make zoning laws less restrictive and reduce administrative barriers: “We need legal instruments that allow us to be able to identify the underutilized soil that has legal problems and to be able to quickly incorporate them into urban development” (Zamorano, n.d.). A Consultant specializing in governance, urban development, and housing in Mexico City, also stated that Mexico City is largely inclined towards single-use zoning, which comes as an impediment to TOD implementation. In other words, there is a need to remove restrictions in order to move forwards.

On the other hand, the Spokesperson of the Neighbourhood Association for the defense of the Roma-Condessa-Hipodromo mentioned opposition to changes in zoning and of land use, permits as a means to prevent negative changes within the neighbourhood.

Another salient issue uncovered during interviews consists in a **gap between authorities and civil society**. There is a divide between authorities and the public, as well as significant tensions and distrust that hinder efforts in urban development. While the interviewee from SEDUVI mentioned civil society opposition to many urban initiatives as an impediment to effective urban development, civil society interviewees mirrored this opinion by mentioning opposition to, and distrust of many urban initiatives coming from the government. For example, civil society interviewees expressed opposition to **density**, changes to **parking regulations** and other elements that could potentially be a step forward in fostering transit-oriented affordable housing. Drawing from this, an issue that came up during interviews was the idea of **densification versus opposition to densification**. While experts, academics, and government interviewees agree that densification is needed and can be a solution to including a larger supply of AH in intra-urban locations, representatives of neighbourhood groups oppose measure for densification as well as other measures to advance TOD.

According to the Director General of Urban Development at the Secretariat of Urban Development and Housing (SEDUVI), densification is very difficult process because citizens opposed to it, they do not want to share their space with others (Zamorano, n.d.). Civil society interviewees expressed significant distrust towards private sector and government entities, due to previous experiences of abuse by private sector developers and government entities when implementing density bonuses, such as standard 26. The Leader of 0600 Platform and Observatory for Juarez Neighbourhood, expressed strong opposition to densification, although

not necessarily to TOD, due to the fact that he claims it is unviable due to the conditions in the *delegación* he represents (environmental constraints, water provision, traffic congestions etc.) (Gonzalez, 2016). These tensions were depicted during the cancelation of standards 11 and 26 discussed by Zamorano (2016), and the halting of norms 30, and 31 discussed by the leader of the neighbourhood association SUMA URBANA. There was a general belief that belief that these norms would not stimulate social housing but rather benefit private sector developers (Macgregor, 2016).

Furthermore, another topic discussed during interviews is **weak regulation and enforcement mechanisms** as well as **corruption and lack of transparency**, and although it is clear that these are huge setbacks for urban interventions; the topic of corruption exceeds the scope of this thesis. However, one aspect worth mentioning and discussed by the representative from the private sector as well as government is a great deal of opacity regarding government owned-land. This is important to mention since it is precisely this land that could be used to establish a land bank for TOAH. According to a TOD Expert, Lecturer in Urban Planning and Design at Harvard University; for example, this is a significant amount of underutilized government land (markets, areas around transit stations) that could be utilized to incentive AH, however opacity and lack of information regarding these lands hinders these efforts (Flores Dewey, 2016).

A need for increased **citizen participation**, mentioned by civil society and government interviewees can serve as a means to reduce the gap between authorities and civil society and perhaps even lead to greater accountability.

The matter of **Parking Regulations** is an issue that came across the entire spectrum of interviews. While academia, experts, government and even the public sector seem to agree that restrictive parking regulations restrict effective urban development practices, changes to these regulations are strongly opposed by the public. According to the director general of SEDUVI, modifications to current parking requirements can lower the cost of housing. Moreover, experts interviewed agreed that reformulating parking regulations is an important step forward towards increasing the provision of AH in urban centers in Mexico City. However civil society groups oppose changed to parking regulations. The Spokesperson of the neighbourhood association for the defense of the Roma-Condessa-Hipodromo neighbourhoods made it very clear that they have oppose measures to regulate parking, including the installation of parking meters in certain neighbourhoods (Aviles Gomes, 2016).

This notion is summed up by one of the experts interviewed:

“So you ask yourself, how can I reduce the price of a home in a place where land is very expensive, I think there are several alternatives. One is, eliminating parking policies, there is an issue that involves carrying a social process with neighbours. And that's politically complicated, because they believe there will be more cars on the streets. So that is one, to unlink the price of parking at the price of housing” (Flores Dewey, 2016).

TOD is complex both at the conceptual level as well as at the implementation level. According to one of the interviewees, TOD is difficult to implement due to the fact that it involves aligning a number of often competing interest and stakeholders. As one of the experts described it, to implement a TOD project “too many monkeys have to remain still to take a picture,” or in other words in order to effectively implement any project relating to TOD, there is a wide range of actors and instruments that need to be aligned, and this proves highly challenging (Flores Dewey, 2016). On the other hand, civil society interviewees showed that although they express opposition to TOD and TOD elements, they also seem to lack understating of what TOD seeks to achieve. Sectorization is an impediment to ensuring AH and TOD in Mexico City. Zamorano (2016) mentioned the general lack of coordination between different government entity’s and actors, but also opacity amongst these. The consultant specializing in governance, urban development, and housing also discussed the issue of sectorization at greater lengths:

“Another very important aspect to look at is the sectorization of public policy in Mexico City. You have the federal level; you have SEDATU, [...]. You have INFONAVIT, which has a significant amount of power and money, largely because they generate their own finance, and they are 80 percent of the housing market in Mexico, [...] and so they inadvertently drive housing policy [...] and no one talks to each other. And then even at the City level, [...] you have SEDUVI, and within SEDUVI their own little factions. And then you have all the Municipalities that make up el Valle de Mexico. And there is zero coordination. But it is beneficial to Estado de Mexico for people to move there, so they will not make policy changes that will encourage people to live in more central areas within Mexico City because then they lose tax payers, so there is no incentive to coordinate [...] In terms of TOD, this complicates things” (Pollock, 2016).

In this excerpt, the consultant mentions many levels of lack coordination in public policy hindering efforts in urban development. There is an issue of sectorization in the government,

within the different government factions themselves, as well between administrative entities such as Mexico City and the State of Mexico, which hinder efforts for effective urban development.

To remediate this lack of coordination, Zamorano (2016) mentioned the fact that he supports a proposal for the establishment of a Planning Institute in Mexico City (currently being proposed). Experts and representative from the private sector also concur with this, although their vision of it is more of a bottom-up approach. Civil society representative and leader of SUMA URBANA suggested the need for an observatory in dealing with matter of urban development, with the inclusion of academia (Macgregor, 2016).

Private sector, civil society, experts and government brought up the topic of stimulating the **underdeveloped rental market** as a means to ensure AH in proximity to transit or as an opportunity to increase the supply of AH along with TOD. According to one of the experts interviewed, focusing solely on subsidized housing for sale can become ineffective:

“Social housing for sale I think it would be a mistake for the government to sell in a single round, a cheap house in a central area, because that house is going to be appreciated, the family is going to sell it, and when the band is going to sell it to Higher price you can get” (Flores Dewey, 2016).

According to the Consultant specializing in governance, urban development, and housing, there is much potential in stimulating the rental housing market:

“Renting, as a whole, has not been promoted. It is not seen as something good as most people see owning as something to aspire to. People think that if they do not own a house, they have no *patrimonio*, no assets, which is something that the 2008 crisis showed that maybe owning is not the solution, and maybe renting needs to be promoted. Mexico’s rental economy is almost non-existent; INFONAVIT has very little support for renting” (Pollock, 2016).

The experts interviewed mentioned **ineffective financing model and instruments** as a factor preventing effective delivery of AH during interviews.

“If you look at the INFONAVIT credit statistics, which is the government's forced savings program to finance housing, you will find that the number of credits designated in Mexico City is a ridiculous number [...] with all the subsidies given by

CONAVI to housing, you cannot afford to put a house at that price on the market”
(Flores Dewey, 2016).

Current housing financing through INFONAVIT has been ineffective and largely resulted in significant housing abandonment, according to Pollock (2016). Pollock (2016) also mentions that INFONAVIT realized that their housing financing model was creating abandonment and many other problems, including lack of access to services. Therefore, Mexico City can really benefit from **innovative financing models** to stimulate AH in TOD and “cross-subsidy is one, you can charge the developer a number of living or an amount of money to be able to invest in a social housing infrastructure” (Flores Dewey, 2016).

During interviews, experts, representative from the private sector, academia as well as civil society representatives all mentioned the fact that **ineffective public policy** and **weak regulation and enforcement mechanisms** have resulted in urban sprawl. The Director of the Geography Department of the National Autonomous University (UNAM) stated that the price of housing is led by the private sector in Mexico City, and a general *laissez-faire* in housing sector renders the provision of well-located AH impossible, and therefore the government has the responsibility of providing AH in urban centers (Suarez Lastra, 2016).

Furthermore, the **environment in Mexico City is not supportive to TOD**. According to another TOD expert, consultant and Founder of Urbanistica; Professor Faculty of Architecture UNAM “there is no TOD implementation in Mexico City because there is no policy and instruments for TOD implementation. There are projects that cover some aspects of the characteristics of a TOD project” (Herrera Montes, 2016). The expert also mentions that a new housing law has recently been approved, however it hardly touches the subject TOD, and when it does it is only at a conceptual level. Therefore there are simply no incentives for TOD (Herrera Montes, 2016).

Last but definitely not least, the greatest impediment to coordinating AH and TOD, and probably the most challenging, is the fact that **high cost of land hinders AH provision** in proximity to transit. According to TOD Expert, Lecturer in Urban Planning and Design at Harvard University; “the value of housing must be decoupled from the value of land” (Flores Dewey, 2016).

“You can have a long-term lease, like saying "I have a lease-hold" but not a "free-hold" on land. And by unlinking that, without turning the user into a tenant, that is, having a time horizon long enough to own a property in such a way that it can benefit [...] is something that does not exist

in Mexico. And number three, is to take advantage of the huge stock of public land in the city to increase the supply of housing (Flores Dewey, 2016).

Thus, there is a need to disaggregate the cost of land and housing through innovative strategies. A representative of Prodi Real Estate Company, proposed innovative strategies such as community land trusts (Morales, 2016). Furthermore, the political framework is not conducive to coordination between AH and TOD. Although a number of federal policies subsidize AH, these do not include TOD criteria. Alternately, although there are various instruments to finance transportation although, these also fail to promote TOD.

CONCLUSION

The interviews provide good insight into the complexity of the issue, and the major challenges and obstacles in moving towards a TOAH strategy. The issue of promoting TOAH is a topic that barely takes place in the discourse. This is largely due to the fact that TOD itself has only recently been introduced at the political level and amongst experts and academics in Mexico City. A significant amount of scepticism regarding the implementation of TOD in Mexico City remains especially amongst civil society, since projects deemed as TOD in Mexico City do not incorporate measures of social inclusion.

6 DISCUSSION OF RESULTS

While Mexico City presents a number of prerequisites for the effective implementation of a TOAH strategy, there are still a number of efforts that need to be made in order to move towards an effective implementation of policies and programs to implement a TOAH strategy.

An international literature review and a set of case studies discussing the issue of maintaining and preserving affordable housing with TOD and transit investments and cases provided insights into global strategies to increase the stock of AH in proximity to transit. A number of strategies devised to provide AH in the face of new transit investments, rising land and housing prices, such as Affordable Housing Financing Tool, Incentives for the private sector, Collaborative Planning Tools, Transportation Management Tools, Coordination Mechanisms, Inclusionary Housing Policies, and Preserving Affordable Housing strategies. Next, three case studies provided examples of strategies to deal with coordinating AH with TOD or transit. The first case showed a collaborative planning process and a means to monitor developments. An example from Colombia depicted how to link mass transit and housing through a state land bank and inter-sectorial coordination. Finally, a case study from Brazil provided insight into how an Urban Evaluation Tool can be effective in assessing the location of mass housing projects in order to ensure these are better located and in proximity to mass transit, and likewise other urban services. Although these strategies provide examples of best practices, in order to function in Mexico City they need to be adapted to the local conditions and realities.

The following section analyzed the situation in Mexico City by looking at the policy framework to analyze how TOAH aligns with both federal as well as state policy goals. The stakeholder analysis provided insights regarding stakeholders that come into play when it comes to integrating AH within TOD developments. This part showed that INVI is a key player in the provision of TOAH In Mexico City, and special measures need to be put in place to ensure INVI becomes a player in TOAH strategies.

Next, an analysis of urban challenges in Mexico City in effectively delivering TOAH, found that the main impediments include restrictive zoning, excessive parking requirements, and challenges in coordinating between Mexico City and the surrounding State of Mexico. Furthermore, there are significant challenges within the housing sector in Mexico City that hinder these goals. The inclusion of AH becomes an even greater challenge due to constraints on

the supply of land increasing land prices in urban centres, lack of affordable housing provision, and an underdeveloped rental market. Furthermore housing programs and housing financing (such as those of INFONAVIT) of the last few decades have resulted in urban sprawl and social segregation. Considering the importance of INFONAVIT in housing provision, it is necessary to find means to reformulate their strategy in housing provision to ensure LMI housing in well-located intra-urban locations. Furthermore, lack of metropolitan coordination makes many efforts in urban development ineffective.

The interviews reiterated many of these challenges and also uncovered a number of different challenges in integrating AH during TOD interventions in Mexico City. Opposition to densification is an important factor, as well as a lack of coordination amongst the different stakeholders and actors, and administrative barriers and restrictive zoning and land use. An important issue that found through interviews is a gap between authorities and civil society, and a general sentiment of distrust between both, which tends to delay or prevent initiatives towards TOD. The interviews also show that stimulating the rental market can be a means to achieve AH in proximity to transit. Strategies to close the gap between authorities and civil society would prevent significant issues and delays in planning initiatives, and result in more harmonious urban development. Finally, the interviewees mention corruption and lack of transparency as a major issue, and although dealing with this exceeds the scope of this thesis, it is important to note that government opacity concerning publicly owned land is in fact a large impediment towards increasing the supply of AH in intra-urban land.

The issue of parking requirements came up a number of times throughout this research process. As the research shows, reducing the number of parking units for residential projects can greatly decrease the cost of housing, and liberated space for the production of a greater number of units within a project. Reduced parking requirements for residential development can provide incentives for private sector to produce more housing units, as well as make housing more affordable more affordable (Pollack et al., 2010, p. 52). In parallel, implementing a TOD strategy can also serve to reduce the demand for parking. Thus, reformulating parking requirements can be an important step towards addressing the objectives of this thesis.

However, the major obstacle to ensuring AH in proximity to transit and in intra-urban locations is the fact that the intra urban land is too costly to provide AH at market rates. Therefore it requires greater government intervention under the form of subsidies, incentives, as well as

Antonia Burchard-Levine

Master Candidate –Urban Management

Technische Universität Berlin

stimuli for private sector developers. Furthermore, there is significant potential in addressing the issue of land constraints and high cost of land by increasing density and removing parking requirements.

Authorities in Mexico City have recognized the need for strategies that would support an environment that is conducive to producing transit-oriented affordable housing, such as with standards 26, 30 and 31 as well as the urban containment perimeters. However lack of effective governance and implementation prevented these from achieving their goals.

A look at international literature and case studies provided key insights into how this issue has been dealt with in other places in the world. With the situation in Mexico City carefully studied, these strategies can be adopted, reformulated and adapted to the local situation. Thus, strategies should focus on dealing with formulating strategies to disaggregate housing values from land prices, ensuring subsidies for affordable housing in intra-urban land to groups who cannot afford it, all the while establishing further mechanisms for inter-institutional coordination, as well as increased citizen participation, and enforcement mechanisms. **The next section discusses a number of strategies to implement a TOAH strategy in Mexico City, based on the research and analysis conducted throughout this thesis.**

7 RECOMMENDATIONS

This section provides a set of recommendations based on findings from this research, seeking to answer the main question: *What strategies can ensure the production and preservation of affordable housing (AH) for lower-income segments of society during the implementation of TOD in Mexico City?*

7.1 GOVERNMENT PROVIDED HOUSING IN PROXIMITY TO TRANSIT FOR RENT OR SELL

Since the lack of AH for lower-income families in Mexico City results in large part due to market failure in which the housing sector fails to provide housing for this group, the government and authorities in Mexico City need to play a bigger role in this regard. Ensuring AH in conjunction with public transit can provide a number of opportunities in Mexico City. In an ideal situation, the government would establish mechanisms to require all subsidised affordable housing in ZMVM to be located near transit, be it Metro, light rail, or suburban rail (Gilat & Sussman, 2002). This can be done by establishing a publicly-owned land bank for AH, which as research for this thesis uncovered, would require greater transparency from the part of the government in regards to publicly owned land.

7.2 INCLUSIONARY HOUSING POLICIES

Furthermore, the government needs to formulate inclusionary housing policies to increase the stock of AH in intra-urban locations of Mexico Cities. Reformulate zoning and land use plans to incentivize inclusionary zoning and stimulate privately financed AH can increase the provision of AH in intra-urban locations in Mexico City (Pollack et al 2010). This can be done by including provisions to make a certain percentage of housing developments in proximity to transit and in intra-urban locations affordable and also place mechanisms to ensure they remain affordable (Pollack et al., 2010 suggest 10 to 15 percent). This should be accompanied by fiscal incentives and density bonuses to compensate developers (see next section). Prior to construction of new transit, it would be advisable to re-formulate zoning and land-use to ensure it includes provisions for affordable housing.

7.3 AFFORDABLE HOUSING FINANCING TOOLS

Research found that one of the greatest challenges to moving towards a TOAH strategy in Mexico City is the high price of land located in proximity to the transit network. Therefore, it is necessary to intervene and unbundle the costs of housing from the cost of land to provide AH within TOD. To achieve this innovative instruments and financing tools need to be formulated. These of course need to be accompanied by appropriate enforcement and monitoring mechanism. Below are means to achieve effective affordable housing financing in intra-urban locations.

Cross Subsidies/ Public Value Capture: Commercial linkage fee charged on developers for new commercial developments to finance AH programs. Authorities should focus on establishing capacities for local authorities to increase financing, for example public value capture mechanisms.

Community Land Trust: Community Land Trusts provide an interesting opportunity to unbundle the cost of housing from high land prices and increase the provision of AH. Community land trusts can function as non-profit community based organizations that ensure land remains affordable. These must also be accompanied by measures to control the purchase and sale of these community land trusts to prevent speculation and uncontrolled rising of housing prices.

TOAH Fund. Establishing housing trust funds to finance AH housing in proximity to transit can serve as a means to plan ahead, and prevent land price speculation by acquiring land to develop AH near existing or planned stations (Pollack et al., 2010, p.43) These can be used as funds to acquire sites around existing or future transit stations for the production of AH prior to land price speculations" (Pollack et al., 2010, p.43). Constructing a public-private fund to ensure affordable housing in proximity to transit has demonstrated to be a viable option previously

7.4 INCENTIVES FOR THE PRIVATE SECTOR

If granted the adequate incentives, the private sector can play an important role in the provision of AH utilizing TOD guidelines. The following are a few examples of these.

Density Bonuses: Increasing the provision of AH in Mexico City can be addressed by incentivizing density (Department of Urban Studies and Planning MIT n.d.). This is feasible due to a significant amount of underutilized land, but becomes difficult due to implementation problems.

Density bonuses can provide a means to incentivize private sector developers to ensure the inclusion of affordable housing units, in exchange for higher density housing (Urban Displacement Project). However, considering past experience with density bonuses in Mexico City (notably standards 26, 30 and 31), the most important factor is to ensure that these are accompanied with effective enforcement and monitoring mechanisms, in order to prevent abuse and thus subsequent distrust and scepticism towards these types of initiatives. It would be advisable to establish an independent commission to oversee this.

7.5 URBAN INSERTION TOOL FOR EVALUATING HOUSING PROGRAMS

This research has shown that the government housing programs (INFONAVIT) of the last few decades have fostered urban sprawl and delivered ineffective housing solutions, such as housing abandonment and social segregation due to badly located mass housing projects. Since INFONAVIT is the largest credit granter in the housing sector, it can play a significant role in ensuring AH in better locations. For an effective TOD strategy with the inclusion of AH, it is necessary to evaluate INFONAVIT projects and direct them towards more inclusive and sustainable forms of development. Since INFONAVIT has virtually led the housing sector in Mexico, it would be advisable to develop a tool to evaluate the location of potential INFONAVIT housing programs in the future, in order to ensure they are located in areas with good access to transit and other urban services. In other words, it would be highly worthwhile to mass housing programs incorporate TOD elements. The Urban Evaluation Tool can be an interesting tool in making efforts towards delivering social housing programs in better urban locations. It can be used to assess projects and work towards ensuring subsidized housing for lower-income segments of society in close proximity to transit. First, it would be necessary to establish parameters for evaluation and then commence with a pilot project, which can later be scaled up.

Furthermore, INVI was identified as a key player in regards to the provision of AH in urban centers and therefore the criteria for INVI housing financing should include criteria for location and proximity to transit.

7.6 REFORMULATE PARKING REQUIREMENTS

While TOD can reduce the demand for parking on the medium to long run, reformulating parking restriction in Mexico City can provide an opportunity to increase the provision of

affordable housing in the shorter run. This can also provide an incentive to the private sector to build more projects with AH units, by diminishing parking requirements, leaving more space for the construction of a higher number of housing units. It would be recommendable to reformulating parking requirement to provide a maximum of parking units per development, rather than a minimum requirement.

However, considering the opposition to changing these requirements presented by civil society, strategies need to be formulated for the longer-term, and also accompanied by a communication strategy to explain the benefits than can be achieved. It would be recommendable to begin this process by first granting exceptions to parking requirements to residential projects that seek to produce housing for lower-income groups in proximity to transit. These can serve as pilot projects to inform larger scale projects, and allow time for civil society to understand and perceive the benefits that reformulating parking policies can bring to a community.

7.7 ENHANCED MECHANISM FOR INTER-INSTITUTIONAL COORDINATION:

Considering the multi-stakeholder nature of TOD, implementing an effective strategy necessarily requires greater institutional coordination as well as a means to improve communication and coordination between authorities, experts and civil society, as well as to stimulate effective public participation in matters of urban development between different entities and geographic governing areas. This can take the following forms:

Agency to Coordinate Transit and Housing: an agency for coordination with members of transportation board, housing, developers, citizen participation, and other relevant sectors can establish an agency to oversee coordinated developments between housing and transportation. This can work towards developing schemes to **Incorporate Affordable Housing In Joint Development** and incentivize transit agencies to engage in joint development projects to take advantage of increasing AH provision near transit in order to increase ridership (Pollack et al., 2010, p.48). This agency should cut across sectors to include government and private sector developments.

Planning Institute: A Planning Institute can ensure effective coordination and sustainable development. While currently the government entities are characterized by significant sectorization (for example SEMOVI handles mobility issue, while SEDUVI housing and urban

Antonia Burchard-Levine

Master Candidate –Urban Management

Technische Universität Berlin

development with very little coordination and communication). A Planning Institute can oversee holistic, integrated and sustainable urban planning objectives and ensure greater coordination amongst different government entities as well as sectors. An institute of this kind is currently under consideration at the government level. It should consider having representatives of different government factions, and should also work towards ensure wider participation, rather than simply a top-down approach. Finally, it should stimulate coordination between Mexico City and surrounding State of Mexico.

Observatory for Coordinated and Collaborative Planning for AH and TOD: Establishing an observatory to make efforts to ensure strategies to coordinate the planning to AH with TOD. This observatory can take a more bottom-up approach than the planning institute but also ensure working together. It should seek to establish community-based organizations to ensure efforts in urban developments, zoning and land use around new or existing transit stations ensure availability and preservation of affordable housing. It should also seek to achieve bottom up strategies for effective communication between authorities and civil society representatives, and an effective communication strategy with the potential Planning Institute. It should cut across sectors and include government representatives, civil society, experts, relevant private sector representatives as well as academia. Furthermore, coordination **between metropolitan boundaries** is highly recommended.

8 CONCLUSION

Pollack et al., (2010) discussed the issue of being confronted with a Hobson’s choice (take it or leave it) when confronted with the need to make investments in the transit infrastructure. With the assumption that transit investments ultimately lead to processes of gentrification and displacement, planners and policymakers must decide “either make the transit investment and accept loss of neighbourhood diversity as collateral damage, or avoid transit expansion projects serving diverse, lower-income neighbourhoods and leave those residents with poor public transit or none at all” (Pollack et al., 2010: 1). This thesis sought to address this matter by not having to make the choice between transit and affordable housing, by providing an analysis and exploring a number of recommendations regarding strategies for a TOAH strategy in Mexico City.

This thesis sought to analyze strategies to foster TOAH in Mexico City, and achieving equitable and sustainable urban development to revert the current patterns of urban sprawl and social segregation. Working towards a TOAH strategy in Mexico City is a rather complex task that requires effective institutional coordination, amongst many other aspects discussed throughout this thesis. However, implementing the recommendations provided in this thesis, and granting greater attention to this issue can prove to be a step forward in providing both housing as well as transit to some of the most vulnerable segments of society in Mexico City, and a move towards a more integrated, inclusive and sustainable city.

9 FUTURE RESEARCH

In order to move this strategy forward, future research and work needs to be conducted. Suggestions for future research are listed here below:

Inventory of Publicly Owned Land Available in Mexico City. This thesis found that the government could play a greater role in providing AH in proximity to transit, either for sale or rent. Therefore, a study can be conducted to identify government owned land in proximity to transit to then devise a strategy to utilize this land to build AH.

Identify Indicators to Monitor and Evaluate progress in regards to TOAH. It would be useful to identify a number of indicators that can be used to evaluate progress in regards to AH units produced in proximity to transit stations and corridors.

Mechanisms for Enforcement and Accountability. This research showed that a number of strategies have previously been implemented in Mexico City to increase the AH stock in intra-urban locations (Standards 26, 30 and 31). However, these did not achieve their goals due to lack of enforcement mechanisms. Since lack of effective implementation, corruption is often an impediment to ensuring effective urban development; research should be conducted in to identify strategies to render governments as well as private developers more accountable in implementing measures to ensure the production of TOAH

An Integrated Planning Institute. This thesis found that a major impediment to effective and coordinated urban development in Mexico City is hindered due to lack and inter-institutional and inter-sectorial coordination. Research should be conducted in order to establish a Planning Institute that takes into account the different stakeholders and areas under one institute. It should also consider representation from both Mexico City and the State of Mexico.

Designing financing tools: Research should be conducted into viable financial schemes specifically targeting TOAH in Mexico City.

10 REFERENCES

- Alcaldia Mayor de Bogota D.C., 2014. Proyecto “IDU Parquaderos” Línea de intervención en bienes fiscales distritales.
- Arrington, G., Cervero, R., 2008. Effects of TOD on Housing, Parking, and Travel. World Transit Research.
- Belzer, G., Autler, G., 2002. Transit Oriented Development: Moving From Rhetoric To Reality.
- Center for Transit Oriented Development, 2009. Property Acquisition for TOD in the Central Corridor Acquisition Fund Framework Study Final Report.
- Center for Transit Oriented Development, 2007. Realizing the Potential: Expanding Housing Opportunities Near Transit.
- Center For Transit-Oriented Development, 2004. Hidden in Plain Sight: Capturing The Demand For Housing Near Transit.
- Central Corridor Funders Collaborative, June 2016b. Central Corridor Tracker: Progress Beyond the Rail.
- Central Corridor Funders Collaborative, June 2016a. About a Community not a commute: Investing beyond the rail.
- Cervero, R., Ferrell, C., Murphy, S., 2002. Transit-Oriented Development and Joint Development in the United States: A Literature Review (No. 52). Transportation Research Board of the National Academies.
- Chapple, K., 2009. Mapping Susceptibility to Gentrification: The Early Warning Toolkit.
- Chapple, K., Chatman, D., Waddell, P., n.d. Technical Proposal: Developing a New Methodology for Analyzing Potential Displacement.
- CMIC, n.d. ¿Quiénes somos? Cámara Mexicana de la Industria de la Construcción.
- Comision de Vivienda, 2016. Dictament de la Ley de VIVIENDA.
- Connolly, P., 2003. The Case of Mexico City, Mexico.
- CTS-EMBARQ Mexico, n.d. Guia DOTS para Comunidades Urbanas.
- Cunha Linke, C., n.d. In Brazil, Connecting Social Housing with th City, in: Sustainable Transportation. ITDP, pp. 27–28.

Antonia Burchard-Levine

Master Candidate –Urban Management
Technische Universität Berlin

- Dawkins, C., Moeckel, R., 2014. Transit-Induced Gentrification: Who Will Stay, and Who Will Go? DRAFT. Presented at the Transit, Transit Oriented Development, and Urban Form: A Bi-National Symposium Featuring Paris, France, and Washington, DC.
- Department of Urban Studies and Planning MIT, n.d. Transit Oriented Development for Mexico City.
- Diaz, C., 2014. Conoce las normas 26, 30 y 31 de SEDUVI. Milenio.
- Duncan, M., 2011. The Impact of Transit-oriented Development on Housing Prices in San Diego, CA. *Urban Stud* 48, 101–127. doi:10.1177/0042098009359958
- Enriquez Portillo, M.A., 2016. Depiction or Urban Expansion of Mexico City since 1900.
- Esto es el INVI n.d. URL <http://www.invi.df.gob.mx/portal/invi.aspx> (accessed 12.18.16).
- Fernandez Reyes, S., 2016. Station-level ridership on Mexico City's Subway and BRT. Massachusetts Institute of Technology, Boston, Massachusetts.
- Ferrocarriles Suburbanos. 2017. URL <http://www.fsuburbanos.com/> (accessed 1.24.17).
- FIMEVIC, n.d. Problemas de Movilidad en la Ciudad de México [WWW Document]. URL <http://www.fimevic.df.gob.mx/problemas/problemasdemov.htm> (accessed 6.18.16).
- Fundación IDEA, 2014. México Compacto: Las condiciones para la densificación urbana inteligente en México.
- Gilat, M., Sussman, J.M., 2002. Coordinated Transportation and Land Use Planning in the Developing World – The Case of Mexico City.
- Gobierno de la Ciudad de México, n.d. Delegaciones de la Ciudad de México DF.
- Gonzalez Sanchez, J., Kunz Bolanos, I., 2005. Vivienda de Produccion Informal, in: Regionalización Habitacional de La Ciudad de México, Colección Temas Selectos de Geografía de México. Instituto de Geografía, UNAM, Mexico, pp. 51–74.
- Grandet, C., 2014. Distrito Federal y Estado de México: la ciudad dividida. *Animal Político*.
- Great Communities Collaborative, 2007. Transit-Oriented for All: The Case for Mixed-Income Transit-Oriented Communities in the Bay Area.
- Grube-Cavers, A., Patterson, Z., 2015. Urban rapid rail transit and gentrification in Canadian urban centres: A survival analysis approach. *Urban Stud* 52, 178–194. doi:10.1177/0042098014524287
- Guerra, E., 2015. Has Mexico City's shift to commercially produced housing increased car ownership and car use? *Journal of Transport and Land Use* 8.
- Hernandez, S., 2016. Financiamientos para Vivienda ZMVM 2015.

Antonia Burchard-Levine
Master Candidate –Urban Management
Technische Universität Berlin

- INEGI, 2015. Principales resultados de la Encuesta Intercensal 2015 Distrito Federal.
- INFONAVIT [WWW Document], 2016. Trámites México. URL <http://tramitesmexico.mx/infonavit> (accessed 12.18.16).
- Ireland, C., 2015. The makeover of Mexico City [WWW Document]. Harvard Gazette. URL <http://news.harvard.edu/gazette/story/2015/02/the-makeover-of-mexico-city/> (accessed 1.28.17).
- ITDP, 2015. MCMV + Access & Mobility A Case for Transit Oriented Low Income Housing in Rio de Janeiro.
- ITDP, 2014. Menos Cajones, Más Ciudad: El Estacionamiento En La Ciudad De México.
- ITDP, n.d. Towards A Transit-Oriented Development Strategy For Mexico City [Working paper].
- ITDP Brasil, n.d. City and Movement Mobilities and Interactions in Urban Development.
- ITDP, Lab Cidade, Ford Foundation, n.d. Ferramenta de Avaliação de Inserção Urbana.
- Jones, C.E., 2015. Transit-Oriented Development and Gentrification in Metro Vancouver’s Low-Income SkyTrain Corridor. Neighbourhood Change Research Partnerhsip.
- Kahn, M.E., 2007. Gentrification Trends in New Transit-Oriented Communities: Evidence from 14 Cities That Expanded and Built Rail Transit Systems. Real Estate Economics 35, 155–182. doi:10.1111/j.1540-6229.2007.00186.x
- Mapa de la Zona Metropolitana del Valle de México, que se extiende por todo el Distrito Federal (16 delegaciones) y parte de los Estados de México (59 municipios) e Hidalgo (un municipio)., 2006.
- Medina Ramirez, S., 2015. El alarmante crecimiento de autos.
- Medina, S., Veloz Rosas, J., 2013. Transit Oriented Development: Regenerate Mexican Cities to Improve Mobility. Institute for Transportation Development Policy, Mexico.
- Mejia, J., 2014. Habitantes del DF rechazan normas 30 y 31 propuestas por SEDUVI. Excelsior.
- Mendoza, G., 2016. ¿Qué gana la Ciudad de México al dejar de ser Distrito Federal?
- MLED, 2016. Recomendaciones de Política Federal para impulsar el Desarrollo Orientado al Transporte bajo en emisiones en las ciudades mexicanas.
- Newman, K., Wyly, E.K., 2006. Gentrification and Displacement Revisited A fresh look at the New York City experience (No. Research Bulletin # 31). Centre for Urban and Community Studies.
- OECD, 2015. OECD Territorial Reviews: Valle de México, México.

Antonia Burchard-Levine
Master Candidate –Urban Management
Technische Universität Berlin

OECD, 2015b. OECD Urban Policy Reviews: Mexico - Transforming Urban Policy and Housing Finance: Policy Highlights.

Órgano de Difusión del Gobierno del Distrito Federal, 2014. Gaceta Oficial Distrito Federal, Decima Séptima Epoca, no.1965.

Órgano del Gobierno del Distrito Federal, 2005. Gaceta Oficial del Distrito Federal, 41.

Ortega-Alcazar, Li., 2006. Mexico City: Housing and Neighbourhoods.

Ortiz, I., 2016. Complexities in the affordable housing market in Mexico City: undersupply and pro-car policies.

Pendall, R., Gainsborough, J., Lowe, K., Nguyen, M.T., 2012. Bringing Equity to Transit-Oriented Development. Presented at the Brookings Institution Press.

Pollack, M., Prater, B., 2013. Filling the Financing Gap for Equitable Transit-Oriented Development Lessons from Atlanta, Denver, the San Francisco Bay Area and the Twin Cities.

Pollack, S., Bluestone, B., Billingham, C., 2010. Maintaining Diversity In America's Transit-Rich Neighborhoods: Tools for Equitable Neighborhood Change.

Rojas, C., 2012. Three Ways to Put Equity into TOD. Living Cities.

Ryan, M., 2016. Affordable housing and transit should go hand-in-hand. Mobility Lab.

Salinas Cesáreo, J., 2016. Mexicable, primer teleférico que será usado en México para transportar pasajeros [WWW Document]. La Jornada. URL <http://www.jornada.unam.mx/ultimas/2016/09/07/mexicable-primer-teleferico-que-sera-usado-en-mexico-para-transporte-de-pasajeros> (accessed 1.24.17).

SEDUVI, n.d. Plan CDMX.

Seifel Consulting Inc., ICF International, 2013. Bay Area Transit-Oriented Affordable Housing Fund Assessment and Lessons Learned.

Sociedad Hipotecaria Federal, 2015. Estado Actual de la Vivienda en México 2015. Fundación CIDOC / SHF, Mexico.

Soursourian, M., 2010. Equipping Communities to Achieve Equitable Transit-Oriented Development (No. Vol 22, Issue 2), Community Investments.

Suzuki, H., Cervero, R., Kanako, I., 2013. Transforming Cities with Transit: Transit and Land-Use Integration for Sustainable Urban Development, Urban Development. The World Bank.

The Big Picture Project, 2016. Progress Report 2016 Twin Cities LISC.

Antonia Burchard-Levine
Master Candidate –Urban Management
Technische Universität Berlin

University of California Berkeley, 2017. Urban Displacement Project [WWW Document]. URL <http://www.urbandisplacement.org/> (accessed 1.28.17).

Yager, J., Herrine, L., Mian, N., 2016. Gentrification Responses: A Survey of Strategies to Maintain Neighborhood Economic Diversity.

Young, K., 2009. Equity, Gentrification, and Light Rail.

Zuk, Mi., n.d. Regional Early Warning System for Displacement Typologies Final Project Report 9/1/15 (Updated from 7/23/15 version).

Zuk, Mi., Bierbaum, A.H., Chapple, K., Gorska, K., Loukaitou-Sideris, A., Ong, P., Thomas, T., 2015. Gentrification, Displacement and the Role of Public Investment: A Literature Review (Working Paper 2015-05). Community Development Investment Center.

11 INTERVIEWS

Aviles Gomes, E., 2016. Interview 4.

Flores Dewey, O., 2016. Interview 2.

Gonzalez, S., 2016. Interview 9.

Herrera Montes, S., 2016. Interview 1.

Macgregor, J., 2016. Interview 10.

Morales, A., 2016. Interview 7.

Moura, I., 2016. Interview 8.

Pollock, J., 2016. Interview 6.

Suarez Lastra, M., 2016. Interview 5.

Zamorano, L., n.d. Interview 3.

12 ANNEXES

12.1 INTERVIEWEE LIST

Table 5. List of Interviewees

Name	Title	Date
Interview 1: Salvador Herrera Montes	Consultant; Founder of Urbanistica; Professor Faculty of Architecture UNAM (TOD)	25-Oct-16
Interview 2: Onésimo Flores	TOD Expert, Lecturer in Urban Planning and Design at Harvard University; Research Associate	8-Nov-16
Interview 3: Luis Zamorano	Director General of Urban Development at the Secretariat of Urban Development and Housing (SEDUVI)	10-Nov-16
Interview 4: Edgar Aviles Gomes	Spokesperson of the neighborhood association for the defense of the Roma-Condessa-Hipodromo neighborhoods	12-Nov-16
Interview 5: Manuel Suarez Lastra	Director of the Geography Department of the National Autonomous University (UNAM)	15-Nov-16
Interview 6: Jody Pollock	Consultant; specializing in governance, urban development, and housing,	16-Nov-16
Interview 7: Alejandro Morales	Representative Grupo Prodi (real estate developer)	17-Nov-16
Interview 8: Lurio Moura	Urban Development Manager at ITDP Brazil	6-Dec-16
Interview 9: Sergio Gonzalez	Leader 0600 Platform and Observatory for Juarez Neighborhood	1-Dec-16
Interview 10: Josefina MacGregor	Leader SUMA URBANA	9-Dec-16

12.2 INTERVIEW TRANSCRIPTS

12.2.1 Salvador Herrera Montes

Consultant; Founder of Urbanistica; Professor on the topic of TOD at Faculty of Architecture, UNAM

October 25, 2016: 12:00-12:30 (SEDATU)

Antonia Burchard (AB): In your opinion, how does the implementation of TOD in Mexico City affect the valuation of the land; does it result in processes of gentrification and displacement processes in the CDMX?

Salvador Herrera (SH): My thinking is that there is no TOD implementation in Mexico City because there is no policy and instruments derived from that policy for TOD implementation. There are projects that cover some aspects of the characteristics of a TOD project. For example, one could be Reformation 222.

AB: But in Reformation 222 there is no social housing?

SH: It does not, so in a sense it fails because there is no normative framework for TOD projects, so I think there is no implementation.

AB: In your opinion, how can the processes of gentrification and displacement of low-income populations be mitigated during the implementation of TOD?

SH: The first point would be to include in the constitution of Mexico City the legislated obligation of the government of Mexico City and all the instruments and all its regulations to monitor that social housing is a priority in the implementation of urban development, and that is not yet a reality. So after it passes through the constitution it would simply make adjustments in the laws of urban development in Mexico City that is also not contemplated, because we have at the moment a housing law that has just been published but hardly touches the subject TOD, and when it touches it, tackles it conceptually. So we do not have one, and it is related to the first, instruments that are mandatory and we do not have incentives either.

AB: So, speaking of incentives, what would be the viable incentives for the development of social housing using the guidelines of TOD in Mexico City?

SH: I believe that at the level of government, incentives, one, should be land management mechanism, both to control land prices although this is very difficult to do, also the mechanisms to transfer potential for development, which is a mechanism, which is already being implemented. Here in *Reforma*, there are many buildings that benefit from this mechanism but that is not included, meaning that it does not transfer that potential to *Reforma* once it is bought, with the obligation that social housing is provided, then the developer earns more than the development that it purchased, more than the potential, because it is dedicated to market housing.

AB: Then it is because in the end the houses are left to the free market.

SH: Totally. And it is not legislated in favour of social housing. Mexico City has the principle that social housing is done by the Housing Institute (INVI) but INVI has many limitations in financial terms, in strategic terms and in addition it is co-opted politically, and this is very complicated. Housing policy that is co-opted politically by a political party, simply does not work.

AB: What would be the incentives for the developers or the private sector.

SH: I think there are several incentive packages. One is access to land at better prices. Two, it is regulatory and administrative improvements, so that the projects are approved more quickly and more easily. Three, is to designate zones of potential D TOD, that that already comes in the discussion of the new General Program of Urban Development (PGDU) of the City of Mexico. But these areas have to be much better delimited, even at the level of polygon, clearly traced in the PDGU, at this moment is conceptual, meaning it is not legislated so you have to reach that level but for it be able to legislate, reach the Level planning, there has to be a legislative layer in the constitution in the urban development law. That is not the case, although at the level of Mexico City could be achieved. Then there are incentives in building exchanges, much has to do with the provision of parking lots, because a lot of the costs (and there is an ITDP study of parking lots)

Antonia Burchard-Levine
Master Candidate –Urban Management
Technische Universität Berlin

proves that we have more parking than we need, induction of Traffic it generates, so the reduction of parking lot, which the study poses, is closely related to the implementation.

AB: In your opinion, do you see it as feasible to change this soon?

SH: It has to be more and more obligatory and we have to start with quotas. The main issue is that the city is being densified without the benefits of the densification that is, more public space, or accessibility, etc. So at this moment we have something very serious that is that the market has accepted densification, it has become a mechanism of sale without the due public policy of densification, then we are losing the opportunity because also the central areas are being densified, because let's say those New buildings will be there 30 years, then you are missing a significant opportunity.

AB: And you're also missing out on the opportunity to coordinate with transportation.

SH: Transport as you want it, is there. That is the great potential that the city has, it already has the transport network and it is expanding.

AB: So, at the beginning you told me that you would not say that DOT is causing gentrification or displacement because the TOD is not being implemented.

SH: It is the densification that is causing gentrification and that is very clear in the *Granadas Colonia* ... and in *Reforma*, for example.

AB: From what I have seen so far, the subject of gentrification, is not a subjects of which there is much talk of in Mexico City at the moment.

SH: It is not spoken with that word. But yes there is a great movement to that respect, I would say that it is not beginning, there is already a very important movement of communities of *colonias*, or annoyed neighbours because now what they see is the arrival of the building and instead of being a positive factor of urban insertion, it's a point that steals services: water, parking, space, light, those are very important, natural light, ventilation, blocked sight, public

Antonia Burchard-Levine

Master Candidate –Urban Management
Technische Universität Berlin

spaces, etc. Then in many cases there are displacements of traditional communities of inhabitants, due to this new projects. And it was what was going to happen with the project of the Cultural Corridor Chapultepec, a lot of exclusion was gentrification but from my point of view, the process of gentrification of *Colonia Juarez* already began many years ago, but it is very difficult for neighbours to fight project by project. Because as there is no plan that says, well this area is going to change density in such a way, and of fights by the complete strategy, the neighbours have to go fighting building by building and that wears a lot, or greatly reduces the potential impact of the neighbours. But what has been seen is that, for example with the non-update of rule 26, which SEDUVI has already submitted, I believe that two new proposals have been rejected by the neighbours, by the deputies representing the neighbours in the legislative assembly. Therefore, yes it is very present in the mind, the fear of gentrification, as I say, perhaps not with that name, but displacement, or forced displacement.

AB: But for example, in your opinion, it would be possible to make a correlation between the investment in the transport infrastructure and these processes of gentrification or displacement, even in the very long term. For example, if we see what is happening in Juarez, could you say that such displacements can have something to do with investments in infrastructure that have not been captured in a way to benefit all stakeholders?

SH: I believe that investment in transport infrastructure has not already raised the advantage of location of certain points in the city and then the market is only interested in those points. The government of Mexico City has not had the instrumental ability to foster other areas of development. To de-saturate already saturated corridors, such as *Reforma* or *Insurgentes*, and create new centralities. They have had some mechanisms like the ZODES but they have failed, they have not succeeded. I believe that the last experience that has had to create centralities, with nothing to do with TOD is *Santa Fe*. But *Santa Fe*, was created under another concept, is a centrality, not as we want, in TOD terms, but in employment and housing.

AB: And in your opinion, do you think that the TOD can obtain social benefits and social equity in Mexico City, and if so, how would it have to be implemented?

Antonia Burchard-Levine

Master Candidate –Urban Management
Technische Universität Berlin

SH: Well I'm convinced that, yes, that TOD is a tool to achieve this. But as we are, Mexico is a very weak country in regards urban affairs, because in 40 years, it had an expansive urban development and lost all institutional, legislative, and management experience, intra-urban development then as now the mandate, is to return, the mandate inclusion by national legislation, the new urban agenda to return to intra-urban development, Mexico does not have enough experience, is starting again, and is attracting his knowledge of expansive development and applying to Intra-urban development, and this is a big mistake, for example, to use the same types of environmental and urban impacts for an expansive development that for a development within the city does not measure the co-benefits that an intra-urban development generates then puts Tax credits to that development as if it were in the periphery, not suitable to the norm. Development in the periphery is characterized by being free demand. Then the developer bought the floor where it suited him and by free demand generated the whole process, is happening exactly the same in the intra-urban development, without vision of the complete development. Then he worries about the building in specific, but not for the complete development.

AB: If Mexico City wants to implement a TOD strategy, and we want to prevent the processes of gentrification and displacement (which have happened elsewhere) what would be your suggestions in terms of public policies or incentives?

SH: First you would have to see cases from other parts, because the approach is very different in the United States and in Canada than in Latin America. For example, now that we were in Ecuador and they are getting a very interesting TOD regulations around the future metro, then Colombia also has, and Brazil a little, have other mechanisms that the Lincoln Land Institute is promoting a lot in Latin America.

AB: Of course and the reason I'm looking at cases in the US is because there is a lot of literature that specifically talks about the topic of gentrification and displacement in relation to DOT, and perhaps it is not the best example to compare it to Mexico.

Antonia Burchard-Levine
Master Candidate –Urban Management
Technische Universität Berlin

SH: Of course, I think the state of the art still does not link those two elements of DOT and Gentrification just because there are not many TOD projects, and it's still very good. But I think that what is important for Mexico City is to understand that in those other countries have suffered these processes and must be treated in a timely manner, but since we are so few, very little foreseeing, then there is no culture of vision, then We act more in terms of trial and error.

AB: So in your opinion, you think it would be feasible to find instruments, policies or incentives, or even social processes to prevent these negative consequences that may arise after TOD implementation.

SH: If there are a couple of instruments in Mexico City that could already receive the TOD concept to adapt it but today it does not, because Mexico City already has an exchange of development potential, which I told you already a moment ago, mechanism, and the areas are already assigned, but they are not linked to the TOD, so they lack a small technical step that they are not giving, but I think if they have it soon, they are waiting for it to be constituted, then the law, and then the rules, for example the rules of SEDUVI, that I think is the level that is the last instrument where one has to work.

Already when you get to the standards at the level of standards and planning instruments, because there are two areas, that do not equate, and if you want to get TOD, you get a headache because one is parking, which goes with certain rules, and in addition there are the regulations.

[End of Interview]

12.2.2 Onésimo Flores Dewey

Lecturer in Urban Planning and Design at Harvard University; Research Associate, Transforming Urban Transport-The Role of Political Leadership

November 8, 2016/10:30-11:30 (Polanco)

Onésimo Flores Dewey (OFD): I'll start by giving you some context. After completing a Master and a doctorate I got into the subject of public transportation. My undergrad is a BA in law, I have a master's degree in public policy and my PhD in Urban Planning, and then I got into the

Antonia Burchard-Levine
Master Candidate –Urban Management
Technische Universität Berlin

subject of transportation. When I graduated, I started working on a research project that was hosted at Harvard and MIT. The last classes I gave that ended last June were a practicum, a class that you have to have a real or imaginary client, with 15 students having to develop a public policy to promote TOD to the city government. Then on the first of December we are going to present the document with the findings. I think it would suit you, or better with the students who participated in the class they went to and got into *Tacubaya, Cuatro Caminos* etc. [...] And the topic of gentrification is a theme that was very present.

Antonia Burchard-Levine (AB): Then they saw the issue of gentrification.

OFD: Yes a lot, it's always a concern. As a context I would say that my opinion, is that if gentrification is a problem, but it is a problem that exists with or without TOD. It is a terribly gentrified city, and social housing policies have accelerated this process of gentrification. It is too easy to buy cheap housing in Mexico, but that housing supply is always far away, so if there is a very strong debate [...] that attacks much the developments that may be in downtown areas of the city due to the issue of gentrification [...] because the issue of gentrification has already happened and what you find now are efforts by some entrepreneurs to enter the housing market and buy a very difficult territory.

AB: Many experts comment, they do not see that they are implementing a TOD strategy in the city, and maybe there are some projects that have elements of TOD. So to begin with, what do you think about the implementation of TOD in Mexico City?

OFD: Yes, the TOD exists. Despite public policies that encourage people not to make developments around the stations. In Mexico City, you will find that if there are densities that allow a TOD, it is not the Asian density hyperdensity, but neither is Houston. In one part of the city, you can walk to the subway, submit to the *Metrobus* and live a life that allows you to have little use of the car. But you also have a city, that the conditions for motorists are so bad, the congestion is so terrible that also that incentive to reduce the use of the car, but that does not exist as a public policy. And find several things that are counter intuitive compared to other places. Today the properties that are close to the stations have a demerit instead of a "plus" in terms of their real estate value, and one of the possible reasons is that there is no public policy

Antonia Burchard-Levine

Master Candidate –Urban Management
Technische Universität Berlin

that can help private developers, Capitalize on that approach. So a good place, for example, is *Tacubaya*, of untapped potential. You have 3 metro lines, a *Metrobus* line, it is hyper downtown, one kilometer from the *Condesa*, one kilometer from *San Miguel Chapultepec*, a hipster area, but you walk around and it is a terrible area. Because if you own land there you have no incentive to put money into your buildings. Because it has a lower value of properties in similar conditions that the centrality should demand in the market.

AB: And you think that this is specific to Mexico City, or is a pattern that is seen in many places.

OFD: I think it is similar to many countries, I do not want to say that Mexico is a sub-developed country, but in countries where urban planning, central planning, system vision and not individual vision, is very weak. Then in *Tacubaya*, the transporters took over the street, that is not a plan, but that is a fait accompli. The street vendors have taken possession of the sidewalks, and that is a fait accompli. So, if I want to go buy a building, and say "well you're next to the subway, look at that great value" because it is not so clear that I am going to be able to rent that building at a higher value than I could rent it in a Place less communicated.

AB: So an aspect that does not help to value real estate near the stations, has a little to do with the informality that attract the seasons.

OFD: One part is informality, and another part that we have not achieved is a public transport service of such quality that it becomes something aspirational. When you talk about getting on the subway, there is still a stigma of social class. And it has to do with a more serious problem that we have, that we can not fund public transport ... then the rate pays 100 percent of the minibuses, there is no subsidy. The government subsidy for public transport sucks the subway, and much is not enough. Then you have a policy of cheap rates, which makes the businessmen who participate in that sector earn little, with limited margins, can not raise capital. Then the quality of public transport, not in terms of availability, but in terms of negative externalities of public transport, such as pollution, congestion, road safety, things like that. So if you can pay something more, live near the public transport, until today we have not managed to become something, something that demands a higher price.

AB: So the people do not look for proximity to the stations of public transport.

OFD: I think that's changing. People's tastes, habits of consumption, what is considered good quality of life, that conception is changing

AB: And that's because?

OFD: Social and cultural changes, the 'hipsterism' associated with that cultural change, you find an increase in prices, and finding these increases in prices, you find problems that we do not have enough in the city [...] then the historical inside, the Street of Regina, is a success story for all the junkies of mobility, like me, we made the pedestrian street, we removed the cars, we changed the type of commerce that there was, it is not so much wholesale, but the retail of all the Days, restaurants, then it is a success.

AB: But for whom?

OFD: But it turns out that those who lived there, can no longer live there.

AB: So what would be the policies, incentives, or even social processes to prevent that? How can a system be formed in which this does not happen, or in which the inhabitants who were already there can also generate benefit from the new developments.

OFD: That is a phenomenon that is associated with the success of the profit gap, which is a problem and must be understood with public policy, but let's say that today they are already TOD politics, you already have a serious gentrification problem in the city. And you can see that the poorer you are, the more time you spend moving to work. There are people who spend an hour and a half, two hours. So you ask yourself, how can I reduce the price of a home in a place where land is very expensive, I think there are several alternatives. One is, eliminating parking policies, there is an issue that involves carrying a social process with neighbors. And that's politically complicated, because they believe there will be more cars on the streets. So that is one, to unlink the price of parking at the price of housing.

AB: So if a community together decide to remove the parking requirement policies, they can get them to do it, and in Mexico City it is mandatory to include parking lots in the housing developments?

OFD: It's complicated but there are several tools that allow it. Second, the value of housing must be decoupled from the value of land. As it is in England, as it is in Asia, you can have a long-term lease, like saying "I have a lease-hold" but not a "free-hold" on land. And by unlinking that, without turning the user into a tenant, that is, having a time horizon long enough to own a property in such a way that it can benefit [...] is something that does not exist in Mexico. And number three, is to take advantage of the huge stock of public land in the city to increase the supply of housing.

AB: What would be the percentage of public land in Mexico City?

OFD: I do not have the percentage, since there is a great opacity. Sometimes the government does not know what it has. But to put a couple of examples, you have 350 public markets in Mexico City, where you could accommodate 70 thousand homes. You have 200 subway stations, most of them sub-used, where you could put local ones. And number four, you can reduce the price of housing by putting the house closer to the work, because if a person spends X percentage of their monthly income on housing plus transport, if you reduce the cost of transportation these increase their ability to buy more housing. If you do that, you could give him a bigger credit which would allow him to buy more expensive land. These are things that the market has not explored. Then there are a number of tools that I am describing that require a public policy of the government so that you can attend to these. I started by telling you that in Mexico there is OD, despite the government. If you go to line 12 of the metro, you will find examples of developers who next to the new stations, they put a building.

AB: So it is more a phenomenon of the free market than impulses of the government?

OFD: The ITDP has a document out there that shows how there is no correlation between greater density and closeness to the stations, and on the regulation of density and closeness to

Antonia Burchard-Levine

Master Candidate –Urban Management
Technische Universität Berlin

the stations. There are areas of the city that you can build very high, but there is no public transportation. And there you leave the city, and there is underground but they do not let you build anything. But where I think I can contribute to talk to you after I have gone from academic to practitioner, is that the bad regulation that exists is a symptom of a bigger problem. That is that there are not the right incentives for private initiative to put money into good projects. For example, today, Mexico is building highways of quota everywhere, and we can discuss for hours the ugly ones that they are, but the fundamental problem is that they have already found a mechanism that banks are willing to finance, that the market is willing to absorb, which the construction companies understand how to finance. There is already an infrastructure of this type, without the government putting money. Then you have a pipeline of endless projects, good or bad. But there is no such thing for TOD projects. If you look at the INFONAVIT credit statistics, which is the government's forced savings program to finance housing, you will find that the number of credits designated in the city of Mexico is a ridiculous number, and the reason is because with everything of INFONAVIT, with all the subsidies given by CONAVI to housing, you can not afford to put a house at that price on the market. So that you have here, then that all those who want to invest in money and time, to build here a building of 20 floors, you can not find any government support. The only example that have now been their terrible defects is the subject of CETRAMS. The theme of the CETRAMS is 100 percent a private project where it was the entrepreneur who bought the land, I am talking about the first CETRAM that is *Ciudad Azteca*, the entrepreneur bought the land, financed the litigation, so that the government could become the land that was a union, so that later the government could bring that land into a real estate development project. It was the businessman who had to negotiate with the hawkers and the transporters, some to be removed and others to enter. And gave a project that by design is impossible to make housing, because the framework does not allow it. Therefore, as it is a public land, you can not sell public land, the only thing you can do is rent housing. And who wants to rent a house in *Ecatepec*, if 5 km to the north it is possible to buy an INFONAVIT house. Then they had to enter pure commerce.

OFD: That project ends, at the door of litigation, ...

No lighting is a thing that transcends what the entrepreneur can do. Then the project ends where it ends, in the space of the public proposal, in government did not deny that.

Antonia Burchard-Levine

Master Candidate –Urban Management
Technische Universität Berlin

OFD: The government did not have to put anything. With all the defects that this building has, there are many, as it is a project that is financially supported in the rent of the premises, for your maximize the income of the incomes, because you need a design, a mall, to increase the meters Profitable that you have. If you and I as urban planners go, we are going to say 'how terrible, who came up with this', if tomorrow I invite you to do a project you will have, zero public income, zero possibility of charging users to someone else for services, Has to be a sufficiently profitable project. So that companies that had never invested in renting a subway station a place to sell things will trust that it was going to be good business. Then a thousand design flaws.

AB: Would you say that part of the project failures is due to a lack of coordination between different entities? Because everyone does what he wants.

OFD: That project happened because no one works together. The government of Marcelo Ebrard sees the project in *Ciudad Azteca*, and says "look what a good wave, I will do ten" with a model where there is more accountability, where he is deprived of this more involved, where there are more participant groups, where the government takes the process of the designs so that they comment about the errors. Then a consultant called Oren Tatcher, who is dedicated to designing airports, and offices in Hong Kong, was consulted and made the mega designs of those 10 CETRAMS. It was a year of work, or more. And they wanted to go to the other end. To an extreme where the private proposed what they did, then those 10 CETRAMS, have already passed 5 years and not one has been made. The only one that was made is that of *Rosario*, that in which I work. The *Chapultepec* is beginning to build and not with the designs that had Oren. There is one that has the new child's museum, which is said to be a precious project but it has taken a lot. And part of that has been several things. Many entrepreneurs who have the know-how, such as negotiating with hauliers and hawkers. There are a lot of people who know how to do malls, but when you tell them to "build an evil here" they tell them "then you clean the land". Number two because they are projects in which financial viability is complicated, we have to bury a lot of capital. Then in the case of *Del Rosario*, the government told the private, "I will not give you the management of transportation, you just do the mall," the transport is still the same, in better conditions than before, but not close. Like the one being done in *Cuatro*

Antonia Burchard-Levine
Master Candidate –Urban Management
Technische Universität Berlin

Caminos. When they expanded line 6 of the metrobus, which ends in El Rosario, the government itself decides to put the metrobus station outside the building.

AB: In none of these projects, was there anyone who suggested integrating housing or social housing? What would be the necessary instrument to integrate it into future projects?

ODF: In the speech already, this is already super mainstream. So if you talk to any official, you talk about shared streets, complete streets, mixed uses, social housing in the speech and this. But there is no public policy that can encourage the private sector. I was working 4 months in a project to put housing in all the stations of [...] I had 25 meetings with the city government, in all they said yes, but it was never done.

AB: So what does it take to face these great challenges?

ODF: First you have to remove from the head the idea that they can do everything in the public sector.

AB: So what is the incentive for the private sector, or the inventors?

ODF: The return.

ODF: Social housing for sale I think it would be a mistake for the government to sell in a single round, a cheap house in a central area, because that house is going to be appreciated, the family is going to sell it, and when the band is going to sell it to Higher price you can get.

AB: So what control mechanism would there be for these cases?

ODF: Long-term income, but they do not even want to do that. **The problem with TOD is that too many monkeys have to stand still so the picture goes well.** So to give you the example of the case of *Tlalpan*, the land is underground, but the authority to authorize changes in land use is the Secretary of Urban Development. And the city budget that finally gives income to the metro also has its own fiscal restraint agenda, so the head of government wants to increase the

Antonia Burchard-Levine

Master Candidate –Urban Management
Technische Universität Berlin

supply of social housing in *Tlalpan*, the metro says "I what I need is more money, I want Maximize my income, from what comes out of this land "These two public policies that are reasonable, to give more money to the subway and to put more money to social housing, are two public policies that are facing. Nothing else with that, assuming that everyone has good faith and you got stuck. And then add to this, a whole political and ideological discussion "that here the government should do everything." So if you want to do something, you have to be prepared that you are going to [...] leave, there are many forces that lead you back to the status quo. The government says "because this city more or less works" and the businessman says "because I have more or less many opportunities to make a lot of money in less complex projects" therefore, better to do a wrong where there are fewer actors, Then the best example is *Tacubaya*. *Tacubaya* could be the financial district of the city, with only towers of 50 floors, and with all the capital that goes from there, to finance the program of social housing throughout the city. But, you would have to talk to 300 property owners, with 1,500 street vendors, with the largest groups of transporters in the city, and you can solve everything by grabbing the public market that is there, which is horrible, and the square, and a giant parking lot that is there, put underground trucks and free all that land and detonate that people who have been sitting on those buildings can capitalize private to develop projects.

AB: So from what you tell me, there is a tremendous lack of coordination between governmental, private entities, etc. What can be done to better coordinate? What needs to be done to make these entities work together, even if it is a very long-term solution?

ODF: Your thesis. What I can give you are the two defects of two possible answers. Answer one: that everything is coordinated, for a long-term plan, a great process of civic discussion in which all the actors gave their priorities and we find a concession, and based on that consensus, we take a basis of concrete metrics, and decide Build condo, and how and then give them that plan through this democratic social concession to an executor. You are talking about a project of a sexenium to have discussions in which you assume that the problem we have is an information problem in which if all the actors were informed, we would all find a concession in the end. But the reality of a heterogeneous city like the one we have, everyone has different interests that are by nature incompatible. Sometimes we can have a consensus that a project is good for the city, but then the individual is very angry. And that's not a problem convincing you, it's a

Antonia Burchard-Levine

Master Candidate –Urban Management
Technische Universität Berlin

problem and period. For my taste here we would be 15 years and nothing happens. The other extreme is not asking. This is the most opaque, but anti-democratic version. The second floor, nobody asks and there it is. Metrobuses were agreed by carriers but not with neighbors. The metro lines, metro line 12, the airport they are going to build now, there was no consensus. There was a public consultation of the state but no more. And once you are done you already negotiate on the margin. A thousand problems. To begin with, we need strong government that we do not have. In between these two, what you have are small opportunities of short time windows, that the government and the private initiative with landed interest in the city converge. They are small projects, punctual, could be controversial that give you chance to do as acupuncture.

AB: And for those projects, which actors would have to work together and come to an agreement?

ODF: Let's see, the rescue of the historic center. The government of Ebrard, and Lopez Obrador, Carlos Slim's great private at one point made an incredible recovery of the Historic Center, which detonated a serious problem, which was without any democratic processes.

AB: And I imagine that in the rescue of the historic center, there were many cases of displacement.

ODF: Surely. I would tell you that there was already a problem of displacement to the degree that many houses were used as cellars, for the street vendors. If you have a house, it is better to rent it from the cellar than from the house, it is safer for you to pay the rent and demand less, and you have problems with tenants. Then there was a process of displacement of the historic center. Another example may be CETRAMS. A private finds an unmet need and presents the government, which will not have to pay a cent, and presents it to a government that is in debt, which is the government of the State of Mexico, which has no margin to invest in its public infrastructure.

Antonia Burchard-Levine

Master Candidate –Urban Management
Technische Universität Berlin

But if you look in recent years, revitalizing urban issues in the city, a return of the city by investors, are no longer building Santa Fe, are building Reform. You are already beginning to see that the market itself is seeing the value of mixed land uses, living close to employment, and so on.

AB: So how to integrate social housing into these projects?

ODF: There are many mechanisms. The cross-subsidy is one, you can charge the developer a number of living or an amount of money to be able to invest in a social housing infrastructure

AB: So that's for the government to promote these instruments?

ODF: Of course.

[...]

ODF: And what is the success of INFONAVIT, is that they created a financing turbine that allows banks, it was a good business to invest in social housing. Far from the city if you want, but finally there is a model of living that finances the INFONAVIT. Because you know that the one who is going to give a credit is going to pay, you know that there is a market, there are people who need housing, the INFONAVIT will pay you discounted your house. And the INFONAVIT charges the worker, you do not charge him. There you have an example of a public entity, which detonated an industry. There is no longer the problem of the paratroopers, of the shantytowns. And there is no such thing for mixed-use housing in the centers. And the government does not use the instruments that are within its reach, for example access to land, access to regulations, to really encourage that. But there is also a lot of trap to the system, and many projects have to be cancelled. What do you need? Examples such as *Metrobus*. *Metrobus* arrived with transporters, made them partners, made them dealers and I will guarantee to the banks that you will be able to pay the loans of the trucks because we are going to take of the tariff. And you already have a new *Metrobus* every year of the private incentive and the governments are linked.

[...]

ODF: The main reason for the displacement is that there is no offer. We can make war on vanity urbanism and say that is what gentrification is, but what is gentrification the city is that there is not enough housing. That's what's happening. And there is a lack of housing, as I told you, one, because the land is very expensive, and two, because on the outskirts there is very cheap land. If you do not have a government to impose will, and you do not have democratic processes and then ways of supporting the concessions, you do not have the option of promoting micro-projects. Show the market that it has value, and replicate. Once the concept is validated, it can be applied.

[End of Interview]

12.2.3 Luis Zamorano

Director General of Urban Development at the Secretariat of Urban Development and Housing (SEDUVI)

November 11, 2014/11:00-12:00 (SEDUVI)

Antonia Burchard: I understand that they are in the SEDUVI implementing an urban regeneration program, which puts special emphasis on TOD? You can talk to me about this project. Do they include social goals or social inclusion, as well as social interest housing?

Luis Zamorano: I'll start by explaining the personal panorama, which I share with the institutional, for the issue of the city's rising price. That I do not think it is necessarily linked to the subject of TOD, but that is probably something that is happening throughout the city without caring too much about the issue of proximity to public transport. Mexico City, not necessarily the metropolitan area but the 16 delegations, can no longer be expanded territorially, first by its north and east side because we are already completely conurbated with the metropolitan districts and in the west and south we should not expand because We have the land conservation line

AB: And that's due to land conservation legislation?

Antonia Burchard-Levine

Master Candidate –Urban Management
Technische Universität Berlin

LZ: Exactly, we have at least since 2000, it was legally decided and that at the level of urban development program of territorial and ecological order, that the city no longer expanded because its expansion to the land of conservation because it represents a loss of The environmental services of the city, then, it must be said that if it continues to expand in terms of irregular settlement growth, but not formally, i.e. there is no possibility of having a new fractionation legally constituted towards the land conservation, Which occurs is irregular. Then the land has become more expensive. Finally, the 16 delegations, mainly the central delegations like *Benito Juárez, Cuauhtémoc, Miguel Hidalgo, or Azcapotzalco*, and certain parts of *Álvaro Obregón, Tlalpan, Iztapalapa*, etc. Those that are more central, those that are closer to the sources of employment of the equipment, and schools, and mass public transport, too, since they have become expensive and then one can no longer find a new home, I would say That of less than a million pesos, then, what options have the low income people or even the young, who are at the age of forming families and who want to become independent, since suddenly can no longer access a well located housing if not that they have no other than to go to live in the State of Mexico, in these fractionation dormitories, when they are beneficiaries of INFONAVIT and all FOVISSSTE and can access a credit of a small house in *Zumpango*, which is Hidalgo and so on. A house that costs 350 or 400 thousand pesos, then through their access to housing credit because they are entitled, then they can buy that. And if they do not have the possibility to buy, the best they stay fluttering in an area well located in their parents' house etc. Or those who do not have any of those options are likely to remain in an irregular settlement on the conservation soil. If there is a process of costing the sole of the City of Mexico very significant that of course, represents or generates topics of gentrification. At the same time people are probably young people from other states (*Monterrey* etc.) and I see in the last years a strong wave of young professionals, mostly, who come from all the states of the republic to look for more opportunities or before Issues of insecurity in other states, now paradoxically Mexico City is safer than many other cities, then you come here. I see it myself in my own family. They came to try their luck or their own companies place them here. Some remain others return. And because there is not enough housing that is required in Mexico City, then those who can afford to pay, displaced those who can not afford it. That's a bit of a gentrification process, but I would say that it is not necessarily linked to the areas close to public transport, but to well-located, centric areas, etc.

AB: So you could say that there is a correlation between public investment or other investments (in urban infrastructure) with the issue of gentrification, rather than necessarily the subject of TOD and gentrification.

LZ: If I would say that the issue of gentrification in the city is mainly due to the lack of sufficient housing to cover the demand. They are spoken of there, they are numbers of which we do not have the certainty, but that is repeated, it is said that the city requires every year 40 thousand units of new houses. And because there are many young people who are already in the city and many young people who have come to the city. So that leads to the city continue to produce new housing units every year. And the real estate companies say that the city is only generating 10,000. The fourth part. It is an estimate of, I think, the CANADEVI of its chapter of the valley of Mexico. So that means you have an unsatisfied demand of 30 thousand. That makes that 30 thousand are in the periphery and place of giving in well-located areas. And that the 10 thousand that if they occur in the Valley of Mexico become more expensive. And then you have centric colonies that were aimed at middle and lower middle groups, for example the Guerrero colony or areas near *Tlatelolco*, where you now go and the offer of housing starts in a million and a half. Then not accessible, and even many young people who grew up in the *Guerrero*, for example, and that their parents live in the Guerrero, now they will not be able to access a housing in the *Guerrero*. And also because the rents has gone up a lot, then in the *Guerrero* where the rent already walk in 10 thousand pesos, the new. There is a data that the average of the *Guerrero*, is 6 thousand pesos. So how much do you have to earn to be able to pay an income of 6 thousand pesos. We are talking about that maybe you have to pay 20 thousand pesos, which is already well above the average income of the City. So what happens is that we are not producing at the pace that is required by the city and the young people. And that makes us expensive and expels us. And I think that the issue of gentrification in Mexico City is a reality, but it is not linked to the issue of public transport, but to the issue of the scarcity of well-developed land.

AB: So let's go back to the TOD projects in Mexico City. The phenomenon you are explaining leads to an urban expansion, an expansion of the urban spot that is precisely what the TOD seeks to contain. So the hypothesis that I am proposing in my thesis is the fact that it is

Antonia Burchard-Levine

Master Candidate –Urban Management
Technische Universität Berlin

necessary to integrate housing of social interest, or at least affordable housing in TOD projects. For example, there are examples of projects that have aspects of TOD projects, for example here in the *Reforma*, but do not have social housing. And none that has an emphasis on housing of social interest. So, do you have projects that focus on housing? Or is this subject that is discussed in SEDUVI?

LZ: There is an interest, but there is no project. What happens, because it has become so expensive, that what happens is that we need more land that can be developed so that it can lower the price, or we need to be able to subsidize well-located housing of social interest. But that if what we have is only development that cover only the fourth part of the demand, it does not work, it does not work. And it will not work by decree. That is what happened to Rule 26. Rule 26 is a rule that exists, but is suspended. It has been suspended for two years, because there was abuse by the developers. Standard 26, if you look for it, which allowed developers, practically all over the city is to be able to build with a density of housing and a couple of levels more than what urban development programs allow, in exchange for producing housing that does not exceed a certain amount, which seems to me to be 750 thousand pesos. So in theory everything is fine. So, for example, I give you building incentives if you build housing that goes to this social group. What happened in reality, that there is so much demand for unsatisfied housing that the developers realized that they could sell that very expensive house, and well above 750 thousand pesos, almost double. What were the tricks? The developer made the first sale to another company of the same group, and then this one sold it at a higher price. It is legally very complicated to avoid that. And here we are very good at giving you the exit. And the other possibility that also became a lot was to say, to see, I to you I sell a department in 750 thousand pesos, and also I sell you a package of finishes for another 500 thousand pesos. Then the norm ended up almost always being abused, and ended up being used for average residential dwelling. Then in this case only can use the INVI, which is the housing institute. It is suspended for the private developer, but not for the government. Then I think that INVI has a virtuous scheme. The INVI what it does is it obtains well located land, it obtains it expropriating, or it obtains it buying it, or also it obtains it when this extinction of dominion, because they had lands used by criminal organizations, for example, the domain of that property is extinguished, and that property goes to the INVI. Invited by INVI, INVI builds social housing and sells it at a subsidized price. The city government subsidizes the value of the land.

AB: Are those are located in downtown areas? You have some examples.

LZ: Yes. For example there is in the *Santa Maria Ribera*, there is a project in the center colony, and there are other projects more distant, for example on *Calzada de Tlalpan*. But close to the subway. Then INVI buys land, subsidizes it, and builds living and sells it below its real market value to people not entitled to the INFONAVIT or FOVISSTE. So, it seems to me that it is a correct policy, but INVI only covers a very small percentage, perhaps 5% of what is required. You should check the data, but I think it generates 2 thousand houses a year. And that the total demand for all levels is 40 thousand then not enough. I believe that the city would have to see how to multiply that scheme even if it is subsidizing it.

AB: So considering the case of Mexico City, how the market works, the private sector can play a very important role. So what would be the incentives for the private sector to include the production of social housing in TOD?

LZ: First I would say that at the level of urban planning, the city still has many restrictions. Especially in terms of housing density. I do not know if you are familiar with how we give the land uses here, then there is something called "the third literal", it is housing 4 MB levels. This housing MB, is very clear, is four levels up leaving say 30% free area, and then what is called literal density tells you how many homes you can build depending on your size of land, then that is what calls the norm 11, it is very important that you take into account within your research. Because it is the one that is holding back much of what can be done. So let's do an exercise. Let's think about a lot. A safe case exists. I have a space of say 450 square meters. With a land use, 4 levels, 30% free area (i.e. that you can not occupy in ground floor). And then MB, which means a very low housing density. So what can I build here?. They are 450 square meters, which I can only occupy on the ground floor and upwards we can only move 70%, then it means that I can occupy or move 315 square meters, for 4 because I have 4 levels. Then I can build 1260 square meters. And that could be very good, but we have a problem, that we can only build a house for 150 square meters of land. So it means that here I can only build 3 houses. I reach the absurd that these 1260 square meters can only divide between 3, which are homes of 420 square meters, and is absurd. And then there are other densities, there is very low density (MB), low

Antonia Burchard-Levine

Master Candidate –Urban Management
Technische Universität Berlin

(B), high (A) and free (Z). When it is HIGH then these 1260 could divide them into 33, then they give me 33, so I can divide these 1260 into 33 so I get homes of 38 square meters that is on the limit of what can be done. So, there are many lots that have these MB restrictions, because they were originally put, at the time it was done because it was based on the feasibility of water that had each zone, and that remained frozen with time, not change, then there are areas that already have more water because the pipes were changed or that with eco-technologies less water may be required but this padlock is still the same. Standard 26 allows you to change that, allows you to go directly to the density Z. Bone standard 26 is equal to Z. Then your standard becomes minimum room areas (which I believe are 40 meters). Then you have to make the city, remove this lock. The challenge to remove this lock is that we have to review and update the urban planning delegational programs. At the moment we are about to finish our General Program of Urban Development, then the law tells us that in the general urban development plan, the great development policies are established. And part of how it develops is through areas of action. The law says "you have to determine which are Areas of Action with potential for development or recycling, or improvement, or heritage conservation, then there are those 4 categories, then there are 2 where we identify where there is more potential to build more housing. Firstly, the potential areas of development. We came to identify these areas based on 4 variables, one that has water according to the water system of the city of Mexico. Two that are near the public transport (800 meters). Three that have low risks of flood, of ecological faults, according to the plans and the maps of civil protection. And four, which in the last decades had lost population, to recover the original population. Those who were displaced or by changes in land use, then homes have been transformed into commerce or offices, or by aging process of the population, or because families have reduced. Then there are many delegations and colonies that may have lost a third of the population they have come to have at their peak. Then it sounds logical that we recover in these areas the original populations. So we are establishing the PGDU in the development with those variables. Well there are 122 colony of Mexico City that meet that criterion. Then there are another number of colonies that we are establishing with recycling potential, which means that it was predominantly non-residential areas that have lost their sample density over time. For example industrial zones that are no longer being industrial. The industries are coming out, the heavy industry that no longer suits you to be in the center of the city. And that are areas that have been transformed, for example we only think of these areas as *Nuevo Polanco*, *Granadas* these were areas of heavy industry, the industry left

and have been developing, but not in the best way. For example, it was lacking in time to say that a new road network had to be procured in those areas. Then there were huge lots that made sense that it was only a building before, but if they are now mixed they would have to have a road grid inside. The zoning changed to HM, bone mixed housing, but was not accompanied by additional equipment, additional public spaces, streets and public transportation. So we are anticipating that this does not happen to us with the areas that still have to be transformed. That is for example the *Vallejo* area in the north, or we will pass when the current airport is no longer airport and becomes something, that can not remain as a large block, you have to change it. It has to have internal roads. We must rethink that space. Then come the areas of improvement that is also linked to the theme of social housing. So this is a first step where we identify where it would be better to have social housing, popular, in a centric way, with water, accessible etc. that separates the city, After that it is necessary also to transform the delegate programs to be reviewed after General, can change these rules so restrictive. To say if in these hills we have water and public transport, and it is close to the job then we can not have MB density, we have to change it to au at high density or Z.

AB: And what are the challenges of changing densities?

LM: It's a very difficult process because people who are already there are opposed. There we have the paradox that the one already installed, the one who already lives there, perceives the arrival of the new ones as something that demerits their quality of life and opposes. "I do not want more buildings or more houses in my colony". They think that if more people come to my colony I will have less water, more congestion,

AB: Are you afraid it will get more expensive?

LZ: The topic of the most expensive do not have it registered because they already live there. Remember that this is a owners city. There are more tenants in the center but the average owner to tenants is 70/30. So people are still opposed to the arrival of new people, not because of housing costs for rent, but to have to share the space with more people. Then the one who is already opposed, and often opposes with great force. The one that is not, the one that is being excluded, is not organized, so there are other cities where the excluded, those who have to

leave the periphery are more organized and demand a place in the city. I do not believe that in Mexico there is still that process. There are some movements like the Popular Urban Movement etc. That demand it but are also the groups that if attended with the INVI. But every young man who needs to buy a house of 500 or 700 thousand pesos and that now has no way to exercise that right to the interior of the city is going up periferias is organized. They do not have a voice then they leave. And the organized neighbor who no longer wants more developments. That ends up being opposed. Then we need to be able to reach a balance. Even in terms of height density etc. That allows the one who has no place, has it. And that he who is already tolerating and understands that there are other interests beyond his own, and that there are needs beyond his own.

AB: So what would be the social processes necessary to reach this balance of interests in needs?

LZ: I would say that a stronger participatory planning exercise, note that this PGDU has been developing under what is called the Council for Sustainable Urban Development (CONDUSE) that has allowed us to dialogue with more neighbors, give them a Voice and sit down to understand why they do not want more people in their colonies, but also explain why if it has to reach more people. The fact of saying, "If you oppose that more people arrive, do not believe that with that you have already saved, because if those people do not settle here, everyone affects us, every day will come from further away, will contaminate But, anyway, it's going to come because the jobs are here." For example, in the subject of water, we have to put it here, because if we put it further, it comes out more expensive and complicated in infrastructure. If we continue to expose the city, we will have to put more pipes and give them maintenance. I think everyone is willing to understand if we explain. There will probably be times when we can not agree, then we will have to act as an authority.

AB: And that is possible? Do you come and impose projects like that?

LZ: Here from the secretary, it is possible to raise and in the legislative assembly have to approve. That is to say, if we arrived at the absurdity that people, who are not in that plan, if people oppose a house in the whole of Mexico City, we have a way of telling them if we have to do more housing. Because the general interest, it has to be above the particular interest. I do

Antonia Burchard-Levine

Master Candidate –Urban Management
Technische Universität Berlin

not think we have come to that. I think people are willing to understand when we explain why, which is for Mexico City and perhaps for their children. So what I think is that you have to open more spaces for dialogue. And CONDUSE is a good tool, and that same tool, which in the end is a tool for dialogue and citizen participation, we have been using it for other topics as well. And now, for example, that we are starting to implement partial plans, we are using the tools of citizen participation. I believe that the neighbors are open to negotiate, provided they have the information, and also so as not to reach the other end that is hyper-densely. That is not about that either. It is not necessary, nor do we intend to generate towers of 20 housing levels, but if not what we would have to reach, is that in many areas could have an average height of four or five levels with reasonable housing densities. There are many issues as well, which is difficult to detect, and we would have to talk to developers, is that there are many plots that do not develop because there is much lack of legal certainty of soil, or typical inheritance problems. So the issue of testamentary succession has not been solved, because in addition it slopes. When you receive an inheritance you have to pay taxes the moment you make the writing change.

AB: Are there public policies to deal with that?

LZ: Not that. I think it is one of the great outstanding subjects that this city has. This city has to generate new instruments that can solve that quickly. Or intervene. If there is a property 20 years ago that is with a subject of lack of resolution, probably what other countries do is take that property develop it with the profits of that, they pay the owner what corresponds. So we do not have any of those tools and I think if we have to develop them, at the legal level. We need legal instruments that allow us to be able to identify the underutilized land that has legal problems and to be able to quickly incorporate them into urban development.

AB: So there is a need to remove the bureaucratic and administrative barriers to achieve a more efficient urban development?

LZ: Expropriation exists, but it is delayed and it is also aggressive. Then he is increasingly afraid of expropriation. We need intermediate measures between buying and expropriation. There are also housing initiatives that we are working with the legislature to encourage the construction of social housing, housing and housing for the beneficiaries of INFONAVIT also, in certain areas that

Antonia Burchard-Levine

Master Candidate –Urban Management
Technische Universität Berlin

we identify. What would be these areas with development potential, and be able to remove this lock of density. We still do not know until what density but we know that we do not want it too low. We are also analyzing the possibility. We are also seeing the possibility of removing the parking requirements. Because it is absurd, and we have been working hard with the ITDP, that the same regulations require the construction of parking boxes and with that increase the price of housing and congestion when what we want is more affordable housing and less congestion. Then we are generating ourselves with a past vision of a negative effect. It is an old institutional normative incongruity.

AB: How difficult is it to remove or circumvent the parking requirements policy? If I want to develop a project without parking drawers, can I do it?

LZ: At this moment you can not do it, what we would like to start is easy, because we only have to reform the standard of the architectural project that includes parking standards. So simply and simply, if we change right now what in the norm is set at minimum and we put it maximum. That would solve that. If now I ask for a minimum, and I reform the law and ask for a maximum, you can leave 0. And then opens a gigantic universe of possibility. And lower the price of housing. Here the ground is so scarce that no one is thinking where to park. All are parking inside the buildings, which means that they are building yards. And that also complicates the architectural project. There are lots of small and medium lots that there is no way to solve the parking lot then it makes the project unfeasible. And it seems to me, I have listened to the PRI deputies as well as the PAN in the assembly, the same position. They agree. It is an easy thing to change, that hopefully we receive a lot of pressure to do it. And who are going to oppose? As incredibly many neighbors are going to oppose that, because they believe that the street will become parking. At the pace we are going to, we are going to turn this city into a permanent parking lot if we keep buying more and more cars. You have to put restrictions on cars. And one of those restrictions is to limit the parking number to be built. And at the same time is to improve transportation. Many say that first you have to fix the public transport, but no, it has to be at the same time, because if we expect to have a public transport with the quality of Japanese transport, and then we remove, it does not work. You have to do it already. What I want is that the one who today needs to buy a house, that today he buys it in the city of Mexico. Because there is enough, adequate, and easy to offer, not to think that "today I buy it in the

Antonia Burchard-Levine

Master Candidate –Urban Management
Technische Universität Berlin

State of Mexico and then we see" we do not have to make immediate and parallel decisions. The effects are long term. A home that is already built in the State of Mexico, is already a problem and will be a problem for many years. So what are we doing? One is the PDGU that identifies areas of potential for development and recycling where it is possible to densify and build more housing, with fewer parking spaces, a reform of the regulations, and also incentives for the construction of housing accessible to the private sector. It is necessary to give administrative facilities to the private sector to build in certain territories, with certain characteristics and even to review the possibility of reducing the costs associated with urban development. For example, to achieve a merger of two estates, is something that costs a lot. Because you have to pay taxes for the operation. It is bureaucracy and taxes. What to the city what is convenient, is that in two buildings that were home, develop two small buildings, to the city what is convenient is that you join them and do something larger, with better architectural project. But this merger costs a lot, and for example we would have to eliminate this cost by merger. These are additional barriers and costs to urban development that must be eliminated.

AB: So if I can make a quick summary of what you are telling me. It is that the first, we must change public policies to encourage development that affordable housing in central areas, second, is zoning, third is to remove these administrative barriers and costs to development, fourth is to encourage the private sector, and finally to encourage Social processes in which neighbours can defend their rights to create a more inclusive city.

LZ: Yes, but we can not only talk about those who already have a place in the city, but those who need a place in the city. And I would add, housing of social interest and even the popular housing, it will not be possible to happen in the city so we do not subsidize it. Because the city is very expensive and that goes against the forces of the market. So we need to increase the subsidies for that type of housing. And for that I see two possible sources, One is the recovery of capital gains, if as a city I recover the capital gains from land use, by zoning, by the same privileged location. At this moment the capital gains generated are left by the owner. But most cities recover that surplus value. If we recovered those gains, which would be a lot of money, we could subsidize housing. And second possible source, is a need to be able to align federal subsidies in the best way. CONAVI, which subsidizes housing for those who have less, does not subsidize any housing beyond, it seems to me, 300 thousand pesos. The subsidy becomes very

Antonia Burchard-Levine

Master Candidate –Urban Management
Technische Universität Berlin

important. CONAVI can subsidize up to 70 thousand pesos which is a considerable percentage. But since all housing in the interior of the city exceeds 300 thousand pesos, no dwelling that is built inside the city can access that by subsidy of CONAVI. So is a perverse incentive for a family that does not reach to buy within the city of Mexico, but in the state of Mexico is susceptible of the same subsidy. What we need is for CONAVI to remove those locks. Although they are 70 thousand pesos, they could subsidize a central housing of more expensive cost. Something is good, but you should not take that subsidy away. But Mexico City is more expensive, CONAVI imposes these standards for all the cities of the country, so CONAVI would have to adjust this for the more expensive cities like Mexico City. Because it does not make sense. A cap of 350 thousand pesos is suitable for *Merida or Tijuana*, but it is another reality in Mexico City. If CONAVI does not recognize that, you end up subsidizing housing in the State of Mexico that is counterproductive. Then you have to increase the subsidy. If we also reduce the drawer of parking, again lowers the price of housing. If we reduce the costs associated with urban development, it again lowers the price of housing. And if we increase the supply of developable land, maybe it can also lower the price of the soil we can offer a better and may offer housing. So I think that this problem of social housing, is not solved in a single way, if not a sum of measures.

AB: And the last question is that there is a government integration of housing and transportation projects? For example between SEDUVI and SEMOVI?

LZ: The truth is that I do not see a great integration. [...] It is difficult to foresee and plan with this lack of information and integration. There is integration in certain things, but not enough. And it is necessary to have more integration. There is in the Draft Constitution that the Head of Government sent to the Constituent Assembly something that seems to solve the problem, which is the creation of a Planning Institute for the City that would do all the planning, not only of urban development but also to plan urban development but also mobility, environmental policies but even water infrastructure. With the creation of this institute already would congregate. And that comes out in the draft constitution. The draft constitution that the Head of Government delivered to the Constituent Assembly, in his chapter of development sustained, there has that proposal. I think that would be the good way for that. It's a pity that I tell you, but these institutional reticences that do not share the information, is nonsense. They are barriers,

Antonia Burchard-Levine
Master Candidate –Urban Management
Technische Universität Berlin

and I can not explain it. For example to SEMOVI what suits them, or the *Metrobus*, is to have more clients for its public transport system. So it is in their interest for SEDUVI to densify those areas where future *Metrobus* lines run around their corridors. But there is a lack of coordination. And it is an obstacle.

[End of interview]

12.2.4 Edgar Aviles Gomes

Spokesperson of the Neighbourhood Association for the defense of the Roma-Condessa-Hipodromo

November 12, 2016/10:00-11:30 (Condessa)

Edgar Aviles: Who are we? We as a group are an association, but we have no legal registration. We chose this name to differentiate ourselves from other groups. Our main goal was to fight against parking meters in *Colonia*, and in the process of this struggle, we had members of the citizen representation body join us. Several citizen committees were represented. We broke off from them, and later came together as a group. From there we began to make fight things we disagreed with. I am one of the main ITDP critics amongst the neighbours. I do not agree with the concept of a closed city.

Antonia Burchard: What do you mean by a closed city?

EA: It seems to me that the concept of a closed city has been managed and is not application to Mexico City, or a country like Mexico. A closed city is a city where people live in the same place where they work, and this cannot work in Mexico, because the sources of employment are located in different areas from where people live. The places where jobs are located are too expensive. One of the greatest problems that exists in Mexico is inequality. Therefore, the concept of the closed city, would only result in a segregated city. As an example, we have people who come to work in these areas, but they cannot afford to pay the rent here, as it is more than what they earn. So in that sense I have been very critical of this concept. I have discussed it at lengths with others. ITDP produces reports that are aimed at governments and not citizens and are not willing to discuss with us. The main problem with citizen consultations is that you have to summarize the issues you have in a single word. And the planners only take them into account if they fit or justify their projects. First, they wanted to reduce the number of driving

Antonia Burchard-Levine
Master Candidate –Urban Management
Technische Universität Berlin

lanes, in *Alvaro Obregon*, and turn them into pedestrian paths. We were invited and participated in the dynamic to discuss this. We discussed that no local residents are seen on the streets because of the use of land. However, they did not take our opinion into account, I did not see it in the discussion summary.

AB: So what do you need as a neighbourhood association to be able to dialogue with the authorities, to discuss matter of importance?

EA: We as a group are still working, we have complaints against land use changes, and so we protest. We have had other struggles. Until last year, talking to some neighbours, we heard the term *Urban Moratoria* for the first time, and it is fitting because we no longer want buildings or changes in land uses. During that time, they installed parking meters in our *Colonia* and managed to do a little coordination. The idea was to give shape to the Urban Moratorium we had discussed.

AB: Could you explain to me a little bit about the Urban Moratoria?

EA: The *Urban Moratorium* is, there are several versions, but in our version it was about asking a suspension of changes in land use, construction permits, demolition permits, opening of commercial establishments, etc.

[...]

EA: At CONDUSE we did not want to participate because we found to have too much of a top-down approach. They did not guarantee that they would take our proposals into account. And now the people we know who have participated in it are already complaining ... We request the closure of all illegal establishments and we ask the delegations to jointly prepare the plans. They told us no but at least they helped us position the issue.

[...]

AB: Have you heard of the concept or term gentrification?

Antonia Burchard-Levine
Master Candidate –Urban Management
Technische Universität Berlin

EA: Yes, we learned about it from an international seminar taught by Rene Coulomb. In that seminar, we tried to get Coulomb to advise us on a partial development plan. He sent us someone with whom he worked with and she helps us. From there we began to investigate the subject of gentrification.

[...]

AB: I understand that in *Ccoloniascolonias* like in *Roma* and *Condesa* there have been strong processes of gentrification. In your opinion, what are the processes that lead to gentrification? How can the effects of gentrifications be mitigated in terms of limiting displacements of local neighbours?

EA: Since 3 years, the *Colonia* has received many more businesses; and the mix of land uses is impressive. Around here there are more and more foreigners, young people, there are less and less old, there is more and more building, and less and less housing. Of course this implies changes in the culture of the colony. For example, there are almost no more *tlapalerías*, which used to be very common around here. Now there are gourmet cafes, not the same cafes as before. One thing we have tried to do is to connect with academics, because we have the problem that in the city they do what they want, but we do not know what they do. Therefore we want to cooperate with them. We do, however, have some seminars with Rene Coulomb and now we are in a participatory research project.

AB: And what do they investigate?

EA: The idea is to map the area, what there is, how people perceive it and what people want, and then generate a proposal. This will conclude in October. The idea is to generate a development proposal for our area. A project with the participation of around 15 of us, some masters students as well as some academics. Regarding gentrification, for example, yesterday we went to the Pushkin Park, which used to be a park and is now a square. The thing is that they intervened and turned it into Plaza. And just yesterday we were talking about the types of interventions carried out by public space authorities. For example, with the pretext that people interact more, they took away 3000 square meters of green area. The idea was to make them

Antonia Burchard-Levine
Master Candidate –Urban Management
Technische Universität Berlin

more productive, but we stopped it. We argued that it is part of a process to arrange the city for tourism. They want the *Colonia* to be for tourists so the level of displacement has been very strong. And then it is a very interesting case because many new people arrive. It is fashionable; and so many people want to live here. In the last two years about 2 thousand people have arrived here. Young people arrive, with higher purchasing power.

AB: And do families also come with children?

EA: No. They do not come. It goes as follow: The *Colonia* has grown but there have also been many expulsions. It is impossible to know how many, it can not be measured. Also the uses of the parks have changed a lot.

AB: Since you live in the *Colonia*, have you heard or known people who have had to go because they can no longer pay their rent or because if they rent they decided to sell their homes?

EA: Yes.

AB: And why do these people move?

EA: They are two things. The first is that they are excluded by nightclubs. People with certain professions such as doctors have had to go because of the noise from nightclubs. The noise does not allow them to sleep and so they have to go. For example, near the *Mercado Roma* in *Queretaro* about 200 families have had to go. The second, is that the rent has increased, and people have to go. Another issue of expulsion or displacement is that the owners say that the contract has been terminated and that the families will have to leave. And that happens a lot in this area. They cannot continue to pay for it here. Before they lived in an old apartment, perhaps with some problems, but now with the new renovations they are unable to pay the rent. So that's a form of displacement.

AB: In your time in this *Colonia*, you have perhaps seen a correlation between new public investments, such as investment in public transport, for example new subway or *Metrobus*

Antonia Burchard-Levine
Master Candidate –Urban Management
Technische Universität Berlin

stations, and processes that increase the price of housing or result in gentrification or displacements. Do you think that there is a correlation?

EA: Not in this zone. Well maybe it's happening, but it's a very slow process and you may not be able to see it. The Pushkin park for example, which ended up being square. The remodelling of this park is happening this year so we still have not seen the effects, but it will probably have an effect on the real estate market around the area.

AB: There is always this tension between renovating a neighbourhood or place, and avoiding speculation or repercussions within real estate sector. If we are talking about transport-oriented development, for example, I am looking at strategies to ensure that TOD strategies are inclusive, in other words to ensure that affordable housing is included. How do you think this can be achieved?

EA: To be honest, when I hear about this I do not believe it. This year has been a very intense year, in terms of conflict with authorities. The authorities believe that we neighbors know nothing. There is this idea that the city has to generate wealth. I really do not believe any of that. It seems to me that the issue of the development of the city should not be to generate wealth, but rather generate welfare. In my opinion it is the Secretary of Economy that is generating the development of the city and not SEDUVI. Many negotiations are no longer made with SEDUVI, they are done with the Secretary of Economy [...] For me, the fundamental thing is to think that we have a city that expels its population, a very expensive city, a situation that 52% of the workers earn less three minimum wages, and 17 percent earn less than one minimum wage. So, if we want to think about wellbeing we have to think about this people as well.

AB: That is precisely what I am looking at. If it is necessary to revitalize and make improvements in the city, it is also important to benefit the middle and lower income groups that are the majority, in this case. It is important that the developments benefit these populations. If TOD is to be applied, they have to be directed towards these populations.

EA: To be honest, I insist that TOD, I have not read it, but I imagine where it goes, is not the solution. Because it seems to me that it is not intended for a society such as this one. It seems to

Antonia Burchard-Levine
Master Candidate –Urban Management
Technische Universität Berlin

me that it serves to guarantee areas of privilege, to improve the quality of life of the privileged, and displace others.

AB: Exactly, but how do we mitigate this? How do we make it so that these projects do not displace populations? So that the populations that are already there can stay and benefit from the developments, and make the city more inclusive.

EA: The thing is, I do not think that will do us any good. I do not think it can serve us. I do not know the other cases where it may have worked. But here the public transport is lousy. You have to think about women who have children, and they have to park and do not want public transportation. Regarding the parking meter issue, we talked to a lot of people. They tell me that we have to leave our comfort zones, but they do not think about those women. They do not understand. Get on the bus or subway 8 am in the subway and it is truly a dump. First you have to improve the public transport. It is necessary to redesign a public transport suitable for the inhabitants of the metropolitan area to connect people and the needs of the people. If we do not solve this, we cannot think of TOD.

AB: In conclusion, as a neighbourhood association you need to defend your interests. Considering the complexity of the urban issues and the number of actors involved, and how can you improve this communication between different actors?

EA: I insist that citizens have to be involved in the processes. There are no dialog spaces. There must be spaces for meeting and sharing ideas. And someone has to drive it.

AB: Can you describe your vision of an ideal space where you can dialogue and where you can have representation of the various groups or actors involved.

EA: For example I thought about doing it here in the *Colonia*, but not many people would come. There are also no spaces. This year I wanted to make 6 lectures on different topics, including gentrification, financing of developments, etc. It was a matter of inviting SEDUVI, but to participate, not as the authorities who arrive a moment and leave, and inviting the delegate, specialists as well as involving neighbours. And this could not be done. But it is necessary to

Antonia Burchard-Levine
Master Candidate –Urban Management
Technische Universität Berlin

make spaces of meetings, if not, there will not be many clashes between authorities, neighbours and the experts.

AB: So your priority would be to build this space for dialogue? And what happens to these tensions between experts and neighbours? If there is a space or a way in which experts or authorities explain the technical reasons for the plans they have made and why they are making an intervention, and explain the goals adequately, do you think it would improve communication?

EA: No, I do not think so, I insist it does not work. We as neighbours are the ones who have to live in the environment. You cannot come to me and say how they will change my environment if I am the one who lives here and knows better how the changes should be done. You have to generate projects that come from below. But that means changing how government and funding work. For example, the authority of the public space, we talked to Remes the director, talked about the issues [...] For example, If they reduce the lanes, we are the ones who end up living with the traffic. They can do something nice for those who visit, but then those who actually love there have to deal with it, and they do not think about us. In *Michoacan*, which crosses *Parque Mexico*, now that they have cleared a lane, there is now a huge traffic jam during peak hours. If it occurs to them, that these interventions are beautiful, that they really think of whether it is good and feasible [...] Then I see it on the side of citizen participation. We need to generate mechanisms of participation, and I think we are far from having these efficient mechanisms. We are far away for 2 reasons, the authorities tell us that we must do things fast, and we must solve everything quickly because they have their political agendas. But I think we have to think things through well, everything takes its time. It is necessary to endure things, to generate consensus, then of course there is always criticisms, and then you have to take these criticisms, come to an understanding think well how things would work well, and then generate plans. And it is slow but I think that would work in this way.

[End of Interview]

12.2.5 Manuel Suarez Lastra

Director of the Geography Department of the National Autonomous University (UNAM)

Research areas: Urban structure, transportation and land-use, and efficient urban systems

November 15, 2016/2:00-2:30 pm (UNAM Geography Faculty)

Antonia Burchard: In your opinion, do you think that in Mexico City the proximity to the public transport stations is valued, the metro stations for example? How do you think that investments in public transport infrastructure affect the value of the land? Do you think TOD projects can lead to an increase in the price of land and housing?

Manuel Suarez: Okay first there are two things. Transport generates a positive externality, in the sense that everyone wants to be close to transportation, that is an obvious fact; it's a basic urban theory. You might not want the truck to pass in front of your window, but it is not because of the truck itself but because of the noise. You might not want to live outside the subway station, but not because of the station itself, but maybe for the negative effects it may entail. So it's not that you do not want to live near the transport, you do not want to live near the street vendors. But they are two different things, and that has to be kept in mind. Transportation does not generate informal settlement; the problem is not having a policy that prevents those forms of settlement being generated. This is the fault of a lack of implementation of public policies, effective and uses of public space. So in that sense, any type of work has to be accompanied by public policies or the implementation of other policies that already exist. Street exists, because it is allowed. Nothing more. And all the informal commerce that uses public space is there because you allow it and because there are a series of mechanisms of corruption very well established, that allow that it reproduces itself. Then it is to say that, it can not be said that any type of transport is bad because it generates a series of externalities that if foreseen, and that are negative. Because transportation is a necessity.

AB: So you think that TOD, once you start implementing it in Mexico City, has the potential to lead to gentrification processes of low-income residents?

MS: That's the next point. I did a study that never published, where we saw what had been the effect of metro on the location of density, both jobs and housing. And what we saw is that, in the newest stations, it was generating new housing, a new population accumulation.

AB: What type of housing?

Antonia Burchard-Levine

Master Candidate –Urban Management
Technische Universität Berlin

MS: I'm not really sure. We did not look into income. But obviously, if you have a population increase you are increasing the price of the land, and then gentrification. Those go together with glue. Furthermore, the price of housing is almost entirely set by the private sector in Mexico City. In the older stations, this generated a decrease in population density, and increase in employment density. Which is also quite a common process. These are expected results. Now, these are not planned developments, they are developments that come naturally, by the real estate market and issue of the city's land markets, questions of locality and displacement of housing by economic uses, which is a completely natural. So what it means is that depending on the theory, the use determined the price, then the moment you have a new transportation that will increase the price of the land. And you cannot say that that is something that does not happen. As the use of land increases, a phenomenon of gentrification is generated, and it is very difficult to stop. Then you have to see how to deal with that problem, if you think it's a problem. You have two types of occupants, those who can be displaced; those who own their homes, and those who are not owners and rent their home. Those who own their home are taking a decision, because they see an opportunity and prefer to sell it at a better price. If it is not, that's another problem. Meaning that it there may be a pressure problem, but in general they are making a decision. Now those who rent, that's where a problem can develop. Well in the case of those who are owners, there is the possibility that the price of land and the cadastral price rises, and you may have to pay for a building, which you cannot afford then you are obliged to pay. But it does in terms of housing, in this regard displacement it is definitely feasible. But also, what has to remain clear, is that housing is rented privately. Then you cannot have public policies to avoid that.

AB: But can there be instruments and incentives?

MS: Yes of course there can be, and there may be mixed income housing and public housing in areas of improvement

AB: And what would be those incentives to prevent this process of displacement that in the end is counterproductive to urban development?

Antonia Burchard-Levine
Master Candidate –Urban Management
Technische Universität Berlin

MS: What I believe is that if there is to be a public housing policy, first of all, there must be subsidy to low-income housing, which must be focused and selective programs, and exclusively dedicated to people who already live there; so that they can stay. Well not exclusively, but mainly to the people who already live there. If I think there should be mixed housing projects, I think they are very important for the city, but it is very difficult. Although it is a social stigma, it is also a stigma in the United States, but in places like Chicago they have worked very well with public policies. I think for you to achieve that, you have to densify around the mass transit station. The problem with that is that mass transit is already saturated. Okay, I'll show you [draws]

You have the center of the city, you have lines 2, 3 and 1, and 8 and that is the center of the city. All these lines pass through the center of the city. These lines operate at 130% capacity. Then you have the rest of the lines that are 6, 12, 5, and others. They do not necessarily pass through the city center, and operate at 70% capacity or less. And that's because, as the network is designed, (not like in London where almost all the lines pass through the center of the city, except some) here they thought the city like a grid, but that is not true, the city is quite monocentric. So the problem is that this would only work if the metro had more capacity, it would be better if there were more lines that would reach the center, if you had a city where people and jobs would be distributed differently. In Mexico City this does not work this way. And they are underused because you do not connect to the city center. So for this to work, you would have to double the capabilities of the lines going downtown. You could put a parallel line, lines that duplicate the high capacity lines.

AB: So how do these subway lines influence the land?

MS: This is increasing, as you get closer to the center.

AB: So one can say that there is a correlation between transport centralities and land use.

[End of interview]

12.2.6 Jody Pollock

Urban Development Consultant; Coordinator for publication “México Compacto: Las Condiciones para la Densificación Inteligente en México”

November 16, 2016; 5:00-6:00 pm (Polanco)

Jody Pollock: Essentially, INFONAVIT began to realize that their model of working was disastrous, largely they begin realizing this when they notice much of their housing was being abandoned. There is one study done about that a couple of years back, I think it was INEGI, and they came up with a ridiculously large number, which INFONAVIT has tried to argue against, that its not that many. However, its is extremely difficult to measure, its hard to tell if home is actually abandoned. Sometimes people are just not home, or only use it on the weekend etc. So INFONAVIT realized that their housing financing model was creating abandonment and many other problems, including lack of access to services. Of course, if you do not place restrictions on where people should build, people will of course build where land is cheap and far removed from city centers. They will likely use reserve land. INFONAVIT does not have mixed-use housing in their subsidies. It is something they have been trying to change for years, without being fruitful in their efforts.

Antonia Burchard: Why have they not been able to change this?

JP: Mexico traditionally has had very heavy bend towards single use zoning. For example, here is our commerce zoning on *Reforma*, but they don't necessarily have housing, other than perhaps high end or luxury housing. So low-income housing, there is no such thing as government provided housing, unlike in the US where you have public housing, that the government builds and manages. Here in Mexico it is finances, and private developers run low-income housing. So there was an assumption through the early 2000s, late 90s, where INFONAVIT stopped building houses, and thought that private market would resolve this problem of low-income housing as long as they continued to subsidize it, and give it enough incentives. Unfortunately what ended up happening, is that you have low-income housing that is far away from everything. So maybe it resolved the issue to some extent, because it did allow a lot of people to generate housing credits, but they probably have to commute three hours to get to work. So the single use zoning is very entrenched problem in Mexico. In terms of the legal framework, the senate just approved a new general law on urban development, but the one that was in formerly in place, or is actually still in place, is really old. The last time it was reformed it was in the 90s. It is no relevant anymore. Cities no longer look the way they did in the 90s. In terms of zoning, the constitution in article 115 gives the attribution for municipalities

to decide zoning, to decide plans, to decide license and permits. The Federation sets a national law with the urban framework, and then municipalities have the attribute to implement it. The national laws are just frameworks though, like saying “we hope you will consider the environment, and we hope you will consider public transport etc.” and at the state level, state urban development laws can be more specific, but they are still not specific enough. And decentralization is how it should be, cities know better what they need and what their conditions are. The problem is that there are many problems at the municipal level. One of those problems is lack of capacity. Working in a municipal government is not prestigious; it is usually a political stepping-stone. Also, in Mexico, urban planning was not yet recognized as a field until very recently. Many times, they do not have the broad scope of skills needed to know about a range of issues such as environment, or transportation, health, economic development etc. At the Municipal level, the capacity is rough, there is no money, They depend almost entirely on federal transfer. Even if they have a priority to build bicycle lanes for example, they do not have the money for it. They have the money to build other infrastructure. There is also very little capacity to generate finances. Property taxes are the minimum baseline and even those are barely collected. So issues both in terms of human and financial resources. And there is also a problem in terms of time. People usually stay for terms of three years, so there is no incentive or capacity to make long term plans. So you start from zero every three years. Hopefully that will change. There is an amendment that might change that. At least to create space for longer-term priorities. The other thing that happens is that in terms of zoning and public participation. Public participation is a farce, its pretty much just consultation.

AB: What about CONDUSE?

JP: CONDUSE is much better and I would say a step forward in Mexico City. Mexico City is an anomaly. It has more power and capacity, relative to other Mexican cities.

AB: Okay great, so I am only working on Mexico City.

JD: So we can change the dialogue a little. CONDUSE is a really interesting example, not sure what will come of it because it has just started. I have been to a few of their meetings. Mexico City realized through a number of pretty big mistakes that they needed to find better participation mechanisms.

[...]

JP: Planning in Mexico City, one of the bring problem with zoning is the legal problems people get into. For example, in *Centro Histórico*, one of their problems is that they want more housing, they want people to live their ,they have also the services: education, commerce, culture etc. but we don't have people living here. Because of legal problems. Some of it is zoning, as well as its status as a protected area. The problem is those old buildings, nobody knows who they belong to. They have been passed on from generation to generation. So I think, rental laws in Mexico would be very interesting to look at. Renting, as a whole, has not been promoted. It is not seen as something good as most people see owning as something to aspire to. People think that if they do not own a house, they have no *patrimony*, no assets, which is something that the 2008 crisis showed that maybe owning is not the solution, and maybe renting needs to be promoted. Mexico's rental economy is almost non-existent; INFONAVIT has very little support for renting. They have played around with the idea of promoting rental, but it has yet to come to fruition. They focus more on the basis of credit for owning.

[...]

JP: The other problem is that the legal protection for renters tends to put landlords at a disadvantage. There is a lot of distrust between landlords and renters. Which is why there is this system of *fiador* (like a guarantor, meaning that if you want to rent, you need a homeowner to guarantee you), and months of deposits. We conducted a survey in certain *delegaciones* on peoples living preferences. [...]

AB: What about gentrification and displacements?

JP: My hypothesis would be that in the US land values in the US are adjusted frequently, and cadastral maps are frequently updates as well, as well as property taxes. It's more dynamic, so when gentrification happens, it would be felt rather quickly. Whereas here, land values are never adjusted, and property taxes are not collected. So you will start seeing more the private sector adjusting. I think, for example, La Condesa is a good example of gentrification in Mexico

Antonia Burchard-Levine
Master Candidate –Urban Management
Technische Universität Berlin

City. You have a bubble in which rents skyrocket within a couple of years, entirely driven by the private sector. In regards to the public sector, then they start to invest more in services, because there is more of a political force of wealthier people.

AB: What about the other way around, when first come public investments, such as transit, and then comes gentrification?

JP: I think you have examples here in Mexico City that are very well served by public transit that are not necessarily expensive to live.

[...]

JP: Another very important aspect to look at is the sectorization of public policy in Mexico City. You have the federal level, you have SEDATU, which has little power and they will cut half of its budget. You have INFONAVIT, which has a significant amount of power and money, largely because they generate their own finance, and they are 80 percent of the housing market in Mexico, which is truly rare for an institution to have so much power over the housing market and so they inadvertently drive housing policy. Then you have SEMARNAT, which is completely separated, and no one talks to each other. And then even at the City level, at least in Mexico City things work relatively well, you have SEDUVI, and within SEDUVI their own little factions. And then you have all the Municipalities that make up el Valle de Mexico. And there is zero coordination. BUT it is beneficial to Estado de Mexico for people to move there, so they will not make policy changes that will encourage people to live in more central areas within Mexico City because then they lose tax payers, so there is no incentive to coordinate. On a political level, Estado de Mexico is one of the strongest PRI states in Mexico, and the more people living there the better. In terms of TOD, this complicates things.

[...]

AB: What about the private sector? What do you think would be the incentive for the private sector to integrate affordable housing and transit efforts?

Antonia Burchard-Levine

Master Candidate –Urban Management
Technische Universität Berlin

JP: So here you should look at the *Normas* (whole page in the study). So a big issue in terms of policy, is that when you own land you can almost do whatever you want with it. So the argument would be that there needs to be more control on developments. Which could include financial instruments to build within the city center, build on underutilized land. For example you can look at what they do in Brazil when land is underutilized taxes increase. So there is an incentive to make use of the land.

AB:

JP: Mexico City, like other cities in Mexico, has done a poor job in using financial instruments to both collect local finance and to induce the private sector to do certain things. Another issue is that there is a ton of corruption which further prevents these norms from being implemented, they are not controlled. Many regulations are well intentioned and well designed, but then there are implementation and enforcement problems, which creates a backlash. And another issue is really strong resistance from neighbors. People's perceptions end up blocking things and because there aren't very strong mechanisms for public participation, there is a lack of voices in government, so what happens is that those neighborhood groups that are really well organized, usually wealthier, have more political power. They prevent re-zoning, they don't want social housing and so on, and those voices are much much stronger than the voice of the people who need it. And the other thing is that the social movements in Mexico City are actually pretty quiet. They do not have good coordination with the government, so there is no push and pull there, and they are not well organized. So the issue is that big developers see money in social housing projects, when the land is cheap, which is far away. And the legal problems are not a minor issue, so they are not willing to go through all these legal battles to create housing that will not make them any money.

The private sector therefore has no incentive... and much less to coordinate with public transport. Another huge problem, is parking. If you have to a ridiculous amount of parking, and what you end up with is buildings that are just parking, and these buildings can be put to much better use. And a huge problem is a lack of communication, from the government to citizens to explain what is happening, and as the private sector can take advantage of that. So this creates a huge range of problems. So there needs to be improvement in terms of the channels of communications, and both ways.

AB: Doyou think CONDUSE is a step forward?

JP: I think it's a started. But you have to keep in mind that participation also has its challenges, it takes long, its expensive, its unreliable. The city is huge, so it is difficult to get people together. And the interesting thing about Mexico City is that you have people of different income living together, yet divided though neighbourhood segregation, For example, *Condessa* and *Escandon*, *Roma* and *Doctores*. And for example this may be hard to see in other parts of the world. And in my opinion much of this has to do with the fact that the private sector is driving this. In *Doctores*, people have not yet been able to sell their homes at a higher price. The other thing that happens, apart from the government failing to communicate, while keep in mind the Mexico City has a much more social conscious than other parts of Mexico, what is really missing is the private sector. I have been to a number of events, and you never have any private sector representatives. And nobody thinks about them, when actually they should be one of the main players...and this is truly a problems and the reason why the housing sector is the way it is, because the private sector pretty much drives it and yet they do not participate in any of the processes. And so they will have no incentive to construct social housing in city centers, because it is just not profitable. And in addition the lots in Mexico City, are much smaller so it adds a further challenge, if you want to build anything you have to build vertically and there are a fair amount of regulations in that. But also it goes back to a cultural perspective, some people do want to have their own house, with their own space and backyard. There have also been some bad experiences. In some vertical social housing projects, the elevators were broken for over 20 years...So people do not wan to walk up 20 floors.

JP: In a study we did for COFESE, we looked at how state laws in urban development affect economic competition. So do they incentivize, or restrict competition. We found that; the number of parking spaces is a problem, etc. everything time you build you have to reserve a certain amount of space and give it back to the state government for services, green spaces, etc. the issue is that those fees go back to the state...and then it is lost. They could choose to reinvest that money in neighborhoods, but it does not happen. There is no monitoring as to what happens to that money

[...]

AB: What about public value-capture?

JP: So Brazil and Colombia are usually the good to examples in Latin America for national urban policies, at least in paper, and these provide a list of tools for municipal governments they can use for financing (public value capture, betterment capture etc.) Mexico does not have that. Brazil, Colombia and now Ecuador have this, but Mexico does not. Mexico has these ‘areas de actuación’ but nobody uses them.

[...]

JP: The story of municipal finance in Mexico is extremely complex. There is a lot of corruption and when you start digging into it, it gets complicated. Public value capture can be complex, because it is politically difficult to pass something that is going to make people pay. Also municipal finance needs to get more attention.

AB: What would you say are the many obstacles to producing low-income housing in the city?

JP: One, corruption, two, lack of financing, three if you want to connect it to transit you need to have some sort of planning and coordination. And for your work, I urge you not to forget about politic.

[End of interview]

12.2.7 Alejandro Morales

Representative of Real Estate Developer Grupo PRODI

November 17, 2016; 5:00-7:00 pm (Colonia Roma)

Alejandro Morales: I start by telling you who I am [...] then Mariana joined SEDATU in the Adventure to create sustainable urban mobility strategy, in one of many efforts that we had at that time was to promote the streets complete etc. And one day we were approached by someone from CCAP and they tell us that they have the resources to do a Transportation

Antonia Burchard-Levine
Master Candidate –Urban Management
Technische Universität Berlin

Oriented Development (TOD) event that was in 2013. Then we made CCAP work together with ITDP, and there I took care of the subject of the TOD within the SEDATU. We then started publishing with TOD guidelines to promote within the political discourse. So

Antonia Burchard: So it wasn't until 2013 that the TOD enters the political discourse here in Mexico?

AM: Yes, it entered thanks to the efforts of ITDP into the National Development Program which included a TOD guideline within the theme of compact, dense city, mixed uses etc. So I was involved in the process from the federal government to sell this idea that very few knew about. Very few people understand what TOD means. It is actually a very broad concept. It can mean many things. And in addition, coordination is very problematic here. Onésimo has already said his favourite phrase in regards to TOD "there are many monkeys that have to be still to take the picture" and I think that phrase explains a bit the complexity of implementing TOD projects. There are public and private actors who have to coordinate to achieve things together, and there are also the citizens [...] At some point we needed to present this idea to private developers. And for them, it is "bring me the public transportation infrastructure, and I developed your suburb". So, basically our effort had a lot of work with local governments, in particular we worked with *Guadalajara*, *Aguascaliente* and Mexico City. In those three, funds were given to organize TOD workshops in those places. And in each of these cities, together with SEDATU, a strategy was developed that showed the analysis, and the areas of opportunity, incentives, etc. For example as you enter as government in perhaps centric areas that are well connected, but with a weak market, then for example as you begin to discuss with the government to encourage to develop a TOD strategy in those places, to construct vertical housing...

AB: So what was the reception of those ideas, and how did it enter the implementation level.

AM: The reception is always very good, it's a very politically attractive idea concept.

[...]

Antonia Burchard-Levine
Master Candidate –Urban Management
Technische Universität Berlin

AB: What are the biggest obstacles?

AM: The obstacles are one: the use of intra-urban land is very expensive. It is the main problem. Two: the parking requirements are too strict, so it only makes it profitable to build middle- or high-income housing or even luxury.

AB: Do you think that the proximity to the public transportation stations, is an advantage or disadvantage?

AM: What the real estate agents tell us is that for this sector (middle-income) they do not care because they have their cars, and they want to park it, and they do not appreciate what they could benefit from a TOD neighborhood.

AB: So that is just the paradox that interests me, and that I want to explore with this thesis. It is the fact that a TOD development can benefit more than anyone, the middle and low income segments, and it is precisely the market that TOD projects (at least in the form that exist here in Mexico City) do not attend. How do we overcome this? As we ensure that the TOD serves the populations that most need it. And I'm interested in talking to you, to know the perspective of the private sector, the developers.

AM: [...] an opportunity arose for me to work here at Prodi Group, and to work with a TOD approach. In that interest to promote it with the government, and see that it is not enough, and try to look for real estate and convince them and see that there are too many challenges, I have the opportunity to work in the private sector with Grupo Prodi, a developer which just intends to look for new business opportunities that generate value to the city with a clear vision that we believe in the TOD and we want to execute.

AB: And do you have a social focus or an interest in equity?

AM: Yes, then we as a group, CETRAMS did not buy the land, it's a 30-year concession. Therefore we have stood out in having, as a group, much experience in those processes of turning public land into something with public and private added value. Then the group feels comfortable

doing that. If for example, you say "I sell you a property next to *Tasquena*" we tell you that there are other companies that can buy private land to develop it for even private benefits. That's not what we do. We know the way of concessions. So we want to take advantage of that to generate a value to the city. So the first thing that we decide is that we are going to think about the sub-used public land, and which is the most sub-used public land for a TOD, well its the subway grounds. And what we have available in CDMX; *San Joaquin* has public land, the subway owns those lands. The scheme is that in the 60s the government expropriated the land, and transferred the property to the metro as a parastatal entity. The metro has control because of these lands depends its operation. Then *Tlalpan* has in the path of line 2 has 3 access portals, with lands of 300 square meters, which communicate with an access walkway or passenger platform. Because of the conditions of *Tlalpan* is an avenue with a lot of potential and value historically (which *Hernán Cortez* took to go to *Cuernavaca* at the time) then we said why not take advantage of it in exchange for a concession of these properties. Then we are committed to develop the station and make a housing property. We are at this moment with the fixed idea that we will want to demonstrate that the housing is attractive to develop. There is also an impressive complexity in the subject of land uses. Sometimes, as in the case of the Rosario CETRAM, housing could not be built. Then there could be two options, one is we say to the metro we help you generate income to overcome the operating deficit or, two, we can generate social housing in rent where you collect income. Then how to place that house. The subway can not get rid of their lots, because they are buildings where they depend their operation, because, in the case of *Tlalpan*, are points of entry. Then there is no way to buy the property, nor do we want, we do not care.

AB: So the Prodi Group is more dedicated to managing these projects than doing business? So how do you look for profitability?

AM: We do not want to be a conventional housing developer.

AB: So what would be the group's mission?

AM: I could define it as a very pragmatic vision in which we believe that we can and there are many business opportunities that generate social value, and we believe that we have enough

Antonia Burchard-Levine

Master Candidate –Urban Management
Technische Universität Berlin

experience to take advantage of those opportunities. Then we found a niche that was not being attended to. Meaning is not that we explicitly want to enter the TOD like traditional developers, because there is much competition there. We know how to get public land, handle the legal process to get the bid. That is our expertise; we have already done with 3 CETRAMS. Before that niches, the question of what type of housing, we ask the metro if they want to finance infrastructure or start a policy of social housing near the stations, versus the legal status of the metro station, we can not sell. You can only make a mechanism in which the subway provides the property, the trust; the investor develops the property, etc. So in this case if the metro wants to generate income, we sell or rent them at the most expensive price possible for the market. And one part goes to pay the metro, and another part that we invest. So this was our conceptual model. The last issue is that in both cases we want to rent ... but rent is not a decision in itself, it is a decision of legal constraints.

AB: But on the other hand, housing would also need more income. Would it be a solution to address the housing deficit for middle-income / low-income people in the city?

AM: Exactly, we have been quite challenged because the rent, or that brings the income to the individual and to the city. Because although the decision we have taken to promote housing income is because the moment we close project contracts, we can have a narrative, then the narrative to justify that we are giving this. Either to generate income for the metro or to generate social housing. And to be very sincere, we went through a lot of literature, and we found the concept of Community Land Trusts, because we want to go to the market with a product that we can not sell, due to legal restrictions, but we want to occupy 100% already whether at market price or otherwise. Also literature, the form of the Community Land Trusts, gave us a way of saying we are offering a product that has the best attributes for the individual for a property but benefits in not buying the land as property. Then in this brainstorming seek solutions, to get that product. Then we think about selling rights to use. Then all the pieces were to offer a Community Land Trust, even a Community Land Trust with the two senses. In case you sell a right to use 90 years, or whatever you want, depending on how many generations you want, if you sell it to social housing, you regulate the price. Then we were going to order that every time someone wanted to resell their right to use was sold at an affordable price.

Antonia Burchard-Levine
Master Candidate –Urban Management
Technische Universität Berlin

AB: And legally how would they achieve that?

AM: Well, in the contract for the right of use. In fact, it created a secondary market that you can regulate.

AB: But in legal terms, how do you do to have the right or ability to control that?

AM: So we had the concept, for the simple fact of wanting to get rid of your right of use, they would have to sell it to us first. That would be a mechanism. But we have not yet established it legally. But we already had the two ways; The social path (if the government decided that it wanted to do social housing in the long term) or a revenue path (where you, as developer, i.e. as trust and the subway, which put the land capture value added to investments in the environment) It is made of selling fiduciary uses suited us very well. The problem of placing a market, giving legal certainty to low-income families and allowing us both to maintain prices, to regulate them.

AM: Community Land Trusts had very high legal viability in Mexico City, and has already been done. The *Central Abastos*, the government provided the land to a trust, and tenants or an association of renters, each tenants were given a right to use trust for 100 years. They did not buy the warehouses, but they bought the right of use. It is like a title of property but rather a title of right of use. So in terms of uses, there are already antecedents, real estate has used this scheme, a private investment through a public property. So the subject is that we had the concept, but the details were missing. We also did an analysis on the possibility of acquiring a loan from a federal mortgage company, to get into the rental business.

AB: And I could have access to that analysis to understand the process a little:

AM: Of course, I can share the entire analysis we provided, only for one reason; We presented our proposal to the finance secretary a few months ago, and he loved it, so we went forward with the project. It was stalled for political issues beyond our control, but it later moved forward. We sat down with lawyers and investors to adjust what the mechanism would be, whether it was concessions or macro trust that would rent the real estate the whole bill. The

Antonia Burchard-Levine

Master Candidate –Urban Management
Technische Universität Berlin

project began to take off, we were seeing the details, and suddenly, with something very similar to ours in Cortez, another developer announced her was going to develop in Cortez on one of the properties we were contemplating ... and that it was a first Project of nine stations, of which we were contemplating. So that was the end. And so the proposal disappeared. It was an incredible effort that never materialized.

AB: So now the project did not happen. But the concept that was developed is very innovative in Mexico, and lead to you finding a niche in Mexico. And now what would be the next projects?

AM: We have this legal concept of social housing, or intra-urban housing identified. We have some satellite projects. But apart from the business, apart from what we wanted to achieve was to demonstrate a concept. A type of pilot project, in terms of very high risk, very low utility but was to check something, to change and think again the city model accompanied by the private sector. In Mexico you have 300 markets, 50 public parking lots, such number of abandoned properties. There is "an inventory that does not exist" of public land that the government should be thinking about how to capitalize the public land, to solve the problem of social housing in the city

AB: What is the percentage of public land in Mexico City? But I have been told that there is a high level of opacity. But is there an inventory? The government has it, and do you know where their lands are?

AM: I can tell you that in approaches that we have had with the real estate development people of the public real estate office or something like that, those who are in charge of the real estate property of Mexico City, have an idea of where are some buildings and buildings Public. They have them in Excel files with addresses that do not always coincide with reality.

AB: So who has this inventory?

AM: The management of real estate assets

AB: And why does this opacity exist?

[...]

AB: So from the perspective of the private sector, from the developers, which are the main legal administrative barriers, and the bigger challenges, of integrating social housing in urban centers where most of the infrastructure of high quality is located. How to integrate social housing into TOD projects?

AM: I think if we did not have the vision as a group to want to get the construction based on the TOD concept, the challenges would be the uncertainty that if those types of projects are worth it. Therefore, we since we are within a group that have been very successful, and are visionary in the sense that we want to innovate and present something new to the city. Then as a group, we have overcome that barrier, we are no longer afraid to invest in something new, something different.

AB: So when you want to develop these projects, they look for the space they propose the concept but then you come across legal, administrative or other types of barriers. How do you face these challenges?

AM: I believe that because of the institutional conditions that Mexico City has, the way that these types of challenges could be solved would be the political will. I know that sounds, very simplistic but it is fundamental. But when it comes to developing projects of this type in which so many interests have to be aligned, and to overcome so many barriers, that is exactly what builds an environment that favours corruption. Focusing again on the social issue, you mention it but I want to emphasize a lot, which is the issue of how to take advantage of the issue of public land, which is not being used, and could be used to generate a tax revenue that helps me build more Public transportation infrastructure, or I want it to generate social housing that, because of the cost barrier of the land, could not be built without any incentive.

AB: In terms of government support, for the *Tlalpan* project, for example, the government needs to address this social housing deficit. Did they support the project? Do you feel that the

Antonia Burchard-Levine
Master Candidate –Urban Management
Technische Universität Berlin

government is creating a favourable environment for companies to focus or have the incentive to develop social housing?

AM: I would say no, they understand the problem of the high cost of intra-urban land use. The main excuse is that federal entities that promote loans or subsidies to social housing, do not apply to Mexico City because the land is so expensive that it's not viable. With what they offer, you can not buy anything inside the center. Basically there is a social housing policy that does not exist.

AB: In conclusion, they are already realizing that the way in which they produce and finance social housing no longer works. They end up building dormitory cities or abandoned cities. So from what I understand, it is that the government already knows, and already has it within its goals that they have to change this, and find better locations for social housing. If you as the private sector arrive with this project you seek to find a solution to this, you meet your goals. Do you find support?

AM: yes it helps a lot that they are sensitized, have the discourse of intra-urban housing of those, mixed-uses, compact city, dense but nevertheless are not prepared to support. Specifically, they are not ready to materialize what it implies, because the conditions that are presented in Mexico City are very different from those of other cities, where INFONAVIT can be much more effective. I think Mexico City has a big problem. INFONAVIT, CONAVI, SEDATU, can be like the pivot of public policies. The instruments of subsidies, the purchase of land, and the rent are already transformed, but all this portfolio of incentives in Mexico City is irrelevant for the simple fact that the cost of the land is out of control.

AB: So basically, the solution would be to find mechanisms or instruments to unlink the price of housing and land. And you arrive and present a project that presents that, because there are no more links?

AM: The presentation of our project I believe was successful in the specific reaction it created. People liked it. But at no time did it impact public policy. And there is the problem. Something is

Antonia Burchard-Levine
Master Candidate –Urban Management
Technische Universität Berlin

proposed, and then there is no translation into public policy. By presenting these types of projects, we could detonate a public policy arena.

AB: Then they could start with pilot projects that can be climbed.

AM: And what I do notice is that nobody talks about this problem. Mancera has never been heard to say anything of this

AB: So what would be the way to start that conversation?

AM: I don't know, I imagine there are many forms, Onésimo is the one who is starting with this starting, another may be that there is a political crisis. A project pushed by civil society.

[End of interview]

12.2.8 Luri Moura

ITDP Brazil Urban Development

December 6, 2016; 11:00-12:00 (Skype call)

Luri Moura: In the last 6 or 7 years, social housing policy in Brazil was totally based on a federal program called Minha Casa Minha Vida (MCMV) [...] and this federal program, it's a huge program, and its strategy is totally based on providing new residential units for the poor. So in fact it was created after the economic crisis in 2008 as a measure to minimize the impacts of the global crisis in the Brazilian economy. On the one hand, it has been very successful in producing new residential units, but there is a tremendous lack of quality in the production of project, also in regards in the location of the project. It is really similar to INOFINAVIT in Mexico. In this sense, the sites provided for these residential units the program was not actually providing access to urban opportunities in the metropolitan regions of Brazil. So the program began to be very criticized because of these, not only the location but also the quality, the poor quality of the projects. And because of the size of the program, it had a huge impact on cities and metropolitan areas.

Antonia Burchard: Would you say that it resulted in urban sprawl or expansion?

IM: Exactly, it was reinforcing urban sprawl in metropolitan areas in Brazil, especially, for example, in Rio. So around 2013, we understood that it was really important to analyze and work on this issue. We began talking about TOD, more compact cities and metropolitan cities, and we understood that this issue needed to be addressed to reverse sprawl and expansion, but also to increase access and opportunities of lower income people, in order to achieve more social inclusion. So we started to work on this topic in 2013, with some research and some case studies in Brazil, which I sent you, the ITDP global team was coordinating this study with our team in Brazil. We started to think of creating a tool with a few parameters to situate the urban parameters of the project

AB: Can you tell me a bit more about this tool, and how you think it serves as a strategy to mitigate the problem you were describing, As a tool to achieve a more inclusive city and integrate more social housing in proximity to transit and urban services.

IM: Basically, it uses 3 main subjects: access to public transport, access to services, and also integration of project with the urban space. So these evaluate these aspects of the projects, and our idea is that if a project performs well on these three areas it probably has a good location and good integration in the city, it is likely to be located in an area that is already developed and not contribute to the issue of sprawl or expansion. The idea is that these projects be located in downtown areas or areas that concentrate jobs, services etc. Our idea in the beginning was to create these parameters to evaluate MCMV, so we conducted a few studies to contribute to planning strategies, such as the study in Rio, Sao Paulo, and because of these 2 we kind of created awareness on this topic in Brazil, and due to this we were invited by the Ministry of Cities, by the National Housing Secretariat to better locate the future MCMV programs.

AB: That is really interesting and quite an impressive result. Other than awareness on the issue what has been the reception of this tool? Have government entity's been receptive to it? Do you think that at some point in the future this tool will become a requirement to contrast housing units?

Antonia Burchard-Levine
Master Candidate –Urban Management
Technische Universität Berlin

IM: Actually, we are working on this right now. We launched the tool in 2014, and in 2015, we started to work with the ministry of cities to create parameters to be included in the MVMC programs.

[...]

IM: So the thing is, that after three years of working on this in 2016, we are able to influence the national policy. So the thing is, we are having a political crisis in Brazil, so the entire political discourse changed when Dilma was impeached [...] So the MCMV programs schedule changed [...] So we launched various publications on the topic. So at this moment we are monitoring MCMV projects with the Ministry of Cities. And we need to continue monitoring this process, because at this moment it is difficult to understand even how the program itself will continue over the next years. We keep doing our work, and we continue to advocate for inclusive TOD but this is something that is not simply our responsibility. I think we made achievements, but there is still much to do. We provided recommendations for the city government, but the idea is that these parameters be included in the specifications of the MCMV program. That they be included as a requirement for approval of the project by the Ministry of Cities and the *Caixa Economica*, which finances housing projects. There was national decree, and the ministry of housing published this tool in its website and communicated it to other mayors etc....so it was officially launched, and I think this is a very good start [...]

AB: In regards to this urban evaluation tool, it seems it has been more or less successful in promoting the idea of inclusive TOD or improved locations of social housing projects, and it would be important to replicate this in the future, in Mexico City for example...where the city has reached its limit in terms of growth. So can you tell me what your main challenges were in developing this tool and convincing the government to take it into account, and what recommendations would you give to replicate this elsewhere?

IM: I think because Mexico City has many similarities to cities in Brazil, or other cities located in Latin America, it would be realistic to say that the experience we have had in Brazil could be replicated in other Latin American Cities, for example Mexico City. I think that using our experience as a reference, I think it is completely possible to build parameters that fit to

Antonia Burchard-Levine
Master Candidate –Urban Management
Technische Universität Berlin

Mexican reality, and be used to evaluate the urban location of housing projects. I think it is really important to use the existing references, but ensure they are adapted. I think its important to use case studies to evaluate which kind of parameters would be suitable. And also if it's possible, it's important to partner with academia. In our experience, I think that is exactly what allowed us to be successful. We partnered with the Sao Paulo University with an agreement with an important City Laboratory.

AB: An important aspect I have been exploring in the case Mexico City is regarding the private sector. In your opinion, how do we get the private sector to produces transit oriented housing, or housing in good urban settings. The main challenge lies in the fact that land in good locations is often too expensive, and it therefore building social housing on these expensive lands is simply not lucrative, which is why social housing ends up in the periphery and rather isolated. So can you tell me about your experience in dealing with the private sector in producing low-income housing in better urban settings in Brazil, using this tool or otherwise?

IU: I think the situation in Brazil is actually quite similar. I think it's very important to **diversify** the strategy of providing social housing. Out national policy was completely based on providing new residential units and we have a lot of problems because of this. For example in big cities and metropolitan areas, we have [...] the strategy to provide affordable housing is used [...] For example a strategy that could be used to diversify the strategy to provide social housing in big cities, and give good quality of life to lower income residents and not displace them towards the peripheral area, is to improve settlements already in urban settings. We are also starting to insert and provide social housing at the city level. This is being implemented at the legislative level. And the best example so far is Sao Paulo's master plan. The city needs urban policies that provide **incentives to developers to serve social housing needs.**

AB: And what kinds of incentives are these? Are they financial or are they density bonuses?

IM: For example, you can use more development potential such as FAR without being charged if you provide social housing [...] Developers can use constructive potential around transport corridors or TOD without paying if they include social housing units.

Antonia Burchard-Levine
Master Candidate –Urban Management
Technische Universität Berlin

AB: There have been similar incentives in Mexico to provide incentives to developers to include social housing in various forms, however these have been abused very often and many of these incentives have been cancelled. Have you had similar experiences in Brazil?

IM: I am not sure about the specificities on this but I know that at this moment, that developers and the city government, for example in Sao Paolo, they are in a sort of experimental phase, in a pilot phase of these new measures. So the real estate sector is a little resistant to such measures. Because historically housing projects have been really bad, in terms of design quality so there is much skepticism. Many developers are worried about their corporate image, and so they can be quite resistant to social housing projects.

AB: Another aspect consists in social processes to build transit oriented social housing. Many times it is neighborhood associations or activists group that resist urban project, especially when it has to do with densification or TOD strategies.

IM: Yes exactly, in Brazil this is also a reality. Neighborhoods near transit with low density, historically, they often opposed densification strategies [...] People are also often resistant to newcomers so these issues add further challenges. I think the city needs to be prepared to face these situations and act accordingly.

AB: Have you had any experiences in overcoming or dealing with this form of opposition? Any proposals?

IM: I think in these situations you need to come up with unique situations and evaluate every situation case by case, because the situations differ so much. There is no one recipe for success in this situation. I think it is really important to establish an effective dialogue between the government and those being affected. This is very challenging. I am not saying that in Brazil we have been doing this well, but I think that cities such as Sao Paolo is trying to create more participatory processes so this is a start. But we need more. Someone needs to explain to neighborhood groups why a strategy is being implemented, why the city is proposing something. There needs to be a strategy that explains why the public interest can be more important than the private interest.

AB: However this is also very challenging, because often neighborhood groups are not even open to listening to these proposals or explanations.

IM: Yes, I agree completely. Sometimes people just don't want to hear it, but a solution to this issue needs to be found. Proper research needs to be conducted with the adequate data and effective discussion. But here is no unique recipe to deal with this.

AB: But we can say that the urban evaluation tool is at least a good way to start this and evaluate projects.

IM: Yes and I think it is very possible to replicate something similar in Mexico and then take it and explain it in a friendly way to the general public. Because there are two aspects to these types of projects: one is to have a very solid technical proposal; and the other is to have an effective communication strategy, and create awareness on urban issues. I think if we want to sell ideas, we need to keep all this in mind and create work that is not only technically solid but also friendly to the public. I think the inclusive aspect of a TOD project is really important and should be very present in the strategies used.

[End of Interview]

12.2.9 Sergio Gonzalez

06600 Plataforma Vecinal y Observatorio de la Colonia Juarez/ Neighborhood Association December 1, 2016; 7:00-8:00 pm (Colonia Juarez)

Sergio Gonzalez: I do not know if you know Colonia Juárez. Well the Colonia Juárez is a *Colonia* that is adjacent to the historical center. *Bucarrelli* is our border with the center. So we are a colony that arises at the end of 1900. And its same urban trajectory ... It was not a colony thought of origin as a single colony but was stitched together by different pieces ... So we have *Bucarrelli* as a border with the center and In *Bucarrelli* we have two metro-buses. We have the *Metrobus* that comes from here from *Balbuena*, and that is also a station that has to do with your thesis that has the suburban train to the northern part of the city. And then we have another *Metrobus* here that goes around Cuauhtémoc. So a colony that has two lines of

Antonia Burchard-Levine

Master Candidate –Urban Management
Technische Universität Berlin

Metrobus on an avenue can have its complications [...] I recommend that you go to *Bucarelli* to observe, and take photos and you will realize that there is already a high consequence of, we do not say gentrification, We say Whitening.

Antonia Burchard: Can you explain what is whitening?

SG: Yes I will explain later. I think it's worth it to do a photographic study of *Bucarelllo* because you're going to see resistance, for example, groups against evictions. The arrival of the Metrobus is already causing an increase in the area. You will see many buildings with blankets, where there are people who are trying to defend their neighbours' roots in their right to remain in their territory. Worse you will also see projects such as the fashionable cafes, the gourmet restaurant, you will see many ghostly areas and you will see a new typology of architecture that we call honeycomb architecture, which is this type of dense and compact architecture where they come to live 200 people in little space, with minimum units, 42 square meters, the smallest, and the largest of 70 square meters. With all the neighbours looking at each other, without the possibility of the street. In short, *Bucarelli* is worth a visit. This is also the Secretary of the Interior and these are very interesting because then there are many government buildings. *Bucarelli* also has a commercial vocation especially of carpet, industrial and automotive carpets, parts of cars that have always been there and then they will disappear. Not always, because *Bucarrelli* was the most luxurious street in the late 19th and early 20th century. It was the street where the rich were going to boast their carriages, which had just arrived from Europe. And here they presumed. Later it had its decadence of very little by little and now it is a popular neighbourhood that is living what we say whitening to him. Let's talk about that later, it's a very *Juarica* term. Then we have the *Paseo de la Reforma*, which first had a bus transportation system, route 100, you should also study Route 100. Route 100 was a para-statal of transportation managed by the federal district government, it was a very powerful union and to kill To the union, they kill route 100. They privatize it is a total disaster, with the *peseros*. Then the *Paseo de la Reforma* is arranged and a public transportation system is put in which are the buses for *Reforma*, the green ones, but they substituted the wild *peseras*. In *Bucarelli* also the wild *peseros* disappear. In *Chapultepec*, there is a project to make a *Metrobus Chapultepec*. And in insurgents there is a *Metrobus* which makes the Juarez have 3 lines of metrobus, the *Cuauhtémoc* station, the *metro Insurgentes*, *metro Sevilla* and then *Chapultepec*. If you take

Antonia Burchard-Levine

Master Candidate –Urban Management
Technische Universität Berlin

photos around the subway stations, if you return in several years to do your doctoral thesis or the same subject in 5 years you will be terrified. There is a project of a *Metrobus* line on *Chapultepec* Avenue that goes to the airport and that would also go to Santa Fe. Then there is a *Metrobus* project on *Paseo de la Reforma*. Then in the end Juarez will end up having 4 *Metrobuses*, 4 subway stations and so that we want more. There are two approaches; one is the executive banker in *Reforma* and an office and housing corridor on *Chapultepec* Avenue, with 20-story buildings over Rome, and 40 floors over *Juarez*, which is total madness. The idea here is to densify the perimeter *Juarez*.

Antonia Burchard: Whose proposal was this?

SG: It was SEDUVI's. But fragmented. Of the corridor of *Reforma* on one side, and *Chapultepec* corridor on the other. [...] So what has happened since these reforms? Well, the Torre Mayor was the first building of more than 40 floors and as a result more buildings followed. And there are already cases of displacement of people, collectives or buildings by the rise of the price of the land ... There are two people, Viktoria and Dionysios with whom you should talk. Viktoria got displaced and Dionysios is doing thesis on your same subject.

AB: All these investments in transit near here, how do you affect the residents of *Juárez*? To begin with, would you say that investing in public transportation is something that benefits people, for Mexico City? How do you think that the implementation of the *mMetrobus* and subway that you told me affects the colony?

SG: Yes, I agree that transport brings about some benefits...

Other Member (OM): The city cannot only be thought solely through the lens of transportation. The problem is the energy model behind the cities and the dynamics and territorial displacements in general, especially in Latin America.

AB: Do you think that public transport benefits the city.

Antonia Burchard-Levine

Master Candidate –Urban Management
Technische Universität Berlin

OM: What you cannot justify is an increase in the investment of public transport that in the end generates an economy that is bigger, meaning transport should facilitate people lives, and not the other way around. Then there is fact that the a huge percentage of the budget is allocated to transportation.

AB: So you are saying that there is a problem at the level of transport financing or transport itself?

OM: I'm saying that the economy that goes towards transportation is increasing. I am saying that cities cannot be developed around transportation, but that the transport should be oriented towards the city. So what needs to be done is to change the dynamics of the economy, and that the transport is adjusted to the economic dynamics with better solutions, but for that, if for example, you now want to remove the routes of *peseros* to put new transport that decreases the negative impact, because it is not so complicated. It is necessary to study the travel needs of people and routes, to see the different situation of people, at the level of public spaces and basic infrastructure needs linked to those routes, and to see how many people commute to work and In function of that, you should distribute the public transport.

AB: I agree. But you have to think about that data, there is no such data for *peseros*. So it is very difficult to have that information if the data does not exist.

OM: But the logic can be changed. The logic of TOD is linked to the fact that more and more time is lost in displacement, and they do not modify the distances of these commutes but rather lead to the fact that the city expands more and more.

AB: But that depends on what you understand as the concept of TOD. Precisely, a problem with the TOD is that it is very difficult to understand. Sometimes there are misunderstandings because the concept can define many projects with very little in common. For example, many say that *Reforma 222* is a TOD because it has uses of mixed lands, has, commerce, offices and homes and is well located in terms of transportation. But the problem is that it has no focus on equity and social inclusion.

Antonia Burchard-Levine
Master Candidate –Urban Management
Technische Universität Berlin

SG: Also *Reforma 222* worked very well in terms of its offices, but it failed in terms of housing provision.

AB: And that's precisely the topic I am investigating. They focused on selling very expensive housing without including affordable housing. They brought people closer to mass transit, just those who do not use public transport.

SG: Well let's continue talking about *Juarez*. We as an observatory, we frequently make a tour to monitor how displacement are occurring going here in *Juarez*. And we just made a very small one for the block [...] We have maps and data of displacements and we use neighbourhood tools, our problem is to systematize the information. We activate neighbourhood methodologies that are possible to do with neighbours. We are not the academy we do not pretend to be the academy, we are an observatory that operates in a very organic way based on its resources ... The platform has a sense of neighbourhood organization. The observatory is a tool that generates links with the academy, where we seek that the academy collaborates with us with the incidence in the territory. It is a collaboration of peers, not technical support, but rather horizontal. We want to produce and disseminate knowledge together.

[...]

SG: Here we have a map that represents buildings where there have been displacements, with colonists or trade, and loss of employment. We observe the three things [...]

AB: Could you explain to me the methodology you use to measure displacements?

SG: The first thing is the neighbourhood tour and observation. As a neighbour travels the neighbourhood every day and if you are an observer you know where people live and where the shops are. One recognizes its own neighbourhood in its uses and customs. Then the first thing is to begin to detect that the things that one was accustomed to seeing, begin to disappear. The shops change etc. The premises are put to rent and then begins to bequeath a new typology that is different from the previous one and that this new typology of commerce implies a new typology of population with other habits of consumption. Then, we quantify first the

Antonia Burchard-Levine

Master Candidate –Urban Management
Technische Universität Berlin

displacement of the original place, that has roots in the neighbourhood and dating decades back. Someone who has lived here for more than 10 years old, has the right to remain. There should be a law to respect the will of a person to remain in their neighbourhood to live or work. And that should be law and be called the Neighbourhood Rooting Law. But that law does not exist, it is in the constitution but it is not legislated. We are looking for a way to talk to see if we can legislate.

SG: So we as a platform, and no longer as an observatory, we think that there must be a law or legislation that respects the roots of our neighbourhood. And the neighbourhood roots have to go two ways; for residents and for the local commerce. It is necessary to protect the permanence in the neighbourhood of small and medium trade.

AB: When I proposed my first methodology to study displacements, a difficulty was that displacement couldn't be measured because it is very difficult to really know why people are leaving and where they are going.

SG: We know. We have this information.

AB: And how do you do it? Can you explain a little how to document these changes.

OM: [...]

SG: We conduct routes and map based on observations and neighbourhood narratives. Here on a map we have documented the displacements. In a building there are 200 people [...] of commerce etc. And the most common causes of displacement are increased rent, cancellation of contracts, evictions, an area too expensive for investors. Finally, there are the losses of sources of employment. There we found that 230 jobs had been lost. Then you have the people who lived there and were expelled for various reasons, and everything has to do with the increase in the price of the land.

AB: and how fast have these people been displaced.

Antonia Burchard-Levine
Master Candidate –Urban Management
Technische Universität Berlin

SG: In more or less a year and a half.

AB: And we know the exact reason for each displacement.

SG: In some cases yes, in others not. We went building by building. For example there was a change from Chrysler company to Audi, and that is very important because Audi is a company of a much more expensive car. It is a car brand not accessible to anyone [...]

AB: So when you talk about compact and dense city strategies...

SG: We completely disagree with this.

AB: Yes and rightly, I would like to know your point of view. Why are you against densification and what would they propose in return? And also if you can explain a little because why you oppose TOD?

SG: The truth is that in regards to TOD I do not understand so much. We first thought that there should be a proper scheme of affordable incomes. There should be a cataloguing of buildings in which under no circumstances would the rent increase be allowed. And that does not exist at the moment. There are tenancy laws that say that rent cannot be raised more than inflation. But then everyone does what they want. There are threats, and most people are not familiar with the laws.

AB: I would like to see what can be done at the level of public policies, the private sector and what can be done at the level of neighbouring groups or social processes.

SG: Okay, I'll tell you the proposals we have. We have presented them to delegate Ricardo Monreal of the *Morena* political party here in *Cuauhtémoc*, we have presented them to the assembly of many parties, in short, we believe that; There should be a program of buildings for the elderly, with incomes that do not exceed a percentage of their income but are differentiated. The same would have to happen for young people, for women and for single mothers. These are the rental housing program that we are proposing. Then there is a

Antonia Burchard-Levine

Master Candidate –Urban Management
Technische Universität Berlin

cooperative housing program. Meaning to avoid speculation of the land and in each neighbourhood would have to have a percentage of the territory, would have to be housing in cooperative, following or improving the Uruguayan model. And that avoids speculation. There also has to be a shopping model, and it runs parallel to the bank's credits. And it would have to be a model that does not ask for a down payment. But the problem with the middle and lower classes is that they do not have the possibility of saving to pay that down payment. There should be ways for those people to have access to credit. Mechanisms must be created, not only for residents but those who come to our *Colonia* daily. So that they all decide together but differently depending on their use and interest. There are themes for those who live here, for those who work, and those who travel for one reason or another. Differences should be sought. The first thing is to democratize these diagnoses.

[...]

SG: Then you have to establish funds so that housing for rent is possible. But a new model, not the one that INVI or INFONAVIT proposes

AB: Well now I would like to understand a little regarding opposition to TOD.

SG: It's not exactly an opposition to TOD. It is rather to densification. What we have mapped out is a real estate state. The laws that have recently been adopted with the development of the city are laws in the way of the real estate market or that play to social housing without control mechanisms, and then takes advantage of the real estate market and end up abusing the laws. Have a state that is planning the city to favor the real estate developer because no one wants that. There is no diagnosis of the city, for example, of sub-land or other factors. And that is super problematic. They want to densify an environment that is impractical in two senses, you have to spend a lot on bringing in water and have not respected the laws. There is much abuse on the part of all...officials, businessmen. If there were a better conjuncture between citizen and officials we would have a better city, with demarcated frameworks of action and decision field between one and another, civil society and technical experts. We as neighbours would do this civic part, and the officials would do the technical part. If you have a tower that will put 4000 cars into this colony, but you are going to put more people that come in transport, that they

Antonia Burchard-Levine
Master Candidate –Urban Management
Technische Universität Berlin

bring garbage etc. have to contribute. What is here is a real estate market creating more complications

[End of Interview]

12.2.10 Josefina MacGregor

Spokeperson for SUMA URBANA/ Neighbourhood Association

December 9, 2016; 9:00-10:00 am (San Angel)

Josefina MacGregor: We started with this working group as such about 12 years ago and we institutionalized ourselves with a name a year ago and we call ourselves Suma Urbana. We passed the advisory capacity to organize, let's say construction giveaway, and my team member explained it. And we invited 50 neighbours of the *Ccoloniascolonias* of the city and we explained it to them, so that they replicated this in their colonies. We did it on several subjects. We have advised several *Ccolonias* and we have a network of 800 *Ccolonias*. It is about citizen participation, to explain laws so that people can understand them well, and defend themselves and make the adequate proposals. That's one of the areas we work in. The second area, let's say because of the expertise that we have acquired, we got gotten very strong at dealing with different law initiatives.

Antonia Burchard: One problem I see is that there is a general lack of communication between neighbours and authorities, would you say that you function as an intermediary?

JM: What happens is that many lawmakers ask us to interpret the initiatives they propose. For example, we interpreted too the initiative of the housing law, and we help to make them more understandable. They sent it to us as Suma Urbana. We receive it, and rather they, the legislators, see us as having helped them technically. We were appointed as advisors to the assembly because, finally, the assembly members see many issues. And they have realized that urban development is something that affects the population and that the population is aware of it and an error in urban development, can have high political costs. Then they ask us for advice, and we do the interpretation, and share it. This is how we operate. We have managed to stop a previous law on Urban Development. And now regarding this Housing Law which they sent us one day before it was going to be approved. We received it, analyzed overnight with the group

Antonia Burchard-Levine
Master Candidate –Urban Management
Technische Universität Berlin

of expert. And it was deplorable, we all felt like crying. We conducted an analysis, we uploaded it to social networks and the next day it was published in 4 newspapers. This is how you can stop bad laws from passing.

AB: What was deplorable about the law?

JM: For starters, any real estate company investing in housing, because of the fact that it invested in housing, did not have to pay taxes. Also it lacks a proper definition of what constitutes a vulnerable population. They provide subsidies to vulnerable populations, and this consists in all women, all young people from 18 to 29 years old, all older adults, anyone with disabilities and anyone who by religion, race, sex, etc. might suffers discrimination. Well that is 100% of the population. That is handled by INVI and INVI is in charge of subsidizing housing. If you do not define your populations well, then part of the subsidy that should go to those who need, ends up being directed towards other populations.

AB: And when they define vulnerable populations, do they not define vulnerable populations in terms of income.

JM: No, INVI determines it at its own discretion. And so much of the population that needs housing subsidy is lost. So, anyone who builds a building near employment centers or transportation center is exempt from taxation. And that's the whole city! It's absurd. We are not talking about a blank city, we are talking about a city that already exists, is already built. That's what I tell my academic friends who are pro-transport, what is the point of making 40 buildings near a metro where the waiting time at the traffic light in the corner is 16 minutes at any time of the day. You cannot create more housing there. Better to create a center that takes people to their homes. You can no longer concentrate more people in these areas.

AB: But the problem I am seeing is that many times when implementing these TOD strategies, or when housing is built near transportation, these homes end up becoming housing for high income people. So what I propose in my thesis is that, if you are going to build housing near transportation, you have to make sure there is affordable housing for the people who need it, and who would most benefit from proximity to transit.

JM: That's impossible, due to land prices. So, we have to be realistic and start by realizing that we are talking about this city. That this is the reality of Mexico. We have also stopped Norms 30 and 31, and we have stopped them with good reasoning, if not we would not be able to do anything. So it turns out that the proposals for these norms is such that you can build it right now by expropriating land, buying territorial reserves with the surplus value generated, with FIBRAS, and that is extremely dangerous, because at that moment you take pension funds through these funds investment, to invest in something... For example, there are a couple of rates that they raised for Mexico, 4 billion, for 2 real estate complexes that still do not have land use. So that affects the fund, and it was stopped 3 years ago and the Mexican stock exchange has done nothing. In this type of context, the fact of financing housing through funds makes the government lose responsibility, you transfer it to a third party, there are many inconsistencies. So, norms 30 and 31 were along these lines. You authorize to build housing that is "social interest" housing in quotes, and with that justification you put new buildings in *Colonias* such as these ones, and without the adequate zoning permissions. Here in *San Angel* you should not be built higher than the bell tower of Carmen. There are many places in which it is not possible to further increase densification. You build a building, and if you put it in this *Colonia* and you say that you are going to rent subsidized housing for social interest at 800 pesos a month, what is going to happen? The one that takes it will sublet for 35 thousand, which is the real value. In Mexico, here, for example, there are already low-income people who use public transport, etc. You do not have to bring it from elsewhere; they are already here in *Coyoacan*, in *Tizapan* etc.

AB: And what would be the instruments to prevent this? Or to keep these mixed-income communities?

JM: If they intend to provide housing of social interest, when the price of the soil does not allow it, the only thing you are doing is promoting a *clientelism* and corruption. What needs to be done is a reconversion of the city. What needs to be done is to create dignity for low-income *colonias*, to invest better in these *colonias*, for example in security in better light, and so on. So what you have to do is reconvert these areas. For example, in *La Doctores colonia*, there is s who wants to gentrify her, better reconvert her. What you do is give him money with INVI money, so that your building will have better pipes etc.

AB: But what if they reconvert these areas, then the value goes up and people start to move about issues of gentrification?

JM: But that would be their decision as it corresponds to the surplus value. The issue is that they benefit. One proposal we made is that any change of land has to take 5 years to be effective so that the colony decides whether or not it accepts it. We have not been able to pass it to the constitution. And for housing of social and popular interest, especially, it does not say that housing of social and popular interest is non-profit, they skipped it. That should be essential. Because if not it is confused with commercial. The housing of social and popular interest only refers to the cost of sale, but before they said "you have to sell at this cost" but with these finishes, because if they do not sell it in gray, and with these dimensions. Therefore, the moment you do not clarify things, and only use the sale value as a definition, then, there is abuse of the subsidies. As it is written, INVI does what it wants. But if the definition of a law is bad, control is impossible. If your subsidies go to this vulnerable population and your only condition is your selling price, it is a clientele network.

AB: What happens with many groups or neighbourhood associations is that they have many ideas of how they want things to be, but maybe they lack technical know-how. And that creates many conflicts.

[...]

JM: When they talk about transportation-oriented development, I tell them to tell me about a station that is not overloaded, that the construction of the house is going to be for social interest. There simply isn't any. We must separate international concepts, and seek to improve the quality of life of people, give them dignity. Many colonies have the subway nearby, they are in good location, but they have to be given more dignity [...] Mexico is a made city, you can not start from scratch. So, those who are involved in the subject of transportation, for example, they say that they are going to put a pedestrian street, a cycle rout. That is short sighted thinking, they are too closed minded. In addition there is a lack of cooperation, and lack of transparency.

Antonia Burchard-Levine

Master Candidate –Urban Management

Technische Universität Berlin

The realities are very complicated. And perhaps we are much less able in technical terms, but we live in reality. And we live it and feel in many sectors and we dedicate many hours to this reality.

[End of Interview]

12.3 INTERVIEW ANALYSIS AND CODING EXAMPLE

Table 6. Interview Analysis

INTERVIEWEE	PAGE	COMMENT	FIRST LEVEL CODING	LINE	SECOND LEVEL CODING
Government	3	the city still has many restrictions	Government Restrictions and barriers	33	Administrative/ bureaucratic barriers
Government	6	We need legal instruments that allow us to be able to identify the underutilized soil that has legal problems and to be able to quickly incorporate them into urban development.	Need for instruments to overcome administrative barriers	23	Administrative/ bureaucratic barriers
Government	6	When you receive an inheritance you have to pay taxes the moment you make the writing change.	Administrative/bureaucratic barriers	14	Administrative/bureaucratic barriers

INTERVIEWEE	PAGE	COMMENT	FIRST LEVEL CODING	LINE	SECOND LEVEL CODING
Government	7	For example, to achieve a merger of two estates, it has a very high cost. Because you have to pay taxes for the operation. This is pure is bureaucracy and taxes. For the city what is more convenient, is that in two buildings we build home, develop two small buildings, to the city what is convenient is that you join them and do something larger, with better architectural project. But this merger costs a lot, and for example we would have to eliminate this cost by merger.	Administrative/bureaucratic barriers	27	Administrative/bureaucratic barriers
Experts	7	The cross-subsidy is one, you can charge the developer a number of living or an amount of money to be able to invest in a social	Cross subsidy to ensure social housing within TOD	12	Better subsidies for housing and TOD

INTERVIEWEE	PAGE	COMMENT	FIRST LEVEL CODING	LINE	SECOND LEVEL CODING
		housing infrastructure			
Civil	5	This will conclude in October. The idea is to generate a development proposal for our area. A job that I believe will participate as 15 of us, some students of masters and some academics. In gentrification, for example, yesterday we went to the Pushkin Park that was once a park and now is a square.	Bottom up initiatives	37	Citizen participation
Government	5	I would say that a stronger participatory planning exercise, note that this PGDU has been developing under what is called the Council for Sustainable Urban Development (CONDUSE) that has allowed us to dialogue with	Greater participation	citizen 29	Citizen participation

INTERVIEWEE	PAGE	COMMENT	FIRST LEVEL CODING	LINE	SECOND LEVEL CODING
		more neighbors, give them a Voice and sit down to understand why they do not want more people in their colonies, but also explain why if it has to reach more people.			
Civil	1	And we invited 50 neighbors we explained to them, so that they replicated in their colonies.	Engagement of civil society	8	Citizen participation
Civil	4	ITDP produces reports that are aimed at governments and not citizens and are not willing to argue with us	Lack of citizen consultation	22	Citizen participation
Civil	5	At CONDUSE we did not want to participate because we found it to be to top-bottom, too authoritative.	Discontent with current participative structures	1	Citizen participation
Civil	5	The idea is to map the area, what there is, how people	Citizen consultations	36	Citizen participation

INTERVIEWEE	PAGE	COMMENT	FIRST LEVEL CODING	LINE	SECOND LEVEL CODING
		perceive it and what people want and generate a proposal			
Civil	7	I insist that citizens have to be involved in the processes.	Need for citizen participation	34	Citizen participation
Civil	8	We as neighbours are the ones who have to live in the environment. I can not come to say how they will change my environment if I am the one who lives here and who is better as the changes should be.	Citizens understand what they need in the neighbourhoods more than the experts and authorities	4	Citizen participation
Civil	8	You have to generate projects that come from below.	Need for a bottom up approach to urban projects	6	Citizen participation
Civil	8	We need to generate mechanisms of participation, and I think we are far from having these efficient mechanisms.	Need or more efficient participation mechanisms	14	Citizen participation

INTERVIEWEE	PAGE	COMMENT	FIRST LEVEL CODING	LINE	SECOND LEVEL CODING
Civil	8	But I think we have to think things through well, everything takes its time. It is necessary to endure things, to generate consensus, then obvious there are always criticisms, and then you have to take these criticisms, come to an understanding think well how things would work well, and then generate plans. And it is slow but I think that would work.	Need for bottom up approaches to planning	17	Citizen participation
Civil	6	There is this idea that development has consequences that the city has to generate wealth, to revitalize.	Neoliberal city	42	City left to market forces
Civil	6	In my opinion is the Secretary of Economy that is generating the development of the city and not SEDUVI.	City being run for profit rather than benefit and welfare of peoples	44	City left to market forces

INTERVIEWEE	PAGE	COMMENT	FIRST LEVEL CODING	LINE	SECOND LEVEL CODING
Civil	13	Have a state that is planning the city to favor the real estate developer because no one wants that. There is no diagnosis of the city, for example, of subsoil or other factors	City left to the market	18	City left to market forces
Private	3	And to be very sincere, we went through a significant amount of literature, and we fond the concept of Community Land Trusts, because we want to go to the market with a product that we can not sell, due to legal restrictions, but we want to occupy 100% already either at market price or otherwise.	Community land trust as a strategy	30	Community land trusts
Civil		In addition there is a lack of cooperation, and lack of transparency. The realities are very complicated. And	Complexity, lack of coordination and lack of transparency	43	Complexity of TOD

INTERVIEWEE	PAGE	COMMENT	FIRST LEVEL CODING	LINE	SECOND LEVEL CODING
		perhaps we are much less able in technical terms, but we live the reality. And we live in many sectors and we spend many hours.			
Private	1	and I think that phrase explains a bit the complexity of implementing TOD projects.	Complexity of implementing TOD projects	21	Complexity of TOD
Private	5	But when it comes to developing projects of this type in which so many interests have to be aligned, and to overcome so many barriers, it is exactly what builds an environment that favors corruption	Complexity of TOD project	31	Complexity of TOD
Experts	6	But the reality of a heterogeneous city like the one we have, everyone has different interests that are by	Complexity of TOD strategy	18	Complexity of TOD

INTERVIEWEE	PAGE	COMMENT	FIRST LEVEL CODING	LINE	SECOND LEVEL CODING
		nature incompatible			
Experts	5	The problem with TOD is that too many monkeys have to stand still so the picture goes well	Complexity of projects	TOD 34	Complexity of TOD
Civil	11	The observatory is a tool that generates links with the academy, where we seek that the academy collaborates with us with the incidence in the territory. It is a collaboration of peers, not technical support, but rather horizontal. We want to produce and disseminate knowledge together.	Association with institutes	academic 9	Cooperation with academia for urban planning
Private	5	But when it comes to developing projects of this type in which so many interests have to be aligned, and to overcome so many	Corruption	31	Corruption

INTERVIEWEE	PAGE	COMMENT	FIRST LEVEL CODING	LINE	SECOND LEVEL CODING
		barriers, it is exactly what builds an environment that favors corruption			
Government	2	That is what happened to Rule 26. Rule 26 is a rule that exists, but is suspended. It has been suspended for two years, because there was abuse by the developers	Density norms and abuse by private sector	43	Corruption
Experts	14	Another issue is that there is a ton of corruption which further prevents these norms for being implemented, there is not controlled.	Corruption	37	Corruption
Experts	16	One, corruption	Corrupting hinders production of housing in central locations	14	Corruption
Civil	13	There is much abuse on the part of all, official, businessmen.	Corruption	21	Corruption

INTERVIEWEE	PAGE	COMMENT	FIRST LEVEL CODING	LINE	SECOND LEVEL CODING
Academia	1	Informality exists, because you allow it. Nothing more. And all the informal commerce that uses public space is there because you allow it and because there are a series of mechanisms of corruption very well established	Corruption	20	Corruption
Civil	2	There are many places that densification can not stand anymore. You build a building, and if you put it in this colony and you say that you are going to rent subsidized to the social interest in 800 pesos a month, that is going to happen, the one that takes it will sublet to 35 thousand that is the real value	Subsidised social housing leads to abuse	36	Corruption

INTERVIEWEE	PAGE	COMMENT	FIRST LEVEL CODING	LINE	SECOND LEVEL CODING
Civil	3	We as proposals, is that if they intend to provide social housing, when the price of the land does not allow it, the only thing you are doing is promoting the clientele market and corruption	Social housing in high cost and leads to corruption and clienteleism	1	Corruption
Experts		long-term lease	Long term lease as a means of decoupling housing value from land value	14	Disaggregate housing and land prices
Private	3	According to the literature, the Community Land Trusts model, gave us a way of saying we are offering a product that has the best attributes for the individual for a property but benefits in not buying the land as property	A strategy to separate land values and housing values	33	Disaggregate housing and land values

Antonia Burchard-Levine
Master Candidate –Urban Management
Technische Universität Berlin

12.4 LIST OF TOOLS FOR TOD AND HOUSING AFFORDABILITY (POLLACK ET AL 2010)

Table 7. Planning Tools

Policy Tool	Summary	Information	Example
Comprehensive Transit-Oriented Development Strategy	"Communities can develop comprehensive strategies to preserve existing affordable housing and produce additional affordable housing in neighborhoods near existing or planned transit stations and then follow up to ensure their implementation". (Pollack et al., 2010, p.37)	Comprehensive planning for transit-oriented development (TOD) therefore requires the active engagement of local government." Pollack (Pollack et al., 2010, p.37)	San Leandro CA Downtown Transit-Oriented Development Strategy
Community Benefits Agreements	"When community coalitions negotiate community benefit agreements with developers of transit-oriented and other development projects, cities often incorporate the terms into their development approvals and therefore ensure that the deal is legally binding." (Pollack et al., 2010, p.38)	A CBA is a project-specific, negotiated agreement between a developer and the community coalition ensures community support for the project [...] CBAs were developed to ensure that developers receiving government benefits, such as tax increment financing, could be held accountable to generate the project benefits that were promised. "Benefits addressed in CBAs may include living wages, local hiring and training programs, affordable housing, environmental remediation and funds for community programs."(Pollack et al., 2010, p.38)	Longfellow Station Community Benefits Agreement (Minneapolis, MN)
Broad-based Community Engagement	"Community-based organizations and nonprofits can work together to ensure that a broad cross-section of community residents participate effectively in local land use planning efforts around transit stations." (Pollack et al., 2010: p.39)	"The Collaborative works to help citizens better understand, participate in and influence plans for transit oriented development [...] As part of its efforts, the Collaborative provides technical assistance to local leaders to ensure that residents participate effectively in local government processes."(Pollack et al., 2010, p.39)	Great Communities Collaborative (San Francisco Bay Area, CA)

Policy Tool	Summary	Information	Example
Broad-based Community Engagement	"Government agencies can put in place multiple mechanisms to ensure broad-based community participation in planning for both transit and future development in neighborhoods along the transit corridor" (Pollack et al., 2010: p.39)	A community engagement framework keeps residents informed and actively engaged ." (Pollack et al., 2010, p.39)	BeltLine Community Engagement Framework (Atlanta, GA)
Coordinated Planning by Local Governments and Transit Agencies	"Planning grant programs can be structured to require local governments to coordinate their planning efforts with those of transit agencies". Pollack et al., 2010, p.40	"Planning grants can provide local governments with the resources and incentive to undertake early and coordinated planning for development in neighborhoods with existing or planned transit stations. And, if structured properly, such funding can also ensure planning coordination between local governments and transit agencies." (Pollack et al., 2010, p.40)	Pennsylvania Transit Revitalization Investment Districts
Transit Corridor Planning	"Community development corporations (CDCs) can play a critical role in planning for equitable transit-oriented development around existing and planned transit stations along a transit corridor and then in implementing the planned transit-oriented development". Pollack et al., 2010, p.41	"Planning for transit and accompanying transit-oriented development should occur at different scales, for both specific station areas but also for entire transit corridors" (Pollack et al., 2010, p.41)	The Fairmount Line CDC Collaborative (Boston, MA)
Transit Corridor Planning	"A proactive, facilitated process can be used to bring all interested parties together to shape development projects along transit corridors before they are submitted to a municipal agency for approval." Pollack et al., 2010, p.41	"The Corridor Development Initiative (CDI) fosters a partnership among neighborhoods, city government, developers and a technical team of development consultants, design experts and facilitators to raise the level of dialogue around redevelopment opportunities along major transit corridors. CDI takes citizens out of the role that they usually play—reacting to development proposals made by others—and puts them into a proactive role of shaping development in their community".	The Corridor Development Initiative (Twin Cities, MN)

Policy Tool	Summary	Information	Example
		(Pollack et al., 2010, p.41)	

Table 8 Housing Market tools

Policy Tool	Summary	Information	Example
Transit-Oriented Development Acquisition Funds	"Acquisition funds for transit-oriented development can be used to acquire sites near transit for future development of affordable housing or to acquire and preserve existing affordable housing before planned transit projects drive up land and property values." (Pollack et al., 2010, p.43)	The South Corridor Land Acquisition Fund is a fund " to purchase land near planned transit stations along its South Corridor Light Rail for future transit-oriented development (TOD) and specifically development of transit-served affordable housing." (Pollack et al., 2010, p.41)	South Corridor Land Acquisition Fund (Charlotte, NC) Denver Transit Oriented Development Fund (CO) Bay Area Affordable Transit-Oriented Development Fund (CA)

Policy Tool	Summary	Information	Example
Housing Trust Funds and Other Acquisition Funds	<p>"Housing trust funds and other land acquisition resources not exclusively targeted to transit-oriented development can be used to acquire sites for affordable housing developments near existing and planned transit stations." (Pollack et al., 2010, p.43)</p>	<p>Housing trust funds are distinct funds established by city, county or state governments that receive ongoing dedicated sources of public funding to support the preservation and production of affordable housing. (Pollack et al., 2010, p.43)</p>	<p>Affordable Housing Trust Fund (Charlotte, NC) Land Acquisition for Affordable Development Initiative (MN)</p>
Low-Income Housing Tax Credits	<p>"Both preservation and production of affordable housing can be financed in part through the Low- Income Housing Tax Credit (LIHTC) program, particularly in states that favor transit-accessible projects in their qualified allocation plans." (Pollack et al., 2010, p.45)</p>	<p>"The federal Low-Income Housing Tax Credit (LIHTC) program provides tax credits that developers can use to raise capital for the acquisition, rehabilitation or construction of affordable housing. State housing agencies allocate housing tax credits through a competitive process, specifying how they will allocate their LIHTCs in a Qualified Allocation Plan and implementing regulations that may award "points" for certain kinds of projects, state preferences (without awarding points) or set aside a specified portion of tax credits for certain kinds of projects."(Pollack et al., 2010, p.45)</p>	<p>California LIHTC allocation Georgia LIHTC allocation</p>
Corridor-Based Tax Increment Financing Districts	<p>"Instead of conventional Tax Increment Financing districts that apply to a single geographic area around one transit station, cities can create corridor-based districts designed to allow revenue sharing among neighborhoods in the transit" corridor. (Pollack et al., 2010, p.46)</p>	<p>Cities use tax increment financing (TIF) to finance economic development within a targeted geographic area without raising taxes. The city or a partner developer makes capital improvements in the area which lead to rising property values and therefore higher property tax receipts; the incremental tax revenue increases over a predetermined base are then captured by the TIF district as revenue and used to reimburse the city or partner developer for the cost of the initial (and</p>	<p>Dallas TOD Tax Increment Financing District (TX)</p>

Policy Tool	Summary	Information	Example
		any subsequent) improvements. (Pollack et al., 2010, p.46)	
Corridor-Based Tax Increment Financing Districts	"Tax Increment Financing districts can be created on a corridor-wide basis and a portion of the revenues generated can be dedicated specifically to the preservation and development of affordable housing throughout the corridor. (Pollack et al., 2010, p.46)	"When public investment leads to rising property values, incremental tax revenue increases over a predetermined base can be captured and used to further improve the area (Pollack et al., 2010, p.46)	BeltLine Affordable Housing Trust Fund (Atlanta, GA)
Inclusionary Zoning	"Communities with transit stations can adopt inclusionary zoning requirements to ensure that a modest share of newly-constructed rental and homeownership units in the area around the station are affordable".Pollack et al., 2010, p.47	"Inclusionary zoning helps create privately-financed affordable housing when communities attract new housing construction, as is often the case in newly transit-served communities. Most inclusionary requirements are enacted as a zoning ordinance and require that a modest proportion (usually between 10 and 25 percent) of units in a housing development be affordable. Some inclusion- ary zoning ordinances compensate developers by providing density bonuses." Pollack et al., 2010, p.47	Montgomery County, MD Carlsbad, CA
Incentive Programs for Housing Production	"In order to overcome local resistance to zoning allowing for construction of dense, affordable housing, states can create incentive programs which reward local communities that create such zoning near transit". Pollack et al., 2010, p.48	Rewards municipalities that adopt zoning allowing as-of- right construction of housing in smart growth locations, including near transit stations. Chapter 40R encourages cities and towns to zone for compact residential and mixed-use development, creating zones pre-approved for higher-density development that will attract developers (Pollack et	Chapter 40R Smart Growth Housing Districts (MA)

Policy Tool	Summary	Information	Example
		al., 2010, p.48)	
Incentive Programs for Housing Production	"Federal transportation funds can be used by metropolitan planning organizations to encourage the production of dense affordable housing near transit and thereby boost transit ridership. Pollack et al., 2010, p.48	"the Housing Incentive Program (HIP) to fund transportation-related livability infrastructure in qualifying affordable housing projects[...] Grant amounts increase to encourage both greater density and greater affordability (Pollack et al., 2010, p.48)	Housing Incentive Program (San Francisco, CA)
Incorporating Affordable Housing in Joint Development	"Transit agencies can leverage the production of affordable housing near transit and increase their ridership by adopting joint development and transit-oriented development policies that encourage production of affordable housing as part of joint development efforts." Pollack et al., 2010, p.48	"The sale or lease of transit authority property for development is called "joint development" because the process involves a partnership between transit agencies and developers. Such joint development may represent an excellent opportunity to spur the production of affordable housing near transit." Pollack et al., 2010, p.48	Washington Metropolitan Area Transit Authority (DC) Portland TriMet (OR) Denver Regional Transit District (CO)

Table 9 TRansportation management tools

Table 10. Transportation Management Tools

Policy Tool	Summary	Information	Example
Transit Incentives for Housing Developments	"Transit agencies may be able to increase ridership by residents of transit-rich neighborhoods and transit-oriented developments by selling discounted transit passes to housing developers for distribution to their residents" (Pollack et al., 2010, p.51)	"While many transit authorities offer monthly or annual pass programs to large employers, a few also offer pass programs to residential developments such as apartments, condominiums or homeowner associations. (Pollack et al., 2010, p.51)	Santa Clara Valley Transportation Authority ECO pass program (CA) Pilot TOD Pass Programs in Portland, OR and Contra Costa, CA
Reduced Parking Requirements for Residential Development	"Reducing or eliminating off-street parking requirements for housing developments in transit-rich neighborhoods both helps reduce vehicle ownership and use and makes housing more affordable" Pollack et al., 2010, p.52	In order to reduce vehicle use and housing costs, a handful of cities have moved to reduce or eliminate off-street parking requirements for housing development, particularly in locations well-served by transit and for affordable housing developments whose residents are less likely to own cars." Pollack et al., 2010, p.52	Zoning codes in San Francisco, CA, Portland, OR and Seattle, WA
Unbundling the Price of Parking	"Encouraging or requiring the separate pricing of residential parking, often called unbundling, can reduce demand for parking as well as combined housing/transportation costs for residents." Pollack et al., 2010, p.53	The price of parking can, however, be separated or "unbundled" from that of the housing either if developers and landlords choose to do so or if municipal regulators so require. "Unbundling parking is an essential first step towards getting people to understand the economic cost of parking and providing users with the opportunity to opt out of parking and make alternative travel decisions. Without unbundled parking, tenants experience parking as free, while transit costs them money" (MTC, 2007 at 31 in Pollack et al., 2010, p.53)	San Francisco, CA unbundling requirements Buckman Heights and Buckman Terrace, Portland OR

Antonia Burchard-Levine
 Master Candidate –Urban Management
 Technische Universität Berlin

Policy Tool	Summary	Information	Example
Car Sharing	"The easy availability of shared cars in transit-rich neighborhoods and transit-oriented developments may reduce automobile usage and ownership and allow residential developments to be built with fewer parking spaces" Pollack et al., 2010, p.54	"Several transit-served cities encourage provision of parking spaces for car sharing in residential developments and some even allow the developer to reduce the required amount of parking to be provided for residents." Pollack et al., 2010, p.54	Boston's Proposed Comprehensive Car Sharing Strategy

Source: Self-elaborated based on Pollack et al., (2010)