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## Learning from informal settlements

### the case of Guayaquil

Rasmussen, Maria

2025

*Document Version:*

Publisher's PDF, also known as Version of record

[Link to publication](#)

*Citation for published version (APA):*

Rasmussen, M. (2025). *Learning from informal settlements: the case of Guayaquil*. [Licentiate Thesis, Department of Architecture and Built Environment]. Lund University.

*Total number of authors:*

1

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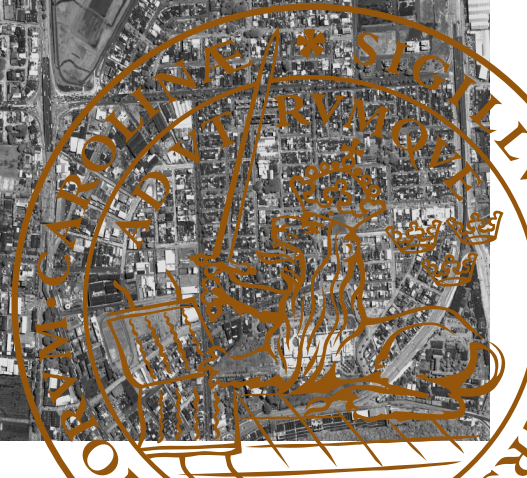


# Learnings from Informal Settlements

## The case of Guayaquil, Ecuador

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# Learnings from Informal Settlements

– The case of Guayaquil, Ecuador

Maria Isabel Santos Rasmussen



**LUND**  
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Licentiate Dissertation

The Department of Architecture and Build Environment  
Faculty of Engineering, LTH  
Lund University  
2025

**Organization:** LUND UNIVERSITY

**Document name:** Licentiate Dissertation

**Date of issue:** 26 August 2025

**Author:** Maria Isabel Santos Rasmussen

**Title and subtitle:** Learnings from Informal Settlements – The case of Guayaquil, Ecuador

**Abstract:**

Informal settlements often appear chaotic, seeming perhaps to have emerged without any planning. Evidence suggests however that many slum areas are in fact the result of organized, structured processes carried out with discipline and precision. Formal and informal settlements coexist parallel to one another without significant interaction, and governments and informal planners rarely understand each other's work. Observations during visits to informal settlements in Guayaquil, Ecuador, revealed that they were arranged in a rational urban pattern with an orthogonal layout, with precise measurements and a certain degree of organization. This fascinating insight sparked curiosity and motivated this study, as it reinforced the idea that informal settlements are not purely chaotic but instead guided by tacit knowledge that could help guide sustainable urban development.

The licentiate dissertation seeks to answer a central question that arose from initial observations regarding how informal settlement planning functions and its consequences for dwellers in terms of quality of life. It also addresses questions such as why informal settlements succeed in providing more housing solutions than the formal sector, how communities organize decision-making and how this is reflected in physical planning, and how informal settlement development occurs in terms of land appropriation, subdivision, housing construction, and the provision of infrastructure and services. Additionally, this study explores what professional urban planners can learn from informal settlements.

Four theoretical concepts have been used both to understand and explain the findings. These are: (i) tacit knowledge, Polanyi's approach; (ii) the practice of everyday life, Certeau's approach; (iii) the production of space, Lefebvre's approach; and (iv) territoriality, Kärholm's approach.

The study highlights the transformative potential of organized communities in urban development. In Guayaquil, informal settlements, driven by accumulated local knowledge and adaptive strategies, play a significant role in housing production, and often produce a larger quantity of housing units than the formal sector. Key findings emphasize the importance of community organization, tacit knowledge, and spatial strategies, which enable these neighbourhoods to evolve incrementally and allow the informal spaces to be transformed into cohesive social and urban territories.

**Key words:** Guayaquil, Informal Settlements, Production of Space, Tacit Knowledge and Territoriality.

**Language:** English

**Number of pages:** 98

**ISBN** 978-91-7740-139-1 (print) 978-91-7740-140-7 (digital)

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# Learnings from Informal Settlements

– The case of Guayaquil, Ecuador

Maria Isabel Santos Rasmussen



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Language editing by Justina Bartoli

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Paper 2 © By the author (Manuscript unpublished)

Paper 3 © Publisher by the author, The Journal of Urbanism, 2013.

Faculty of Engineering, LTH

Department of Architecture and Build Environment

ISBN: 978-91-7740-139-1

Printed in Sweden by Media-Tryck, Lund University

Lund 2025



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# Acknowledgements

I would like to express my deepest gratitude to my thesis advisors, whose guidance, patience, and encouragement over the years have been invaluable to both my academic and personal growth. Your insights and support have shaped the path of this research in countless meaningful ways.

I am especially grateful to the individuals and communities who generously open their homes and shared their time, stories, and lived experiences with me. Your voices are not only present in these pages – they are the essence of this thesis. Thank you for your courage. I hope this work does justice to the realities you so generously allowed me to witness.

A special thank you to the Department of Architecture and Build Environment for supporting the study and for providing the academic environment and resources that made this work possible.

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## Learnings from Informal Settlements – The Case of Guayaquil

### ***Preamble***

*When walking through different informal human settlements in neighbourhoods in Latin American cities such as Bogotá, Guayaquil, La Paz, or Medellín, one may note that, despite an apparent cultural homogeneity, the neighbourhoods have very different characteristics. Speaking to residents and observing their streets reveals that some of these neighbourhoods appear to have better qualities and perform better than others. When I first encountered this, I found that my professional background could offer no easy answers to why this is the case, nor could it offer explanations as to how informal neighbourhoods could create housing for so many families while the formal sector struggles to achieve similar success. Through discussions with colleagues, it became obvious that intuitive observations and comparisons of experiences helped us to perceive certain patterns of design and urban planning in settlements that had not been designed by urban planners. This in turn aroused the need to learn about this other way of building a city.*

# 1. Introduction

*Cities contain both order and chaos. In them reside beauty and ugliness, virtue, and vice [...] Cities are the materialization of humanity's noble ideas, ambitions, and aspiration but when not planned or governed properly, can be the repository of society's ills.*

*UN-Habitat, State of the World's Cities 2008-2009*

Urbanization has been very strong since the mid-20th century, and 55 per cent of the world's population was living in urban areas in November 2022 (UN-Habitat SDG, 2023, p.34). In 2022, 1.6 billion people, or 20% of the global population, were living in inadequate housing; of these, one billion individuals were residing in informal settlements or slums (UN-Habitat World Cities Report, 2022, p.19), characterized by substandard housing and an absence of land rights. Although the proportion of the urban population living in slums declined slightly between 2014 and 2020, from 25.4% to 24.2%, the total number of slum dwellers continues to rise with increasing urbanization; according to projections, an additional 2 billion people will be living in such settlements in 30 years. (UN-Habitat SDG, 2023, p.34). In some cases, more than 50% of the urban growth in developing countries has been driven by the informal sector. The development process of these settlements seems to follow an irrational pattern, making legalization and consolidation extremely expensive. This process is lengthy and may take several decades.

When the field study for this investigation concluded around 2014, around 30% of city dwellers were living in slums, i.e., one in eight persons across the globe were living in informal settlements (UN-Habitat, 2015). In many cities in developing countries, the urban population consists of more than 50% informal or illegal residents (e.g. 60% in Guayaquil, 80% in Lima, 75% in Dar es Salaam) (UN-Habitat 2016).

The World Cities Report 2016 from UN-Habitat states that the 'slum challenge continues to be one of the faces of poverty'. According to the report, 'slums are the product of failed policies, poor governance, corruption, inappropriate regulation, dysfunctional land markets, unresponsive financial system and lack of political will (UN-Habitat, 2016, p.57), but there have nonetheless also been positive changes: 320 million have been brought out of informal settlements, and some actions appear to be key in the pursuit of poverty reduction, such as new partnerships and long-

term participatory planning, as well as co-creation of new forms of knowledge. The report asserts that broad interdisciplinary knowledge is still needed (UN-Habitat 2016).

Formal and informal settlements coexist parallel to one another, without interacting, and governments and informal planners rarely understand each other's work. This study aims to learn from informal city formation, and the knowledge it generates has the potential to guide sustainable urban development for developing countries.

Urban planners, architects and technicians working in the production of sustainable and effective modern cities possess knowledge on optimizing urban land use, facilitating social cohesion and creating harmonious 'formal cities. There is limited knowledge and a lack of understanding of the 'informal cities', that is, the informal settlements that are built outside the law through the citizens' own efforts. These informal settlements often give a chaotic impression, and it may seem that they have arisen completely unplanned. However, evidence suggests that many slum areas are in fact the result of organized and planned processes characterized by precision and discipline.

Urban planning professionals working in developing countries need to develop tools to bridge the gap between formal and informal cities. Understanding the logic and virtues behind slum formation and everyday life will render us more able to carry out more sustainable neighbourhood interventions.

## 1.1. Purpose of the Study

This research project takes informal settlements in the city of Guayaquil in Ecuador and the city of Dar es Salaam in Tanzania as a starting point. Only the case of Guayaquil is formally presented in this licentiate dissertation, and studies and experiences extracted from informal settlements in Dar es Salaam are used as comparative references to some extent.

The purpose of the study is to understand and learn from informal city formation and offer reflections on aspects to take into consideration when planning settlements of formal character. The findings presented are predominantly from the Guayaquil case.

## 1.2. Research Questions

Overall, the study aims to investigate:

- How does informal settlement planning work, and what are the consequences for dwellers regarding quality of life?

More specifically, I seek to answer this by looking into four questions:

- Why do informal entrepreneurs succeed in delivering more homes than their formal counterparts?
- How is the community organized regarding decision-making at the settlement level, and how is this reflected in the physical planning?
- How is informal settlement development carried out in terms of land appropriation, land subdivision, housing development, and provision of infrastructure and services in the informal settlements?
- What can we as professional urban planners learn from informal settlements?

## 1.3. Introduction to the Neighbourhood in Focus

This licentiate dissertation centres on two cases in the city of Guayaquil, Ecuador and one in the city of Dar es Salaam, Tanzania. Its primary focus is on the Guayaquil neighbourhood called Sergio Toral.



*Figure 1. View of the neighbourhood Sergio Toral.*

Sergio Toral (figure 1) is situated on former agricultural land on the municipality's northwestern urban periphery. The neighbourhood was carefully planned as an orthogonal settlement by the new owners, the land dealers, and in consultation with professionals, although it was not approved by the municipality's urban planners and it was built without the authorities' knowledge. As the municipal boundary transects the area, the neighbourhood is partially situated on urban land and partly on non-urban land. The neighbourhood is managed as an entity called a pre-cooperative; this entails that the dwellers are members, and they themselves perform the majority of the construction labour for the neighbourhood, working within an organisational structure. The neighbourhood was chosen as a case study from among many others for several reasons, and particularly because residents and various leaders of informal neighbourhoods alike reported that Sergio Toral performed better than other informal settlements in the city.

A plot of land measuring 15m<sup>2</sup> x 8m<sup>2</sup> without services at Sergio Toral costs 1 000 USD, and the prefabricated bamboo house usually constructed on these plots costs 1 000 USD. The municipality of Guayaquil's formal low-income housing programmes 'Mucho Lote' and 'Mi Lote' delivered plots of land of 12m<sup>2</sup> x 6m<sup>2</sup> in 2014 for a minimum price of 2 000 USD, and houses made with concrete blocks cost at least 10 000 USD. The minimum monthly salary in the formal sector in Guayaquil is 220 USD; according to a rough calculation, a minimum monthly income of 150 USD is necessary in Sergio Toral.

Credit facilities established within the 'pre-cooperative' framework make it possible for poor families to afford these homes. The first home of the new dwellers is usually a prefabricated bamboo house, produced by the non-governmental organization Hogar de Cristo. The prefabricated house components are delivered for a two-floor unit and are usually assembled by the dwellers themselves. This is generally the first step that a family takes to physically occupy the lot; it is common for bamboo houses to be later replaced by more durable structures made of hollow concrete blocks.

It is important to clarify that Sergio Toral encompasses three distinct phases. Phase I was already formalized when this study commenced, and it had thus already become a formal neighbourhood. Consequently, the study focuses on Phase II, which is currently undergoing the process of neighbourhood development. Phase III was at an early stage of land occupation when the investigation commenced in 2010. Consequently, observations of this phase made a substantial contribution to the study. The area was subsequently dismantled a few years later (see Paper I).

## 1.4. List of Papers

This licentiate dissertation includes two articles (one published and one in the process of publication) based on fieldwork research carried out in informal settlements in Guayaquil between 2011 and 2015. In addition, a paper based on fieldwork research in informal settlements in Dar es Salaam carried out between 2012 and 2015 will be included as a reference.

- Paper I: ‘Informal but Planned Settlements – A case in Guayaquil’. Published in CIB – International Council for Research and Innovation in Building and Construction, 2011.
- Paper II: ‘The Role of Tactical Practice and Tacit Knowledge in Informal Neighbourhood Formation – Two cases in Guayaquil, Ecuador’ (forthcoming).
- Paper III: ‘The Power of Informal Settlements – The Case of Dar Es Salaam, Tanzania’. Published in Planum – The Journal of Urbanism, 2013.

## 2. Informal Settlements

This chapter presents definitions of *Global South* and *Informal Settlements* to establish a common understanding of the study's focus. By clarifying these key concepts, the chapter aims to provide a foundational framework for examining the complexities of urban development that shape the contexts and challenges of these regions. This clarification is essential for avoiding bias and ensuring a nuanced and accurate analysis.

### 2.1. Research Area

#### **The Concept of the Global South**

In this publication, the term Global South refers to low- or middle-income countries in Africa, Latin America and the Caribbean, Asia without Israel, Japan, and the Republic of Korea, and Oceania without Australia and New Zealand, as defined by the United Nations Conference on Trade and Development. The term Global South is a multifaceted concept that encompasses geography, geopolitics, history, and development, and it will be used here in lieu of 'developing countries' or 'third world', which imply a one-dimensional path of progress towards becoming 'developed countries'. In contrast, Global South acknowledges diverse development trajectories and highlights the region's resistance to neoliberal capitalism. It is also often associated with a shared heritage of recent colonial histories in the global peripheries (Miraftab et al., 2015).

Use of the term Global South has increased steadily since the 1990s, although it remains contested. Its meaning varies depending on the user and context and may be political, economic, geographical, or social. The term is often used as a metaphor for underdevelopment and as a substitute for third world, replacing the binary developing versus industrialized states. In *The Poorer Nations: A Possible History of the Global South*, Vijay Prashad describes the Global South as a political project aimed at overcoming the common experiences of imperialism (Prys-Hansen, 2023). States that identify as part of the Global South share common values and have formed institutions to pursue collective goals, emphasizing the development of an alternative world order. Following Alfred López (in Prys-Hansen, 2023), the Global South is also used as a term of empowerment, signifying mutual recognition among

the world's subaltern populations and their shared marginalization in the neoliberal global order. In a social context, the concept represents a transnational countermovement of resistance to capitalist globalization, understood more as 'a process and practice through which new forms of knowledge production are created, and existing forms of the reproduction of inequalities and epistemic racism are broken up' (Prys-Hansen, 2023).

Acknowledging the biases associated with the term Global South, this licentiate dissertation uses the term from a social context perspective, emphasizing its connotation as part of an ongoing process with the potential to develop new and independent knowledge.

The studied cases are located in countries classified as countries in development, with economical disadvantages, a shared history of colonialization, and unstable democracies. In the two primary cities studied, Guayaquil and Dar es Salaam, more than 70% of the population lives in informal settlements (INEC, 2015; Delgado, 2016; UN-Habitat, 2008; Tanzania Cities Network 2014, and Cities Alliance 2014).

## **The Concept of Informal Settlements**

The concept of informal settlements has been widely recognized in Latin America since the early 1970s, which was a period marked by rapid urbanization and inadequate housing policies that led to the emergence of self-built, often unregulated communities on the peripheries of major cities. Several scholars from diverse academic backgrounds have contributed to understanding of these settlements and offered unique perspectives on their formation and implications. Notably, architect John Turner emphasized the role of self-help housing and community participation in the creation of informal settlements, advocating an approach that integrated informal urbanization into formal city planning. Similarly, urban planner Ronaldo Ramirez analysed the complex social, economic, and political dynamics that shape informal neighbourhoods in Latin America. Alan Gilbert, an economist and geographer, examined the socioeconomic conditions of informal settlements, emphasizing the resilience and resourcefulness of their residents. Ramirez and Gilbert collaborated on research in Latin America, exploring these dynamics and highlighting the significance of self-built, unregulated communities in rapidly urbanizing cities (Ramirez et al., 1982). Additionally, anthropologist Keith Hart introduced the term 'informal economy' in his groundbreaking work on economic activities outside the formal sector, providing further context for understanding how informal settlements operate within broader urban economies (Hart, 1973). These and many other authors laid the groundwork for understanding informal settlements as dynamic, self-organized, and often vital components of rapidly urbanizing regions.

In 2003, UN-Habitat published the *Global Report on Human Settlements 2003*, in which slums are defined as ‘the places where poor people struggle to make a living and bring up their families, and the places where about one third of the world’s urban population live’ (UN-Habitat, 2003). The report pointed to the importance of these settlements as the only large-scale solutions for providing housing for low-income individuals and the only affordable and accessible option for the poor. The report was intended as a call to action for governments, policymakers, and international organizations to address the challenges of slum formation and to prioritize efforts to improve the living conditions of slum dwellers. Despite these calls, efforts to improve the living conditions of slum dwellers (especially in the Global South) have been feeble and incoherent over the last decade or so, having peaked in the 1980s.

The terms ‘informal human settlement’ or ‘slum’ are often used in academic and government documents to refer to improvised and substandard neighbourhoods occupied by the poor. There are regional variants of the term, such as ‘conventillos’ in Bolivia, ‘favelas’ in Brazil, ‘shacks’ in Kenya, ‘shantytowns’ in Pakistan, ‘squatter settlements’ in South Africa, ‘unplanned settlements’ in Tanzania, or ‘tugurios’ in Colombia. The word slum is often used to describe informal settlements in cities with inadequate housing and squalid, miserable living conditions. These settlements are typically overcrowded, with many people crammed into very small living spaces.

The United Nations Human Settlements Programme UN-Habitat defines a slum as ‘a contiguous settlement that lacks one or more of the following five conditions: access to clean water, access to improved sanitation, sufficient living area that is not overcrowded, durable housing, and secure tenure’ (UN-Habitat, 2003). Moreover, according to UN-Habitat, ‘slums are the products of failed policies, poor governance, corruption, inappropriate regulation, dysfunctional land markets, unresponsive financial systems, and lack of political will’ (UN-Habitat, 2016). The global partnership Cities Alliance adds that ‘slums are neglected parts of cities where housing and living conditions are appallingly poor. Slums range from high-density, squalid central city tenements to spontaneous squatter settlements without legal recognition or rights, sprawling at the edge of cities’ (Cities Alliance Action Plan, 1999).

‘The Challenge of Slums: Global Report on Human Settlements’ (2003) presents the results of the first global assessment of slums by the United Nations since the adoption of the Millennium Declaration. The report proposes an operational definition of slums. In its simplest definition, a slum is ‘a heavily populated urban area characterized by substandard housing and squalor’ (UN-Habitat, 2003, p.8).

This definition includes the essential characteristics of slums: high density, low standards of housing (structure and services), and populated by people living in poverty. The first two criteria are physical and spatial; the third is social and

behavioural. The reports divide slums according to future development into ‘slums of hope’, the progressive settlements characterized by new, usually self-built structures that are often illegal and are undergoing or have recently undergone a process of development, consolidation, and improvement; and ‘slums of despair’, the declining neighbourhoods where environmental conditions and domestic services are in a process of degeneration (UN-Habitat, 2003). Sergio Toral in Guayaquil could be classified as a slum of hope, since it is a new neighbourhood on non-urbanized land that hopes to develop into consolidated homes and a formal neighbourhood.

Many documents seem to use the terms informal settlement and slum interchangeably. For some authors however, informal settlements and slums are not synonymous. The term slum usually refers to inner-city residential areas that have become increasingly physically dilapidated and overcrowded and become the primary residential zone for the lowest income groups, whilst ‘informal settlement’ usually refers to illegal or semi-legal urbanization processes or unsanctioned subdivisions of land where illegal land appropriation and development took place without formal permission. Dovey’s *Atlas of Informal Settlements: Understanding Self-Organized Urban Design* distinguishes between the terms, where informality refers to a mode of production, whereas slum denotes a particular urban condition (Dovey, 2023, p.15). Several authors have also used the term informal settlements as a euphemism for slums (Dovey, 2020; et al., 2021, Moser, 2009; Brillembourg et al., 2005).

In this investigation, I use the term informal settlement rather than slum, as slum connotes more spontaneous and unplanned settlements. In this investigation, informal settlements should be understood as a ‘mode of production – a form of architecture and urban design that shapes the infrastructure of these neighbourhoods... defined as the incremental, unauthorized, and self-organized production of new urban neighbourhoods’ (Dovey et al., 2023, pp.13-16). Recognizing that the term informal settlement is contested and considering that this characteristic has been observed and studied in the selected case, with its informal organization and rules framed in its own logic of neighbourhood production. These general definitions of informal human settlements are well suited for the Guayaquil case; however, some unique characteristics of the Sergio Toral neighbourhood will complement this specific definition.

## **The Research Milieu**

Epistemologically, this research is framed within a constructivist paradigm (Guba et al., 1994; Law, 2004), where knowledge is seen as constructed through the researcher’s empirical work, perceptions, and interpretations, rather than merely discovered. As Law explains, ‘construction usually implies that objects start without fixed identities but that these converge and gradually become stabilized as singular

through practice, negotiation, and/or controversy.’ (Law, 2004, p.158). The methodology emphasizes credibility by integrating multiple sources and the researcher’s personal experiences. This approach aligns with Stake’s view that ‘the human construction of knowledge begins with sensory experiences of external stimuli’ (Stake, 1995, p.100). Additionally, considering the relativist nature of interpretations, the practical judgment and prudence advocated by Flyvbjerg in phronetic or practical wisdom are taken into account. The case studies illustrate that community wisdom plays a crucial role in the development of informal settlements.

The research also employs a hermeneutic approach, using interpretations to acquire knowledge by referring to ‘being in the world’ and understanding the existential conditions of human life. Consequently, the knowledge has characteristics of situatedness and temporality. As Heidegger (1962, original version) states, there is always pre-existing knowledge or pre-understanding, and the research is invariably influenced by the interpreter’s background and experiences (Heidegger, 1962).

Conducting this interpretive research has allowed me as the researcher the freedom to explore the phenomenon of informal settlements, as well as the biases this may entail.

The study has two main objectives: first, to understand the phenomenon via various perspectives, and second, to transmit the acquired knowledge. Although authored by a single researcher, the study aims to highlight the voices of its informants and acknowledge those who contributed to the research. In this regard, it can also be considered transdisciplinary research, which Pohl and Hirsch Hadorn define as ‘as a form of coordinated and integration-oriented collaboration between researchers from different disciplines’ (Hadorn et al., 2008, p.428). In transdisciplinary research, dealing with problem fields entails that one must: ‘(a) grasp the complexity of problems, (b) take into account the diversity of life-world and scientific perceptions of problems, (c) link abstract and case-specific knowledge, and (d) develop knowledge and practices that promote what is perceived’ (Hadorn et al., 2008, p.431).

Research on informal settlements focuses on several key characteristics: the complexity of housing and neighbourhood provision, the diversity of lives in cities of the Global South, the tacit knowledge embedded in the informality of the settlements, and the potential benefits this new knowledge may offer to urban studies. According to Pohl and Hirsch Hadorn, transdisciplinary research is needed ‘when knowledge about a societally relevant problem field is uncertain, when the concrete nature of problems is disputed, and when there is a great deal at stake for those concerned by problems [...]’ (Hadorn et al., 2008, p.431-432).

Julie Thompson Klein defines transdisciplinarity as ‘[a] practice-oriented approach, [...] not confined to a closed circle of scientific experts, professional journals and academic departments where knowledge is produced [...] Through mutual learning, the knowledge of all participants is enhanced, including local knowledge, scientific

knowledge ...' (in Doucet et al., 2011, p.4). The research on informal settlements in hand is a practice-oriented study, and it has shown that the knowledge among the different actors is very diverse, specifically in the case of Guayaquil. Within the formal sector, international organizations such as the UN/UN-Habitat, NGOs, and the World Bank, as well as regional NGOs such as *Un Techo Para Mi Pais* (A Roof for My Country) and local NGOs like *Hogar de Cristo*, share knowledge with government authorities and academia. Within the informal sector however, the knowledge developed through everyday practice by the dwellers and neighbourhood leaders is not really included in the knowledge production regarding informal settlements in the city.

This research has identified the community as a key actor that plays a crucial role in the development and dynamics of informal settlements. The roles of informality and illegality have also been highlighted as significant factors. The adaptability of the informal sector and the resourcefulness of the community demonstrate the importance of these elements in shaping the everyday lives and resilience of the residents. This research underscores the need to recognize and incorporate the contributions of these informal practices and the community's knowledge into broader discussions and strategies for urban development.

The transdisciplinary attitude in this research is thus deeply rooted in the complexity of the context. It involves integrating a wide range of actors, each of whom represents polarized and frequently controversial perspectives. Doing this addresses the multifaceted nature of the issues at hand whilst also emphasizing the importance of including diverse viewpoints and considering the various dimensions and tensions present in the city's housing supply.

The research has been inspired by theories of hybridizations proposed by Dogan. In his publication 'The Hybridization of Social Science Knowledge', Dogan asserts that knowledge is obtained by borrowing and lending concepts, methods, theories, and praxis, and points out that '[t]he fruitful point of contact is established between sectors and not along disciplinary boundaries. The hybrid specialties do not necessarily stand midway between two sovereign disciplines. They may be enclaves of a section of a discipline into a sector of another discipline. They combine two limited domains'. (Dogan, 1996, p. 296-314).

This research examines informal settlement phenomena through the lens of academic knowledge from various disciplines, including urban studies, social geography, and theories related to knowledge. The goal is to provide a comprehensive understanding of these phenomena and effectively communicate insights framed within these disciplines, whilst also spreading knowledge across both formal and informal sectors.

Several studies on informal settlements describe informal settlement phenomena from a critical, descriptive perspective, often focusing on issues such as poverty, marginalization, insecurity, environmental degradation, and a lack of governance.

Some scholars view informal settlements as manifestations of global inequality and urban dystopias, framing them as spaces of extreme poverty, disease, and exploitation that are often controlled by criminal organizations, which results in a ‘surplus humanity’ with little hope for social mobility. Others describe informal settlements as ghettos or urban peripheries that reinforce social exclusion and perpetuate cycles of poverty. These areas are often stigmatized as fragmented, segregated urban spaces that lead to crime, and violence.

In my research, which aims to understand and learn from informal settlements, I have adopted a more constructive perspective, exploring the spatial logic involved in the production of neighbourhoods and examining the social dynamics within informal settlements with a particular focus on how they function as complex organizational communities and enable adaptability.

John F C Turner’s research on informal settlements in Lima, Peru made a pivotal contribution (Turner, 1976). He argued that informal settlements are not problems, but solutions that provide affordable housing and allow residents to shape their own environments. Turner highlighted the incremental and self-organized nature of these settlements, emphasizing the community’s ability to innovate and adapt through community-driven solutions.

In *City of Walls: Crime, Segregation, and Citizenship in São Paulo*, Teresa Caldeira refers to informal settlements, or favelas, as ‘fortified enclaves’. She describes the emergence of privatized, enclosed, and monitored spaces that segregate the affluent from the urban poor and argues that this spatial segregation both reflects and exacerbates perceptions of crime and insecurity, perpetuating poverty. Her work sheds light on the complexities of urban informality and marginality and emphasizes how the interplay of spatial configurations and social dynamics shapes contemporary urban experiences. (Caldeira, 2000, pp.183–184).

Other authors have focused on the economic advantages of informality. In his book *The Mystery of Capital* (2000), De Soto describes informal settlements as economic engines that represent untapped capital and entrepreneurial potential, arguing that granting land titles to informal settlers can unlock economic growth. According to De Soto, because the rights to these possessions are not adequately documented, ‘these assets cannot readily be turned into capital, cannot be traded outside of narrow local circles where people know and trust each other, cannot be used as collateral for a loan, and cannot be used as a share against an investment’ (De Soto, 2000, p.5). However, his narrow solution of land titling has been criticized for disregarding that housing and informal settlements are more complex phenomena.

With her longitudinal studies in Brazil, Janice Perlman emphasizes the economic activity of informal settlers, highlighting their role as engaged citizens who contribute to the entire city’s economy and culture. Her works, *The Myth of Marginality: Urban Poverty and Politics in Rio de Janeiro* (1976) and *Favela: Four Decades of Living on the Edge in Rio de Janeiro* (2010), provide a longitudinal

perspective on the lives of favela residents. Similarly, in *Squatter Citizen: Life in the Urban Third World* (1989), Jorge E Hardoy and David Satterthwaite focus on the living conditions, struggles, and resilience of people in informal settlements across the Global South. They challenge mainstream narratives that portray informal settlers as passive victims, instead emphasizing the settlers' active role in shaping cities through self-built housing and community organization. In *Urban Poverty in the Global South: Scale and Nature* (2012), Satterthwaite and Diana Mitlin further explore community-driven solutions to issues in informal settlements.

Ananya Roy and Kim Dovey both approach informal settlements from the perspective of their dwellers' adaptive qualities. In the book *Urban Informality: Transnational Perspectives from the Middle East, Latin America, and South Asia* (Roy et al., 2004), Roy argues that 'urban informality is too often either demonized as the virus that must be removed or romanticized as the plight of the poor. There is nothing essentially good or bad about urban informality' (Roy, 2004, p.159). For Roy, informality is a mode of urban governance that exists between legality and illegality; she emphasizes that informality is not simply a bottom-up phenomenon but also a top-down process, and that governments selectively tolerate or criminalize informal practices based on political and economic interests. In this view, urban informality is a form of state-produced governance.

Kim Dovey, on the other hand, highlights the virtues of informal settlements, focusing on their resilience, adaptability, and contributions to urban development. He argues that informal settlements function as complex adaptive systems, with self-organization that allows them to adapt and thrive despite challenging conditions. Dovey emphasizes that informal settlements are not merely chaotic spaces but are characterized by a dynamic order that emerges from the interactions of various elements within the community. He underscores the resilience of these settlements and their ability to contribute to the overall urban fabric through adaptive and innovative practices. Longitudinal studies of informal settlements in different cities around the world, such as those in the *Atlas of Informal Settlement: Understanding Self-Organized Urban Design* (Dovey et al., 2023), demonstrate this adaptability.

## 2.2. Four Theoretical Concepts Framing the Study

### (i) Tacit Knowledge

Aristotle formulated three forms of knowledge: episteme (theoretical-scientific knowledge); techne (practical-productive knowledge, including technique, craft, and art, and connected with tacit knowledge), and phronesis (practical wisdom, ethically rooted and interpretive). These concepts correspond to the original Aristotelian ideas of 'theoria' (philosophical activity), 'poiesis' (creating products), and 'praxis' (human actions aimed at making a good life), (Gustavsson, 2002).

In the research conducted in Guayaquil, the focus is on *techne*, or practical-productive knowledge, as it relates to the formation of neighbourhoods through praxis. Here, particular attention is given to tacit knowledge. Other forms of knowledge, such as practical wisdom (*phronesis*), are also present and of interest in this context.

In his 1958 book *Personal Knowledge*, Michael Polanyi defines tacit knowledge as the kind of knowledge that is difficult to transfer to another person by means of writing it down or verbalizing it. He states that there is knowledge that cannot be adequately articulated verbally, and that all knowledge is rooted in tacit knowledge. In *The Tacit Dimension* (1966), he argues that much of our understanding and skills are acquired implicitly and cannot be fully articulated, emphasizing the idea that 'we can know more than we can tell' (Polanyi, 1966, p.4).

According to Polanyi, tacit knowledge includes skills, habits, and intuition that we acquire through practice and experience (Polanyi, 1966, p.49-53). Polanyi describes the process of acquiring skills through practice, emphasizing the tacit component of skill acquisition and maintaining that much of what we know is not explicitly stated but instead demonstrated through action. When one walks through the informal settlements studied in Guayaquil and engages with the inhabitants, one senses a unique way of 'doing things', a practical knowledge that differs significantly from knowledge about formal neighbourhoods.

The research initially focused on the skills, habits, and performance within the neighbourhood in study; the knowledge was first perceived intuitively and later studied and analysed, and it eventually became knowledge of the sort that can be verbalized and communicated effectively. The researcher acknowledges that not all tacit knowledge can be verbalized.

In this context, tacit knowledge can transform implicit knowledge into explicit knowledge. The verbalized knowledge consists of strategies and tactics drawn from two case studies in Guayaquil. These studies demonstrate accumulated and inherited tacit knowledge, where practices and experiences from one neighbourhood are applied and developed in other neighbourhoods, leading to improved overall neighbourhood performance. Additionally, some of the extracted knowledge addresses questions about how informal settlements are produced and who produces them (see Paper II: 'The Role of Tactical Practice and Tacit Knowledge in Informal Neighbourhood Formation – Two cases in Guayaquil, Ecuador' by the author, forthcoming).

My approach to tacit knowledge aligns well with Bernt Gustavsson's description of tacit knowledge as the unsayable in his essay, 'The Many Faces of Knowledge'. According to Gustavsson, 'knowledge which exists on the basis of a long-term intimacy in the occupation, the tacit, can meet the knowledge produced in research, knowledge based upon assertions, and this leads to a development of knowledge in the practical occupation.' (Gustavsson, 2002, p.7)



Figure 2. Telephone booths with internet access. Organized by neighbourhood leaders, these provide job opportunities for neighbourhood residents.

## (ii) Theory of practice of everyday life

The practice of the everyday life studied in the neighbourhoods draws on explicit and rational as well as unconscious and not-rational processes. Following Michel de Certeau, ‘everyday practice depends on a vast ensemble which is difficult to delimit but which we may provisionally designate as an ensemble of procedures.’ (Certeau, 1984, p 43)

The architect and supervisor of the urban renewal programme for the neighbourhood Nigeria in Guayaquil municipality describes how the construction of the bridges in this neighbourhood, built in the estuary of the Guayas River, was a result of the practice of everyday life. In time, it also became a strategy to cope with ongoing production and reproduction in the neighbourhood. The bridges needed to be built and repaired, the work needed to be planned in relation to the sea and the river tides, and financing and labour needed to be organized within the community (see Paper II).

These shared needs and survival measures related to natural disasters such as flooding force the dwellers in the neighbourhood to work together, to associate and cooperate for the benefit of the common good. The community thus developed a series of tactics and strategies to collectively handle the situation. Certeau defines a tactic as ‘a calculated action determined by the absence of a proper locus [...] The space of a tactic is the space of the other’, and adds that a tactic ‘does not, therefore, have the options of planning general strategy and viewing the adversary as a whole within a distinct, visible, and objectifiable space... It takes advantage of “opportunities” and depends on them’ (Certeau, 1984, p.37).

In the absence of proper infrastructure, informal dwellers must use tactics as a way to navigate their daily realities. They understand that they depend on each other whilst also managing strained relations with the natural conditions of the territory they occupy. They have no alternative housing options in the city's formal housing market, and instead search for opportunities and hope for a better life in the city, and land dealers sell them this dream. They begin to address and solve everyday challenges within a community, living in a neighbourhood where infrastructure is sparse. The practice of everyday life teaches them to take initiative and create solutions, often without prior planning, at least in the beginning. The tactics in the cases studied are thus usually developed by the dwellers themselves – the weaker party. As Certeau expresses it, 'a tactic is an art of the weak' (Certeau, 1984, p37).

Where there are tactics, there are also always strategies. Michel de Certeau defines strategy as 'the calculation (or manipulation) of power relationships that becomes possible as soon as a subject with will and power (a business, an army, a city, a scientific institution) can be isolated.' (Certeau, 1984, p.35). In the neighbourhoods studied, the relationship between land dealers and dwellers has been complex and intertwined. The land dealers, who illegally trade in territories, act as subjects with will and power. Certeau adds that a strategy 'postulates a place that can be delimited as its own and serve as the base from which relations with an exteriority composed of targets or threats (customers or competitors, enemies, the country surrounding the city, objectives and objects of research, etc.) can be managed. Political, economic, and scientific rationality has been constructed on this strategic model' (Certeau, 1984, pp.35-36).

Using land 'possession documents' created within their own system, land dealers designate a territory as their own. Both the dwellers, the territory, and the neighbourhood itself become a base for engaging with external infrastructure businesses, such as water and energy suppliers, as well as for 'dialogues' with local authorities. This dynamic threatens both formal and informal systems.

Activities for neighbourhood production in the neighbourhood Nigeria are good examples of how tactics and strategies develop. In an interview in 2014, a municipal architect working on Nigeria illustrated the interrelation between tactics and strategies, stating: 'The bridge is more a matter of common sense; there was a need to cross over the water! They, the community, built and repaired it together... but somebody needs to organize them.' It was important to come up with a specific strategy and form new power relations, he explained: '[The organizer] asks for the money, he buys materials. That is how a leader is born!'<sup>1</sup> (See Paper II).

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<sup>1</sup> This and all interviews have been freely translated by the author.



Figure 3. The neighbourhood Nigeria, with bridges made by the dwellers.

Tactics within the neighbourhoods are not only a matter for the dwellers; they have also been developed by the leaders. For example, when facing political difficulties with local authorities, the leader employs a combination of tactics and strategies. The illegal dwellers hold demonstrations in the streets that sometimes result in violent conflicts with the owners of the land and the local authorities who try to protect the public space. The leaders also engage in dialogues with the municipality authorities as intermediaries to try to resolve conflicts. As the leaders gradually understood the potential of a desperate community, the tactic became a political strategy, a tool to push forward the development and transformation of illegal and rural land into a formal neighbourhood. As one leader puts it:

*I became interested in living in the neighbourhood because the residents sought me out and were looking for advice and protection because the landowners were trying to get them out. There were only a few of them and they were getting them out, taking their belongings and everything in their houses. It was violent! Very violent. That encouraged us to create a group of legal practitioners to give them protection and legal advice. We sought political contacts and all the things to solve the problem.*

*(Interview with a leader of an informal settlement, Guayaquil, 2011)*

Other examples of strategic development include when leaders establish agreements with municipal authorities in which e.g. land occupation may be continued in exchange for the promise of votes for specific local government parties around elections, or when negotiating with the municipality to build roads in the informal neighbourhood; these 'benefits' are essentially paid for with votes.

*The tool to achieve influence and change things is through the mobilization of people... and we take advantage of the political issue, and yes, of course I know a lot about politics, internal politics [smiles] and we have to take advantage [of that] because when they need it, we are where they want us, because it is the only way for them to recognize us.*

*(Interview with a leader of an informal settlement, Guayaquil, 2011)*

Certeau discusses the act of walking in the city as a practice of everyday life, offering a complementary perspective to the two-dimensional representations found on traditional maps. He highlights the tension between the controlled, abstract representation of the city by authorities and the lived, dynamic experience of the city's inhabitants, emphasizing the creative and resistant nature of everyday practices like walking (Certeau, 1984, pp.99-113). This research on informal settlements focuses on the practice of everyday life, particularly on the act of producing neighbourhood spaces through informal means. In this sense, it follows Certeau's recommendation to return to this practice when studying cities, as they are complex. In contrast to the geometrical city of official discourse and institutional representation, the informal settlement is a space of improvisation of tactics and strategies, with subversive practices that are constantly being reinvented, or as Certeau phrases it: '[...] far from been regulated or eliminated by panoptic administration, [the plural practices] have reinforced themselves in a proliferating illegitimacy, developed and insinuated themselves into the networks of surveillance, and combined in accord with unreadable but stable tactics to the point of constituting everyday regulations and surreptitious creativities that are merely concealed by the frantic mechanisms and discourses of the observational organization.' (Certeau, 1984, p.96).

### **(iii) Production of space**

Space, time, and energy have significantly influenced the development of the informal settlements studied. These elements are not merely passive background factors; they are active forces that shape the lived experiences and socio-spatial dynamics within these communities. In the framework of Henri Lefebvre's theories on the production of space, these concepts are interpreted as interrelated factors that co-construct the physical and social landscape of these settlements.

Following Lefebvre's perspective reveals how space is actively produced through social practices, temporal rhythms, and the energy invested by individuals and communities, reflecting a dynamic interaction between physical form and human agency in informal urban spaces. In *The Production of Space*, Lefebvre writes briefly about the unknown or ill-understood informal settlements and the order thereof, arguing specifically that 'the vast shanty towns of Latin America manifest a social life far more intense than the bourgeois districts of the cities. [...] these districts sometimes so effectively order their space – houses, walls, public spaces – as to elicit a nervous admiration. "Appropriation" of a remarkably high order is to be found here' (Lefebvre, 1991, p.373). Initial observations and further studies of Sergio Toral revealed a kind of order, with elaborate rules and organization, as well as a special understanding of the space in the neighbourhood.

In *The Production of Space*, Lefebvre argues that '(social) space is a (social) product' (Lefebvre, 1991, p.30-32), and that 'social space contains – and assigns appropriate places to – (1) the social relations of reproduction, i.e., bio-physiological relations ... and (2) the relations of production, i.e., the division of labour and its organization in the form of hierarchical social functions'. The informal settlements in the studied neighbourhoods are social spaces for low-income communities, created in response to a housing need among families who lack other alternatives in the city. The municipal housing projects on offer are inaccessible to families in this socioeconomic group, and they do not satisfy the demands of the city's housing market. The settlements studied are areas with limited or challenging connections to the rest of the city, often due to physical distance, economic, and cultural segregation, and must thus develop homes as reproductive spaces as well as social spaces in which the community can interact and neighbourhoods where productive activities can occur. The common laundries in Sergio Toral are a clear example of this type of spatial production. According to Lefebvre, '(Social) space is not a thing among other things, nor a product among other products: rather, it subsumes thing produced and encompasses their interrelationships in their coexistence and simultaneity – their relative order and /or relative disorder' (Lefebvre, 1991, p.73). Similarly, laundries facilitate performance of a domestic activity, and they are also a tangible representation of the changing relationships between the municipality, land dealers, community leaders and dwellers. When the interrelationships are good, this civil facility gives harmonic life to the neighbourhoods, and when the interrelationships are at odds, they become images of injustice and the misuse of power.



Figure 4. Laundry facility, Sergio Toral.

As a civil facility established by the neighbourhood leaders, the laundries are an interesting symbol of power for both the leaders and the residents. These spaces have become community hubs for social interaction and leisure, particularly for women. However, leaders have also used laundries as a means of control, always changing them. In turn, dwellers have occasionally expressed their dissatisfaction with the leaders, sometimes going so far as to destroy the water pipes in protest.

*Public laundries are used more on weekends, but they operate all week. We have had to hire a security guard because there are people who do not look after them, they leave the taps open and sometimes they damage the laundries*

*(Interview with the neighbourhood secretary of Sergio Toral, 2011)*

Lefebvre writes that urban space ‘continues to ensure that links are properly maintained between the various flows involved: flows of energy and labour, of commodities and capital’ (Lefebvre, 1991, p.347). This production of urban space includes the relationships of a triad of energy (of social character), social space, and relative time. He states further that ‘When we evoke “space,” we must immediately indicate what occupies that space and how it does so: the deployment of energy in relation to “points” and within a time frame.’ (Lefebvre, 1991, p.12). In the case of informal settlements, these spaces are significantly shaped by geographical factors, where land dealers occupy areas that can be easily and inexpensively developed. Power dynamics also play a role, with populations often relying on local leaders, while political relations with formal authorities or private enterprises facilitate agreements that benefit development of the neighbourhood. The construction of certain infrastructure, such as main roads, schools, water supply, and partial energy supply, as well as architectural-, planning-, and legal consultancy, are delivered in part by the private sector, often with the unofficial knowledge of the municipality.



Figure 5. First day of site occupation by a new family. Construction of the new home.

*We distributed flyers in the city centre, we gave them the address and people came here. We gave them the information, each plot was 8m x 15m, an area of 120 m<sup>2</sup> for each plot, estimating that they can build their little house there...*

*We follow the patterns developed by the municipality, Mucho Lote (municipal housing project) offers lots of 6m x 12m, so ours is a better offer and can become formalized with time....*

*(Interview with the neighbourhood secretary of Sergio Toral, 2010)*

*Here [in Sergio Toral] we allow construction with bamboo; in other neighbourhoods they ask you to build with cement and bricks, and this is too expensive for poor and low-middle-income families. With the Plot Possession document, they can request a credit for a house from Hogar de Cristo. They can build the house in 15 days.*

*(Interview with a top-level leader of Sergio Toral in 2014)*

In the informal settlement of Sergio Toral, the neighbourhood's organization, particularly its top-level leader, also takes advantage of the political situation, the 'coyuntura política.'<sup>2</sup> Coyuntura política refers to the specific political context or circumstances at a given moment in time, often characterized by the convergence

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<sup>2</sup> Derived from the Latin *cum*, meaning 'with', and *iunctura*, 'union', according to the Spanish dictionary, *coyuntura* denotes 'a season or opportunity for something' or 'a combination of factors and circumstances that, for deciding an important matter, presents itself in an action.' In the political realm, *coyuntura* refers to the set of factors and circumstances that come together at a given moment and create favourable or unfavourable conditions for making a decision or undertaking a public action. Defined in *Enciclopedia Política*, (Borja, 2018).

of economic, social, and institutional factors that influence political dynamics, decision-making, governance, and public policy. The coyuntura política is shaped by factors such as economic pressures (e.g., inflation, recession, or resource dependence), social movements (e.g., protests, uprisings, or shifts in public opinion), institutional dynamics (e.g., elections, power struggles, or constitutional changes) or even external influences (e.g., international relations, global markets, or geopolitical shifts). In Latin America, coyuntura política often reflects the interplay of long-standing structural inequalities, historical legacies, and current events, creating a highly fluid and complex political environment.

Neighbourhood leaders are keenly aware of these dynamics and identifying opportunities that support the growth of informal settlements; they utilize the neighbourhood's territory, including its infrastructure or lack thereof, and the support of voting residents to demand specific actions from the authorities in favour of the informal settlement.

#### **(iv) Territoriality**

Studies of space in human geography are different from those in urban planning. For example, human geography uses the term 'territory' to describe social spaces, while planning often uses the notion of territory to focus on land and its physical characteristics. In studies of territoriality, power is implicit. In legal and political terms, territory refers to an area controlled by a certain power rather than a space limited only by boundaries (Kärrholm, 2007). Mattias Kärrholm describes how 'territories are events, expressive and boundary-producing power relations, and as such, are not defined by a certain land or area' (Kärrholm, 2014, p.246). Kärrholm's theory of territoriality moves beyond traditional ideas of territories as fixed, legal, or geographical areas; territory is a dynamic and relational process defined by power, social interactions, and material objects. In Guayaquil, land dealers perceive the area of a neighbourhood more as a social territory, where they find opportunities to exercise relational and territorial power within a framework of illegal businesses due to the weakness of municipal authorities. Sergio Toral provides land, homes, and infrastructure services such as water, electricity, transport, and cyber communication; the leaders also offer unexpected community services, including education, neighbourhood security, legal advice, credit options, and even employment, thereby shaping the neighbourhood.



*Figure 6. Guards employed at the Sergio Toral neighbourhood. Uniforms and bicycles are provided by the pre-cooperative.*

Brighenti and Kärholm describe ‘territories as processes rather than stretches of land, as social programmes [...] instances of “material imagination”, ... as they proceed through cycles of production, stabilization and transformation.’ (Brighenti A. a., 2022, p 2). This perspective is useful in regard to Sergio Toral, particularly when examining its location: the neighbourhood is situated partially within and partially outside the urban development boundary – a municipal line intended to limit urban expansion and protect rural areas, but that has, over time, pressured rural territories to urbanize. Kärholm discusses the concept of territoriality as inherently tied to power dynamics, where territories act as expressions and manifestations of power relations. Territoriality involves the use of space as a medium through which power is exerted, not merely by controlling land physically, but also by steering how social, political, and economic forces shape space. According to Kärholm, ‘A territorial practice of power can be described in terms of network stabilizations where connections between a set of actors or actants (such as rules and regulations, borders, sub-territories, walls, locks, pavement, behaviours, norms) become increasingly stable and predictable.’ (Kärholm, 2007 p.13) Following this description, Sergio Toral could be described as a territory controlled by a set of actors, such as dwellers and members of a cooperative, who follow a set of rules and behaviours defined by land dealers and top-level leaders, and where some sub-territories and artefacts, such as public laundries and public law banners clearly symbolize and play important parts in dynamic power relationships.



Figure 7. (a) Sergio Toral dwellers' rights and duties (b) Public law banners in the neighbourhood, listing the three offenses that lead to expulsion: drug use, stealing, and rape.

Brighenti describe territories as 'acts of coexistence; they are inherently social, even when designed to exclude and segregate – that is, whatever treatment is imagined for the socius' (Brighenti, 2014, p.13). He also highlights the concept of the 'capital of mobility' or 'motility' of social territories; these terms refer to the public domain's capacity to remain mobile, which thereby increases its value (Brighenti, 2014, p.6). This social and transformative aspect of territoriality is important. For the leader in Sergio Toral, the transformative aspect and potential of the territory he operates is especially important. He utilizes adaptable spaces in the occupied land that can be shifted, densified, or expanded, allowing for flexibility when negotiating with local authorities and when accommodating the needs of the neighbourhood's residents. The leader's capacity to navigate and manipulate spatial arrangements is crucial for sustaining territorial control.

The concept of territory becomes highly complex, functioning as an 'assembly of powers'. According to Brighenti, this complexity involves not dealing with a vague superior omnipotent power but with a description of 'a set of immanent relations and regional programs among human beings – and territories are but ways of imagining and performing such relations.' (Brighenti, 2014, p.19). In Sergio Toral, the territory is actively shaped by the interwoven power dynamics of different strategies and tactics.



*Figure 8. View from the periphery of the Sergio Toral neighbourhood, where residents have blocked the main access street in a dispute with local authorities.*

# 3. Studying the City of Guayaquil

*When walking through the informal settlements of Guayaquil and engaging with the residents, one senses a unique way of ‘doing things’ and a blend of technical and practical knowledge that differs significantly from other neighbourhoods with which I am familiar. For instance, a young couple with a newborn shared their story: they had been searching for a home and found they could move to the neighbourhood, they had secured a loan to acquire a lot, began constructing their house, and planned to move in the following day. The husband had also received a job offer as a security guard in the same area. What formal neighbourhood simultaneously provides housing, grants a loan without requiring guarantees, and offers employment?*



Figure 9. Map with location of Guayaquil-Guayas, source, based on Google Maps. Redrawn by the author

## 3.1. General Information

The city of Guayaquil, officially Santiago de Guayaquil, is the largest and most populous city in the Republic of Ecuador. It is located in the province of Guayas, which is situated between the Guayaquil Gulf in the north on the Pacific Coast and the Guayas River that flows from the Andes Mountains from north to south. The region features a natural estuarine ecosystem with a tropical, warm, humid climate and is affected by the El Niño phenomenon.<sup>3</sup> These geographical conditions have made Guayaquil one of the main maritime harbours on the Pacific Ocean and one of the country’s major inland ports.

<sup>3</sup> El Niño is a climate pattern that affects weather around the world and heavily affects coastal cities on the Pacific Ocean.

Guayaquil has an area of 347 km<sup>2</sup>. Of this, 316 km<sup>2</sup>, or 91.9%, of the total area is mainland; the remaining 31 km<sup>2</sup>, or 8.1%, is composed of bodies of water, including rivers and estuaries. Situated in a low and swampy area, the city is 4.6m above sea level, with some hilly areas. The average annual temperature is 25.7°C, and the average annual rainfall is 791mm.

The province has national importance for agriculture, aquaculture, industry, and its vibrant commercial activities. According to the latest study conducted by the Central Bank of Ecuador from 2010, Guayas generated 26.44% of the country's GDP, reaffirming its leadership among the country's provinces. Economic activities are concentrated predominantly in five sectors: agriculture, fisheries, manufacturing, commerce, and construction, which collectively account for 68%. The study also highlights that the economy primarily consists of micro-enterprises, underscoring the significance of the informal economy,<sup>4</sup> which provides employment to thousands of Guayaquil residents (Ponce, 2020, and World Bank 2020).

The city of Guayaquil is recognized nationally as an important business hub with regional, financial, political, and cultural influence. In 2002, the magazine *América Economía* ranked Guayaquil as the best Latin American city for investments and business development. Today, the situation in the country is less optimistic. The COVID-19 pandemic, coupled with political instability, corruption and narco-trafficking, has weakened production, the economy, and democracy in both the city and the country as a whole.

According to the latest statistics published by the national statistics and population survey agency INEC (Instituto Nacional de Estadística y Censos del Ecuador), Guayaquil has approximately 2.7 million inhabitants; in 2018, the reported population was 2 644 891. According to several authors, approximately 60% of the city's inhabitants live in informal settlements or slums. Many of these families originally settled in informal areas that were later formalized as official neighbourhoods (Delgado, 2013, Huertas, 2011; Sánchez, 2014). The metropolitan area of Guayaquil – also known as Gran Guayaquil, formed by the city adjacent to the neighbouring cities of Samborondón and Durán – is the most populous metropolitan area in the country with a density of 7350 inhabitants/km<sup>2</sup> (INEC 2019).

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<sup>4</sup> The informal or irregular economy refers to activities performed outside of tax or administrative regulations, e.g., undeclared domestic work and spontaneous street vending. According to the International Labour Organization (ILO), more than 60 per cent of the world's employed population were engaged in the informal economy in 2018.

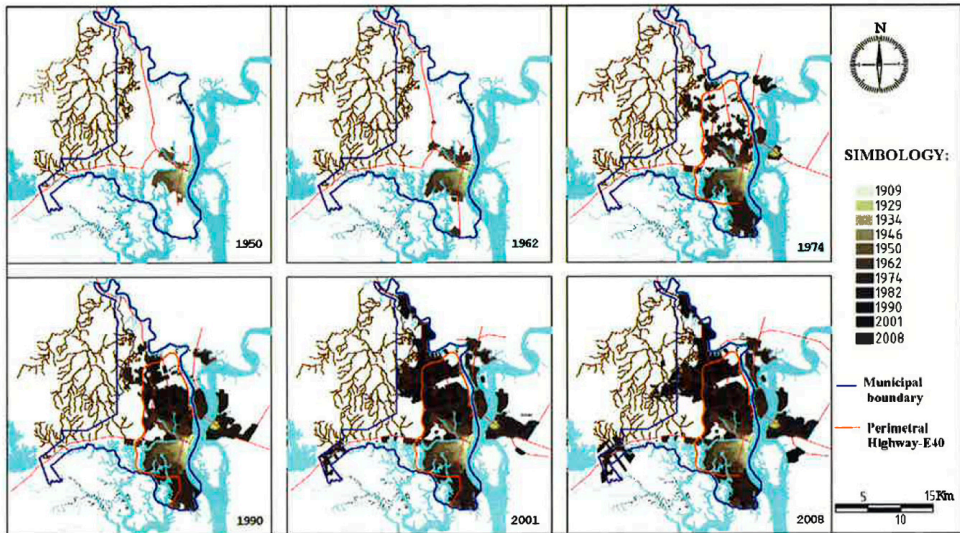


Figure 10. Urban expansion of the city 1950 – 2008 by Guayaquil Municipality; in Delgado, 2013.

Like many cities in Latin America, Guayaquil has a history of three centuries of Spanish colonialism (1536–1820). In addition to the Spanish, indigenous peoples, and Afro descendants from the colonial period, immigrants from Italy, Lebanon, Germany, and China have settled in the city. The flourishing economy has also attracted migrants from the highlands and impoverished areas along the coast and further inland. Guayaquil is well-known in the country as a city offering opportunities for migrants.

Inequality is a persistent phenomenon that characterizes many other cities across Latin America, and Guayaquil is no exception. The population distribution in the neighbourhoods is homogeneous in relation to ethnicity and social stratum. This was very clear in the study, especially in the Nigeria neighbourhood, whose population predominantly comprises very low-income families of African descent.

The city has prospered since the late-20th century, partly due to its emerging role as a centre for illegal drug money laundering, which was further stimulated when Ecuador adopted the dollar as its national currency in 2000. The city completed a significant urban renewal project that same year, inaugurating a beautiful new river walk called Malecon along the Guayas River. As mentioned earlier however, the city is facing difficulties, especially after the impact of the Covid-19 pandemic.

This investigation has studied and presents the historical development of the city and its urban development. Focus has been on the following three aspects, all of which are related to growth driven by informal settlements: (i) shifts in production and economy; (ii) development of infrastructure; and (iii) demographic growth (see

figure 4). The overview of informal neighbourhoods, followed by an in-depth study of selected neighbourhoods, also suggests that these three aspects are interrelated.

Founded in 1537 under Spanish colonial dominance in Latin America, Guayaquil has been a transport and commerce hub since its inception, initially exporting agricultural products from the region. Industrialization at the end of the 19th century and the monoculture of cacao paralleled the city's first significant demographic growth, and the population doubled in just 30 years, going from 45 000 inhabitants in 1892 to 92 000 in 1923 (INEC). Cacao, or 'the golden grain', as it is known, attracted many people from surrounding provinces, standing for 70% of national exports in 1920. A decade later however, cocoa prices declined and bananas took the place of cocoa as the leading export product. According to Valencia (1982), informal settlements, or 'tugurios',<sup>5</sup> emerged after 1921 as a consequence of the sharp drop in cocoa prices to one-fifth of their previous value (Valencia, 1982).

In 1933, Ecuador became the first producer of bananas in the world, and there was a representative increase in Guayaquil's population, mainly due to migration from nearby towns, as banana production requires more workers. The city's population tripled in 20 years, going from 154 000 in 1942 to 511 000 in 1962 (INEC).

In the 1950s, the flourishing economy allowed for the formation of formal upper-class neighbourhoods such as Urdesa in 1956, Miraflores in 1957, and Los Ceibos in 1960 (Valencia, 1982). This new urban development led to land occupation on the outskirts of the cities in the 1950s and 1960s in a process known as *invasiones* (Sanchez, 2014). Neighbourhoods like Mapasinge and Prosperina – which are now formalized – began in this manner. By 1968, half of the city's population lived in the peripheral areas, or suburbs (Fernandez Maldonado and Fernandez Davila in Delgado, 2013). The city began the characteristic horizontal growth typical of Latin American cities with these neighbourhoods.

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<sup>5</sup> *Tugurio* is a Spanish word for informal settlements, used in Ecuador and other Latin American countries.

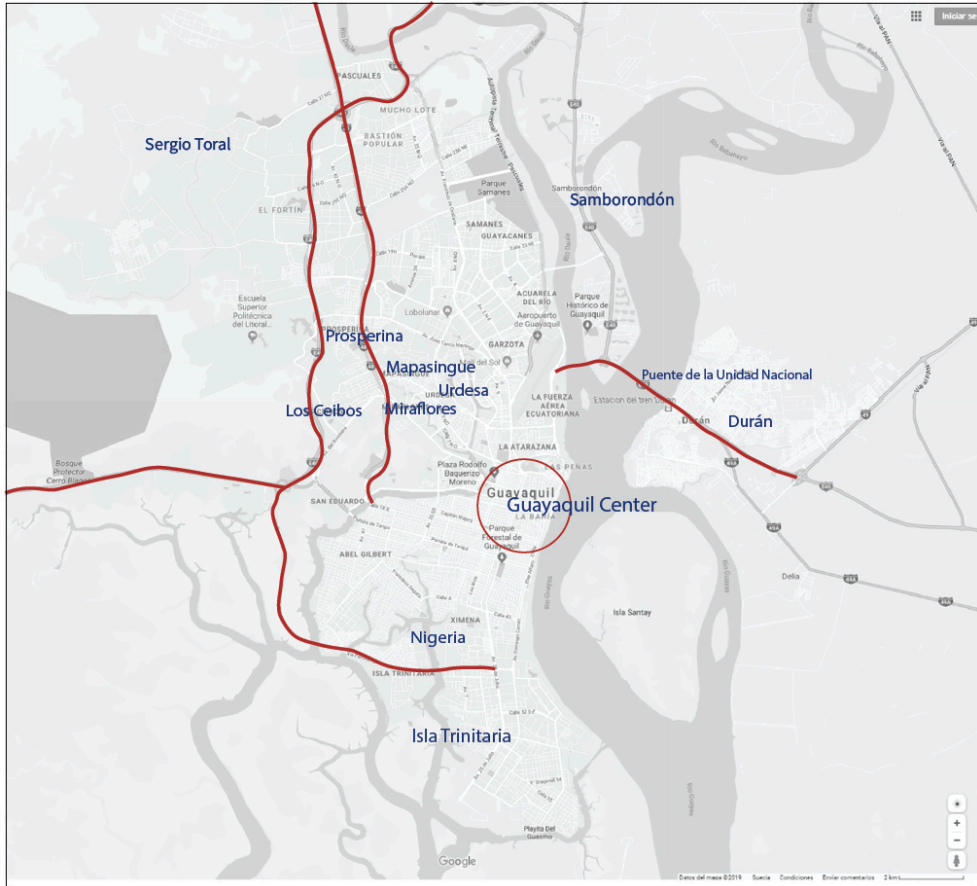


Figure 11. Map of neighbourhoods and roads in Guayaquil City. Based on Google Maps. Redrawn by the author.

The petroleum industry boosted both the public and private sectors of the economy in the 1970s and '80s, leading the municipality to invest in road infrastructure, urban development, and industrial projects. In 1970, the Puente de la Unidad Nacional (National Unity Bridge), connecting the Samborondón peninsula to Durán, was inaugurated at the delta intersection of the Guayas River. These areas, once agricultural lands, have since been urbanized. Durán was designated a canton of Guayaquil in 1986 and transformed into residential areas for middle- and high-income families, becoming a dormitory city with a population of 236 000 in 2010 (National Census 2010, INEC). Today, Samborondón is home to high-income families who live in gated communities. The infrastructure development during this period of economic optimism was crucial for the urban development of the city and led to planned interventions of significant magnitude.

In 1973, the municipality of Guayaquil decided to invest in what is called the first urban renovation plan, which led to the removal of 130 ‘conventillos’,<sup>6</sup> or slums, in the central city. The intervention was more urban clearance than a renovation effort.<sup>7</sup> One consequence of this action was the creation of informal neighbourhoods such as El Guasmo,<sup>8</sup> a settlement built by pioneering low-income urban dwellers that began in the southwest of the city. Many families sought to escape from the overcrowded city centre and one-room multigenerational family homes on the search for a ‘home of one’s own’ (Moser, 2009). The 1970s and ‘80s were characterized by strong industrial activity, which resulted in ecological destruction and had particularly negative consequences for the diversity of the mangroves in central areas of the city (Delgado, 2013; Sanchez, 2015).

According to Moser, the city of Guayaquil went through three distinct phases between the 1970s and 2000s: economic optimism in 1978; economic stagnation due to political instability from 1978 to 1992; and financial crisis recovery and emigration from 1992 to 2004 (Moser, 2009). In 1978, the economy was growing rapidly as the population on the periphery of the city was increasing; this population growth was driven by the migration of Afro and mestizo families from coastal region as well as some indigenous populations from the mountainous areas of the country.

Political instability, the decrease in oil prices on the international market, and natural catastrophes prevented governments from being able to support a population accustomed to highly subsidized services and low taxes.

Informal settlements were a solution for low-income families. Spontaneous settlements on Trinitaria Island, for instance, hosted many members of the Afro population. Meanwhile, informal settlements continued to emerge in the north, accommodating many mestizo families. Inaugurated in 1980, the inter-municipal road Via a la Costa contributed to the city’s westward expansion, while the Via a Daule facilitated expansion to the north. These extensions beyond the official urban boundaries became areas colonized as informal settlements and organized by land dealers, such as Ciudad de Dios, Monte Sinai, Valerio Estacio, and Sergio Toral (I).<sup>9</sup>

In the 1980s, the global economy emphasized privatization, and the national economy in Ecuador benefited the international market by dismantling the national

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<sup>6</sup> ‘Conventillos’ is a Spanish word that refers to slums built in central areas of cities, where dwellers settle on empty plots or in abandoned buildings.

<sup>7</sup> Clearance city planning was used intensively used in African countries such as Kenya, and in Dar es Salaam in the 1960s – ‘80’s.

<sup>8</sup> The neighbourhood El Guasmo is similar to the Nigeria neighbourhood, where houses are built on bamboo poles over estuary water and no services are provided. The population in 2005 was 450 000. (Newspaper / tv)

<sup>9</sup> Here, Sergio Toral (I) refers to the first settled neighbourhood.

and local markets; many Latin American cities followed the same pattern during this period. Some authors characterize this period of urbanization as 'business-oriented' (Sanchez, 2014), with an economic rationality of administrative efficiency, privatization of public services, and business-supported private construction without social or community investment. The urban development progress was short-lived; the municipal administration later suffered from institutional instability and corruption (Delgado, 2013; Wong, 2015).

Ecuador had ten different presidents between 1990 and 2011. Wong has noted that although chaotic, the process generated valuable knowledge about urban administration and evolving management models (Wong, 2015). In 1997, when Ecuador returned to a democratic system and opportunities for decentralization and local management emerged, cities began to change; Delgado attributes this to the understanding of local administration's role as leadership (Delgado, 2013). The initial informal settlements in the north expanded further still in the late '90s, as seen in the informal neighbourhood of Sergio Toral, which began its second and later third phases. The northern part of Trinitaria Island was transformed into a consolidated urban area with the construction of the Via Perimetral, which had commenced in 1987. The mangrove ecosystem and the fishermen's land were slowly urbanized, first by informal occupations, with dwellers living in bamboo houses on poles, and later by more organized land dealers (Interview with the leader). The population increased sharply during these years, rising from 1.2 million in 1982 to almost 2 million in 2000 (INEC), and the informal settlements grew both in the north, northwest and south of the city. According to maps and documents from the Urban Planning Office dated 2009, the municipality initiated a consolidation plan specifically for Trinitaria Island in 2005. The population of the informal settlement on Trinitaria Island quadrupled in approximately 11 years, increasing from 18 500 inhabitants in 1990 to 76 900 in 2001.<sup>10</sup>

There was a significant, municipality-managed urban regeneration intervention in the centre of Guayaquil between 1997 and 2000. The intervention aimed to address the degradation and gentrification of the historical centre, which was suffering from commercial overcrowding. The area had become overwhelmed with both business activities and merchandise storage; its previous functions had included production, recreation, and domestic activities. Street vendors had taken over the streets and the characteristic, republican architectural style arcades (Sanchez, 2014). The urban infrastructure, including the river waterfront, was gravely deteriorated, especially after the heavy effects of El Niño in 1997, which had affected the city centre and the entire city and region and severely impacted the national economy. The urban regeneration interventions included projects aimed at revitalizing public spaces, such as street regeneration and new pedestrian paths for tourists, including for example the touristic Cerro Santa Ana. There was significant focus on the

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<sup>10</sup> Data from Sistema de Información Geográfico Municipal – SIGMU in Sánchez 2014.

recreational, cultural, and commercial enhancement of the waterfront area known as Malecón 2000, built between 1997 and 2002.

A decade after the completion of Malecón 2000, the impact of this prestigious project extended to nearby informal settlements, leading to noticeable improvements in river cleanliness and the initiation of ecological conservation projects along the riverbanks. One initiative, known as Malecón del Salado or Guayaquil Ecológico, is a collaborative effort between the Ministry of Environment and the Ministry of Urban Development and Housing and aims to improve the ecological health of the river and its surroundings. The streets running parallel to the river now connect various informal settlements that have now been formalized or are in the process of being formalized. One prominent example is the four-km elevated street being developed along the El Salado estuary. The project is being overseen by the Ministry of Urban Development and Housing, and the street links a number of settlements that originated as informal. Many consider this project to be a municipal strategy to formalize neighbourhoods with minimal financing, a concession to the low-income population as compensation for the high investment in Malecón 2000, which primarily benefited the formal and privileged population (interviews with academics and city architects, 2014).

Formal housing interventions in response to high migration to the city were characteristic of the first decade of the 2000s, with attention to affordable housing provision considered at the national level by the government (Peek, Hordijk, and d'Auria, 2017). A total of four major housing projects were implemented in this decade: two by the municipality and two by the central government (data from the Urban Planning Office of the Municipality, 2010).

The first low-income municipality mass-housing production scheme, *Mucho Lote I*, was implemented from 2002 to 2005, and 13 000 plots were provided in a site and service scheme. The initiative allowed housing to be developed by private developers and, on a smaller scale, through self-help construction. Phase II continued with variations of the same scheme, and an additional 7 000 plots were offered. Each plot measured 12m x 6m, and the project permitted construction of a (maximum) two-storey house. Another project, *Mi Lote*, commenced in the northern area in 2010 and offered 10 000 plots (data from the Urban Planning Office of the Municipality).

The central government invested in large-scale social housing projects in Guayaquil such as *Socio Vivienda I*, which provided 2 817 units in 2010, and *Socio Vivienda II*, which offered 13 700 solutions through a public-private partnership intervention in 2013. These projects encompass one-storey row houses and multi-storey residential developments. *Socio Vivienda II* also involves the relocation of 5 600 families who were displaced after the Guayaquil Ecológico project. At the time of writing, *Socio Vivienda* is progressing with Phase III of its development (data from the Urban Planning Office of the Municipality).

The project Ciudad Victoria was initiated in 2012 after protests, specifically in the city of Guayaquil, in response to families having been forcibly evicted from the northeastern part of the city, including neighbourhoods studied here, Sergio Toral II and III (see Rasmussen, 2011). The central government needed to demonstrate control over the urban territories and reclaim the legal urban delimitation. Most of Sergio Toral III was dismantled as a result. Ciudad Victoria commenced with 420 households for some of the evicted families and later expanded to include a total of 8 000 low-income houses.

The graphic below summarizes how Guayaquil’s urban development has been shaped by three main forces: production, infrastructure development, and demographic growth. Infrastructure projects are implemented by the formal or informal sectors. Demographic growth results from natural population increase and economic migration.

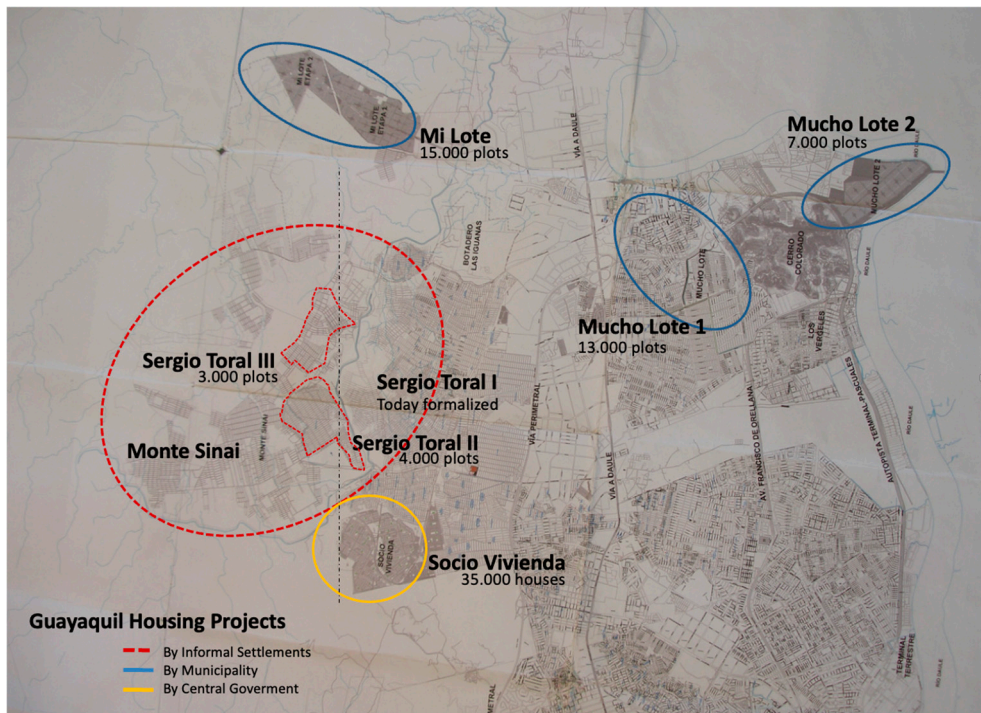
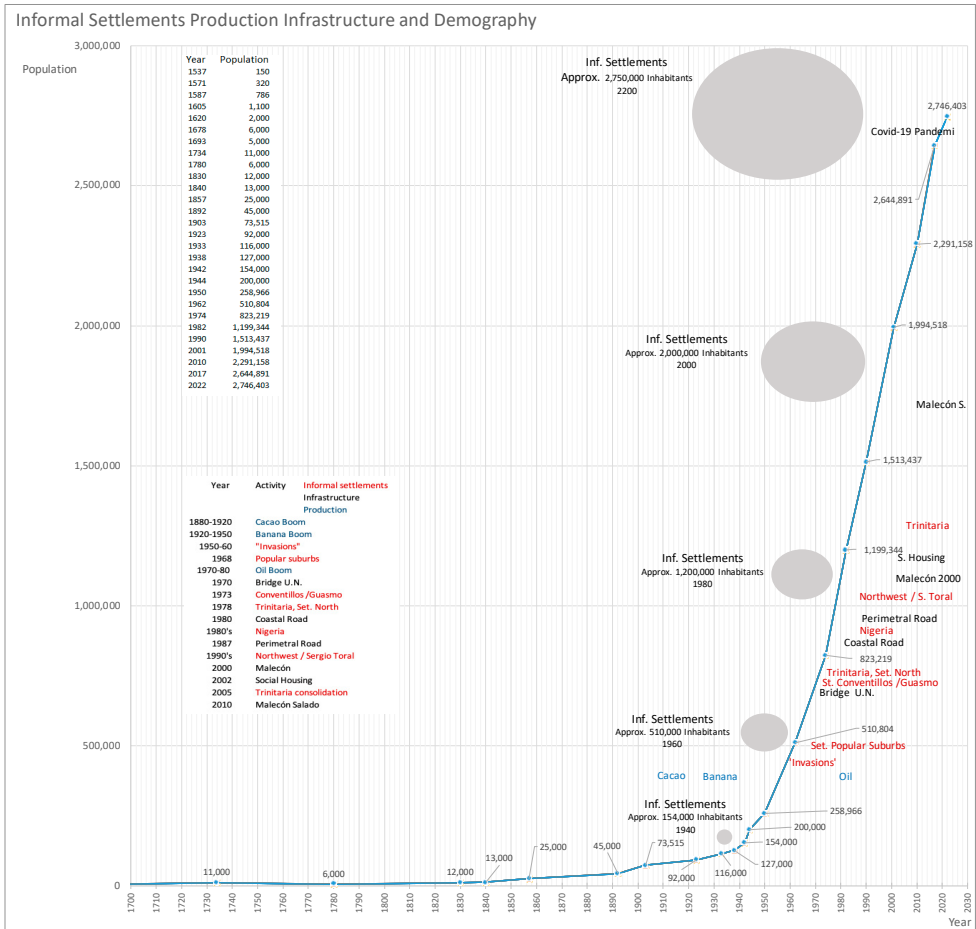


Figure 12. Guayaquil; map of some housing projects by the informal and formal sector, projects are dated between 1980 to 2015  
Redrawn by the author



*Figure 13. Graphic representation of Guayaquil's city development in relation to production, infrastructure, and demographics. Population data is from Valencia (1982), Delgado (2013), Sanchez (2015), INEC (2022), and others. The percentage of the informal population has been assumed constant at 60%, based on sources that indicate it typically exceeds half of the total population, including historical data. Graphic by the author*

Informal housing production has been important for accommodating the labour force needed for the city's production and economic development, especially when the government was unable to satisfy the housing needs of the new population. The social housing project Mucho Lote, planned and managed by the municipality, and the informal settlement of Sergio Toral (Phases I, II, and III) has provided homes for around 10 000 families. Sergio Toral developed in the 1990s, while Mucho Lote was implemented in the 2000s (see Rasmussen 2011). The cacao, banana, and oil booms have been driving forces behind the city's population and economic growth; the graphic illustrates incremental population growth parallel to these booms. Additionally, it is notable that this curve coincided with the rise of informal settlements, particularly during the 1980s and '90s, marked by significant illegal expansions in the northwest.

The maps below illustrate the neighbourhoods of Guayaquil categorized by their legal conditions as formal, formalized, in the process of being formalized, or informal. It is evident that the roads Via a la Costa and Via a Daule have influenced the formation of new informal settlements; this can be observed in several neighbourhoods in the south, such as Nigeria and Guasmo, and many others in the northwest, including Bastion Popular, Flor de Bastion, Fortin, Mapasinge, Monte Sinai, Nueva Prosperina, Sergio Toral, and others.



## 3.2. Methodology

*Walking through different informal human settlements in neighbourhoods in cities of the Global South, one can observe their different characters; some seem to perform better than others, regardless of whether they have more or fewer material resources. Memories, experiences and intuitive comparisons come easily to me as an observer walking through settlements in different contexts. However, my professional repertoire, – or baggage – contains no easy or immediate response as to why they are different, or how the informal settlements achieve what they do whilst the formal sector in comparable cities struggles for any success.*

### **Case Study Methodology**

This study primarily examines two cases of informal settlements in vastly different geographical locations: (i) Sergio Toral in Guayaquil, Ecuador; and (ii) Manzese in Dar es Salaam, Tanzania. Both cases are part of a broader PhD research study. This licentiate dissertation focuses on the case of Guayaquil. The case study primarily examines the development of the neighbourhood, emphasizing the use of territory as an asset and the role of the community and everyday life in this development. Upon completion, the PhD dissertation will also address the second case, Manzese in Dar es Salaam, and provide a comparison of both cases.

This chapter presents the methodology utilized, with a particular focus on the Guayaquil case.

This empirical research is framed in social science, and the object of study is the contemporary phenomenon of informal human settlements. The methodology used is the case study, an empirical inquiry in which a contemporary phenomenon is investigated in depth and within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident (Yin, 2009). Case studies are specific to time and place (Johansson, 2003) and often involve hermeneutical perspectives. The cases are examined from a researcher's role as an interpreter who acts as an 'agent of new interpretations, new knowledge, but also new illusion.' (Stake, 1995, p.99)

The purpose of the study is to understand and identify patterns in the phenomena of the informal settlement; an inductive investigation is thus present throughout the entire research. The search for qualitative answers also requires inquiry into parameters that contribute to better performance of neighbourhoods. Here, the case study methodology takes an intrinsic approach, where the researcher does not primarily aim to generalize the findings but instead focuses on understanding the specific case (Johansson, 2003) in order to draw conclusions that might have bearing elsewhere – although it is not possible to generalize in any universal way. The

alternative to an intrinsic case study is a purposefully selected case that is, for instance, information-rich, critical, revelatory, unique, or extreme (Johansson, 2003).

Learning the complex milieus of the cases and the need to advance gradually, stage by stage, have been major challenges within the investigation. Therefore, the investigation has developed with a progressive focus, moving from observation to analysing preliminary findings to shaping and reshaping the inquiry and the explanations (Parlett and Hamilton, 1976, in Stake, 1995). The research is also anchored in the case study methodology with an exploratory approach, i.e., an inquiry that advances gradually, where the focus may change according to the findings (Yin, 2009). As a consequence, research questions have been reformulated along the way; this shift in boundaries, and occasionally focus, throughout the research process is characteristic for the case study methodology (Johansson, 2003).

The cases were selected after skimming several informal settlements in each city. The skimming entailed reading relevant key documents and city studies, visiting the areas in questions alone as well as in the company of locals, observing, and conversing with professionals, researchers, municipal authorities, and dwellers of the selected neighbourhoods. Guayaquil and Dar es Salaam are both principal cities in their countries, and both have populations of around 3 million. When the studies were being carried out,<sup>11</sup> both were equatorial cities in the Global South experiencing rapid urbanization. A requirement for the selected neighbourhoods was that they have at least 5 000 inhabitants, be at least ten years old, and be classified as slums or informal settlements.

The inquiry started with a field study in Guayaquil and the skimming of several informal neighbourhoods: Fortin de la Flor, Guasmo, Monte Sinai, Mapasinge, Nigeria, Nueva Prosperina, and Sergio Toral. Sergio Toral was selected based on the primary data collection, which indicated higher quality of life and better performance than other neighbourhoods. Additionally, in many interviews, other informal settlement dwellers cited the neighbourhood and its leaders as a ‘good model to follow’, and other leaders spoke positively about the leader of Sergio Toral. Sergio Toral provided the opportunity to observe and analyse a phenomenon that is very difficult to access with social science inquiries, with the potential for descriptive information of a revelatory character (Yin, 2009, pp.48-49). For the research purpose, the Guayaquil case has thus become a revelatory case.

The second field study, conducted as a theoretical replication inquiry (Yin, 2009), took place in the non-planned<sup>12</sup> neighbourhood of Manzese in Dar es Salaam.

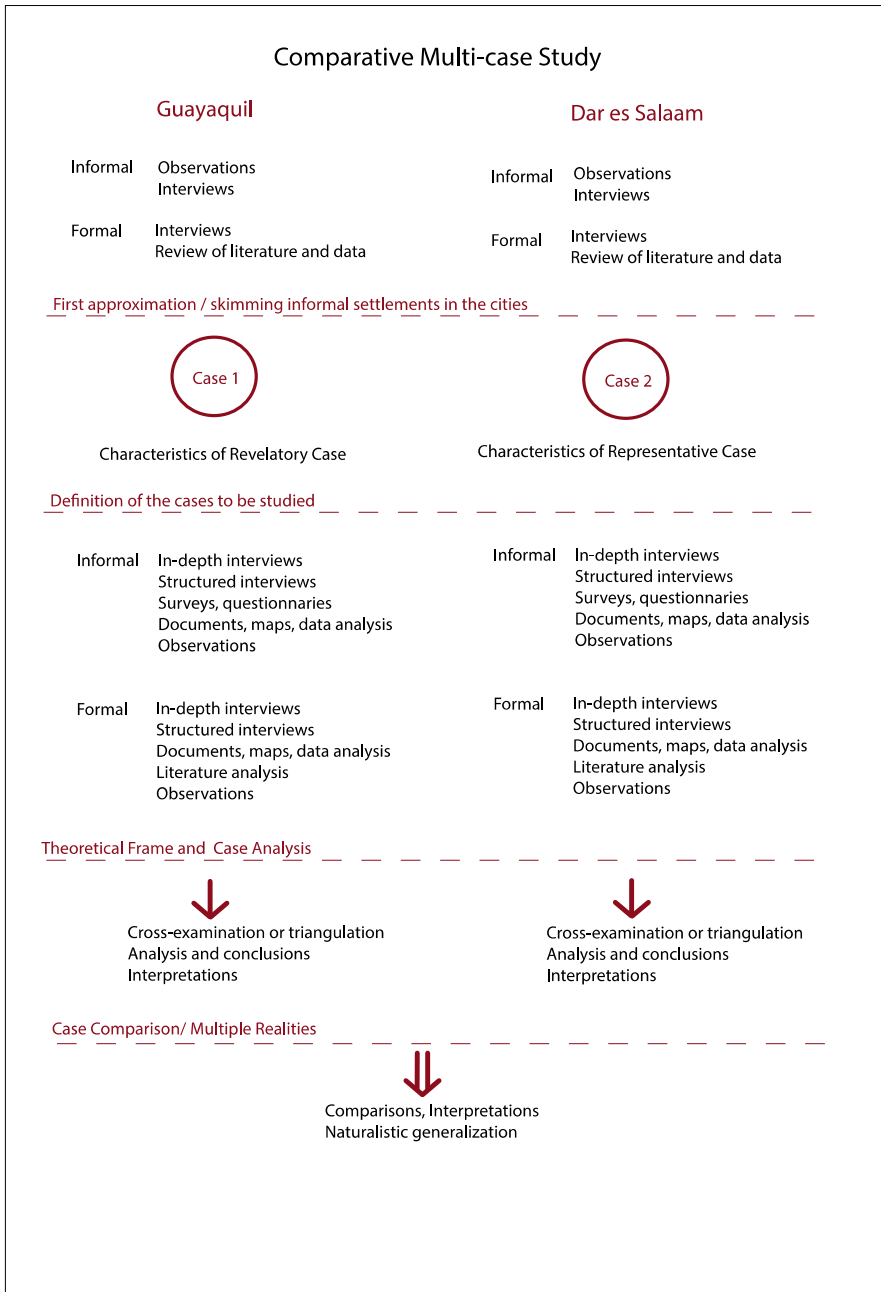
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<sup>11</sup> 2010–2015 in Guayaquil and 2014–2019 in Dar es Salaam.

<sup>12</sup> In Tanzania, the politically correct term for informal settlements is ‘non-planned’. These settlements can include properties of both legal and illegal status within the same neighbourhoods.

Preliminary research suggests that this case could serve as a representative example, capturing the conditions of everyday life with a focus on the assets of public and common spaces, as described by Yin (2009).

The methodology proposed, illustrated below, involves a parallel approach with two case studies: a preliminary overview of each city to define their characteristics and theoretical framework, followed by separate analyses and interpretations of each case. The study concludes by comparing the cases to draw lessons and explore possibilities for generalization. As mentioned previously, the intention is to include the second case study, the Dar es Salaam case and the comparative multiple-case study in a PhD dissertation and other publications.



*Figure 15. Graphic explaining the methodology proposed by the author. Note that this licentiate thesis focuses on the Guayaquil case.*

## **Empirical Investigation**

*Documentation and transparency are elusive when working with informality. The answers and information obtained usually reflect partiality, a political agenda, or a survival strategy. Formal institutions may have one answer while informal entities may have another. Who owns the truth? And what is the truth? Whom should I trust?*

The inquiry used multiple sources of evidence in the search for quality and reliability (Yin, 2009). The research included both informal and formal entities, including top authorities in the informal settlements, as well as people who worked and/or lived in the settlements. The sources included community leaders, key informants, land dealers, street leaders, and top authorities working in the formal sector, such as municipal planners, researchers, and other professionals from the housing sector. Documents and maps were also retrieved from both formal and informal sources. Triangulation or cross-examination in this research refers to the use of different methods as well as the use of different sources to facilitate the validation of data through cross-verification from more than two sources to ensure the validity of the case.

The data collection was carried out between 2010 and 2015 in five study visits to the city of Guayaquil, each of which lasted 20 to 30 days. This included 32 individual in-depth interviews and 15 group in-depth interviews, with respondents from both the formal and informal sectors of society.

### *Direct observations and discussions*

Direct observations and discussions with colleagues while traveling to different countries in the Global South, such as Bolivia, Colombia, Ecuador, Guatemala, Peru, the Philippines, and Tanzania, have been important sources that have informed and shaped this research. Deeper and constant observation in both the Guayaquil and Dar es Salaam cases has further enriched the study. Comparative observations have helped redirect subsequent observations; what is observed in one context seems to emphasize what is or will be observed in another. Observations have focused on the physical environment and the everyday life of the neighbourhoods. Sometimes I observed alone, and sometimes I walked through neighbourhoods with the interviewees before or after interviews.

Observations of several neighbourhoods and their public spaces were carried out during numerous visits to informal settlements in the city. These observations were crucial prior to the case selection. Sergio Toral stood out as extraordinary against the city's other informal settlements; it appeared cleaner, with less rubbish on the streets, and there were special artefacts in the urban space, such as communal laundries and a solid brick, three-storey building where children in school uniforms gathered. There were also organized telephone and internet booths, and transport bus facilities bearing the name of the neighbourhood. After the case was selected, the visits were concentrated on the Sergio Toral neighbourhood. Each visit lasted

between four and eight hours and included both observations of the area and socializing with the residents. The research was conducted in an iterative and exploratory manner, allowing observations to guide and reformulate subsequent interviews, and vice versa.



Figure 16. Telephone booths with internet access, organized by neighbourhood leaders.



Figure 17. Busses from Sergio Toral transport company, informal in nature. This route intersects with the formal routes that connect to the rest of the city.

### *Surveys with residents from Sergio Toral*

Two questionnaire-based surveys were conducted in informal neighbourhoods. The first took place in October 2010 and covered similar topics as the interviews but with a greater focus on the community's role and everyday life. These surveys were conducted by the researcher (me) with the collaboration of architecture students from the Catholic university. Fifty-six surveys were carried out with residents of

Sergio Toral and twenty-nine with residents of the adjacent Marco Solis neighbourhood. The second survey was conducted in October 2012; this took place only in Sergio Toral, with the collaboration of two residents, my driver, and myself. The survey focused on the physical environment, specifically on plots and houses, and included aspects such as plot occupation, construction size, construction materials, and consolidation.

Political issues in the country made the circumstances of the second survey more difficult: in January 2011, the central government had decided to limit the formation of informal settlements, and authorities issued arrest warrants for several people accused of fraud, land dealing, usurpation, carrying and possession of weapons, and extortion.

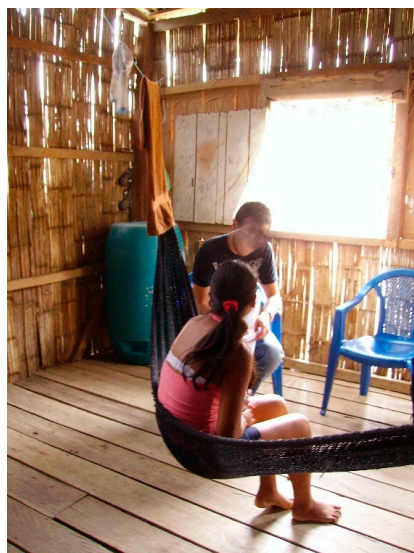


Figure 18. In-home interview with a housewife, and a neighbour responding to a questionnaire for a student, both in Sergio Toral.

A notable finding from the residents' questionnaire responses is noteworthy that 80% of the Sergio Toral residents interviewed identified peace and security as an advantage of living in the neighbourhood, and 96% expressed a desire for future legalization. Additionally, 97% acknowledged that decisions regarding neighbourhood planning are made by administrative leaders, yet 73% reported participating in community activities such as street cleaning, street repairs, public lighting repairs, taking part in community workdays, or *mingas*,<sup>13</sup> festivities, and

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<sup>13</sup> *Minga* refers to voluntary, unpaid work for the benefit of a community. During the Inca Empire, it was the basic form of labour for carrying out infrastructure projects within communities for the benefit of the territories (Espinoza, 2000).

bingo events organized by the authorities. Residents also reported anomalies such as mistreatment of children or women.

Negative aspects reported included that 61% found the sewage collection inadequate, and 68% complained about the lack of potable water at the site. However, 71% were satisfied with potable water being provided via tanks. While 80% considered the environment to be healthy, 73% expressed concerns about flooding caused by El Niño. Some residents also reported health concerns related to stagnant water, improper use of septic tanks, and accumulated rubbish, which are linked to diseases such as malaria, yellow fever, dengue, Zika, and chikungunya.

Most residents (70%) live on plot areas of 120m<sup>2</sup>, compared to the municipality's standard size for social housing plots of 72m<sup>2</sup>. Additionally, 30% were aware of the potential for agricultural production, and some reported applying this knowledge in their own gardens (See Appendix 4: Surveys and interviews, question forms, and Appendix 2: Summary of the Survey).

When asked about segregation, 79% of residents expressed that there was no segregation in the neighbourhood. However, interviews and observations indicated the presence of racial discrimination and bias against sexual diversity. It is also worth noting that several interviewees mentioned being unable to answer certain questions, stating that they were waiting for guidance from the neighbourhood authorities before they could give a response.

### *Photography*

Many photographs were taken during different study visits to the neighbourhoods. It was generally easier to photograph streets, parks, and public spaces than people; there are very few photographs of people from the investigation, and photos could only be taken in cases where consent was obtained. Due to the persecution of leaders involved in informal settlement formations, photographs could not be taken in the informal neighbourhoods from 2011 until the end of 2012.



Figure 19. A street in the Sergio Toral neighbourhood, with informal shops facing a main street.

### *Observations and field notes*

Observations of the neighbourhoods, community and public spaces have guided the development of the research. There were many visits to different informal settlements in the city, and more than 50 site visits were made specifically to the Sergio Toral neighbourhood. Visits to Sergio Toral lasted for between four to eight hours and included observations of the places as well as socializing with residents.

Field notes were taken during the visits. Rather than being organized in chronological order, these resembled lists of wonders or of unexpected things. Surveys, observations, and photographs were carried out/taken during the visits. These components have all been used as part of the triangulation process to statistically complement information and to corroborate or revise conclusions.

### *Interviews: In-depth, semi-structured*

According to Yin, the interview is one of the most important sources for case study information (Yin, 2009, p.106), and interviews have indeed proven crucial for information for the case considering that the 'truth' will probably be composed from different sources and illegal conduct not always explicit.

In-depth, semi-structured interviews were carried out with key individuals working in urban development in the formal sector. Seven individuals from academia were

interviewed; these included teachers and researchers from two universities in the city, and there was a focus on architecture and urban planning. Several of them were also working as consultants for the municipality. Additionally, seven architects and urban planners from the Department of Urban Planning, Mobility, Cadastral and Buildings in Guayaquil Municipality were interviewed. All of them were involved in projects related to municipal interventions in informal settlements.

Interview Period		# Days in the city	Interviewees	Classification
2010	Oct. 06 to Oct. 30	25 days	<b>Sergio Toral Neighbourhood</b> <ul style="list-style-type: none"> <li>• Leader and land dealer</li> <li>• Lawyer</li> <li>• Secretary</li> <li>• Resident</li> <li>• Resident</li> <li>• Resident</li> <li>• Resident</li> </ul> <b>Nigeria Neighbourhood</b> <ul style="list-style-type: none"> <li>• Leader</li> <li>• Teacher and psychologist</li> <li>• Salesian Father</li> <li>• Resident</li> <li>• Architect, municipal planning</li> </ul> <b>Municipality</b> <ul style="list-style-type: none"> <li>• Arch. Director Planning Office</li> <li>• Arch. Planning Officer</li> <li>• Arch. Planning Officer</li> <li>• Planning Officer</li> </ul>	LeadP LeadP LeadP Dwe Dwe Dwe Dwe Dwe LeadP ComKey ComKey Dwe Mun Mun Mun Mun Mun
2011	Apr. 29 to Maj 29	31 Days	<b>Sergio Toral Neighbourhood</b> <ul style="list-style-type: none"> <li>• 10 dwellers</li> <li>• Block leader</li> </ul> <b>Monte Sinai Neighbourhood</b> <ul style="list-style-type: none"> <li>• Leader and land dealer</li> <li>• 2 Leaders</li> <li>• 2 dweller</li> </ul> <b>Municipality</b> <ul style="list-style-type: none"> <li>• Arch. Director Planning Office</li> </ul> <b>Academia</b> <ul style="list-style-type: none"> <li>• Arch. Teacher, Researcher</li> </ul>	Dwe (10) LeadP LeadP LeadP (2) Dwe(2) Mun Aca
2012	Oct 15 to Nov 04	21 days	<ul style="list-style-type: none"> <li>• Informant &amp; vendor informal</li> <li>• Informant's wife</li> <li>• Owner of a stationary shop</li> </ul>	LeadP Dwe Dwe
2014	Nov. 09 – Nov. 29	20 days	<b>Sergio Toral Neighbourhood</b> <ul style="list-style-type: none"> <li>• Resident / Laundry</li> <li>• Dweller (help with surveys)</li> <li>• Dweller (help with surveys)</li> </ul> <b>Municipality</b> <ul style="list-style-type: none"> <li>• Arch. Planning Officer</li> <li>• Arch. Planning Officer</li> </ul> <b>Academia</b> <ul style="list-style-type: none"> <li>• Arch. Teacher, Researcher</li> <li>• Arch. Teacher</li> <li>• Arch. Teacher</li> </ul>	Dwe Dwe Dwe Mun Mun Aca Aca Aca
2015	Oct. 25 – Nov.13 (Seminar Cuenca)	21 days	<ul style="list-style-type: none"> <li>• Arch. Teacher, Researcher</li> <li>• Arch. Teacher, Researcher</li> </ul>	Aca Aca

Figure 20. List of interviews conducted

In-depth interviews were also held with key individuals who were living and/or working in the informal housing sector. Twenty-two in-depth interviews were

conducted with dwellers or residents, primarily from the three informal neighbourhoods Monte Sinai, Nigeria, and Sergio Toral.

Nine people with leadership roles were interviewed. These interviews were highly relevant for understanding how the neighbourhood is organized, and they have facilitated inductive deciphering of the components, people, and the roles of both tacit and explicit character in the organization (see Paper: for an explanation of the organization). Two of the interviewees held very top positions in the neighbourhoods Monte Sinai and Nigeria, and both emphasized the importance and good performance of Sergio Toral and expressed their desire to emulate it. Some of the interviewees were from among the elite in the neighbourhood organization, i.e., one of the land dealers, the top authority of the neighbourhood, a secretary, a lawyer, some block leaders, and one informant. Very few of them requested anonymity. One of the top leaders was a woman.

Interviews overview		
Aca	Academia	7
ComKey	Community key person	2
Dwe	Dweller	22
LeadP	Leadership Position	9
Mun	Municipality / Planning	7
<b>Total</b>		<b>47</b>
		Individual
		32
		In groups
		15

Figure 21. Overview of the interviewees.

In-depth interviews with these top neighbourhood authorities took on the character of guided conversations. I found that the top leaders felt it necessary to express that they were neither criminals nor illegals, presumably due to the political circumstances in the city, where there was both stigmatization and polarization. On the other hand, I, the researcher, needed to feel safe during the interviews, which were always conducted in their territories, as per my decision. I always arrived with a local driver who knew the area and whom I learned to trust. As a woman in a macho-dominated, Latino American society, I decided to ally myself with the neighbourhood secretary, who seemed interested in changing the concept of illegality in the poor neighbourhoods of Guayaquil and who seemed very loyal to her boss, the top leader of the neighbourhood.

The in-depth interviews were organized by items to facilitate the flow and to serve as a manuscript of sorts to assist me during the interviews (See Appendix 1: Surveys and Questionnaires). The interviews focused on both quantitative and qualitative issues such as land tenure, planning process, advantages and disadvantages of legal and illegal urban processes, and environmental and local heritage concerns, among other things.

The interviews were planned to a certain extent, both in terms of content and form, to establish safety and confidentiality for the interviewee and myself, the researcher. The guided conversations always took place in the neighbourhoods. Three occasions can be highlighted to illustrate the circumstances under which the conversations took place. On one occasion, the conversation took place in the bamboo house where the neighbourhood office was located (Sergio Toral). On another, it was held in an open public space where a canopy tent had been set up for neighbourhood festivities; this tent was exclusively used by the leaders (Monte Sinai). On the third occasion, the conversation took place whilst walking through the neighbourhood parallel to the estuary of the Guayas River (Nigeria).

The bamboo office became a lunchroom where the top neighbourhood authority, the secretary and I shared a lunch prepared by the secretary, as we had agreed. My driver and a couple of the top neighbourhood authority's bodyguards waited outside; I learned that this is customary. The leader of this neighbourhood himself lived in the formal city of Guayaquil. Bodyguards in these territories carried weapons.

The tent in Monte Sinai was more crowded than I expected. The top authority leader and five of his bodyguards were sitting in a circle in the shade, and my driver and I joined the group. All of the bodyguards were male, and some were armed, including the leader. I tried not to pay attention to the weapons. It was obvious that the top leader's position of power within the group was strong and well-defined. Apart from the top leader, very few participated actively in the interview; no one opposed him, and the bodyguards followed his orders to keep dwellers or others at a good distance from the tent. Fortunately, the tent was canopy-style, only a roof with no walls, and dwellers had a view of the conversation.

During the walk through the neighbourhood, along the estuary river, I was accompanied by an architect from the municipal planning office who was responsible for improvements to the Nigeria neighbourhood. I spoke with and interviewed two very important sources in this place: a single mother of three children (boys aged three- to seven-years-old), and a neighbourhood missionary priest.



*Figure 22. Interview with the Salesian priest who worked in the Nigeria neighbourhood. Photo taken by the architect from the municipality planning office, Guayaquil*

As the mother and I moved from place to place in the neighbourhood, she told me about her life and housing situation over the years. After almost seven years of living in a pole house on the water, she moved to solid land when her bamboo house was lifted and relocated to the new land orthogonally planned by the municipality. This new land, which lacks all infrastructure, is safer in terms of the climatic seasons of rain and drought and the El Niño phenomenon, but it presents economic challenges regarding food provision from the estuary.

The interview with the priest began with a visit to a prayer space where I spoke to the congregation. Afterward, the priest and I moved to the border of the river estuary for more privacy. The priest had not been officially appointed by his community, the Salesians, to work in this neighbourhood; instead, his work there was motivated more by his belief in helping families with their concrete needs beyond spirituality.

Interviews with staff working in the city's urban planning department always took place at their offices at the municipality building in Guayaquil, with the exception of the two interviews conducted with the architect working with improvements to the Nigeria neighbourhood, both of which took place in the neighbourhood.

Interviews with residents took place at or inside their homes or at their place of work, but mainly at the entrance to their houses or in public spaces like parks, streets or public laundries. The interview with the informant and his wife took place at their home as they required more anonymity.

A total of forty-seven in-depth interviews were carried out, all of them by me, the researcher. Interviews were recorded whenever possible and complemented with

ethnographic field notes. In some instances, recordings were paused to allow for off-the-record information.

### Documents

The documentation, which has been used as part of the triangulation process to corroborate information, included evaluations, statistics, maps and urban master plans, historical descriptions of neighbourhoods in the city, film documentaries and newspapers. Some of these types of documents exist in both formal or official versions and informal versions, such as a parallel version of urban master plans for the same area with two different approaches, or documents that are considered ‘legal’ in the informal settlements but were never registered with the formal municipal authorities. I also came across a revelatory document of sorts describing the dwellers’ rights and duties exclusively at the informal settlement of Sergio Toral. Figure 10a shows this document in the original language, and figure 24 shows the same document in translation. No such documents exist for formal neighbourhoods.

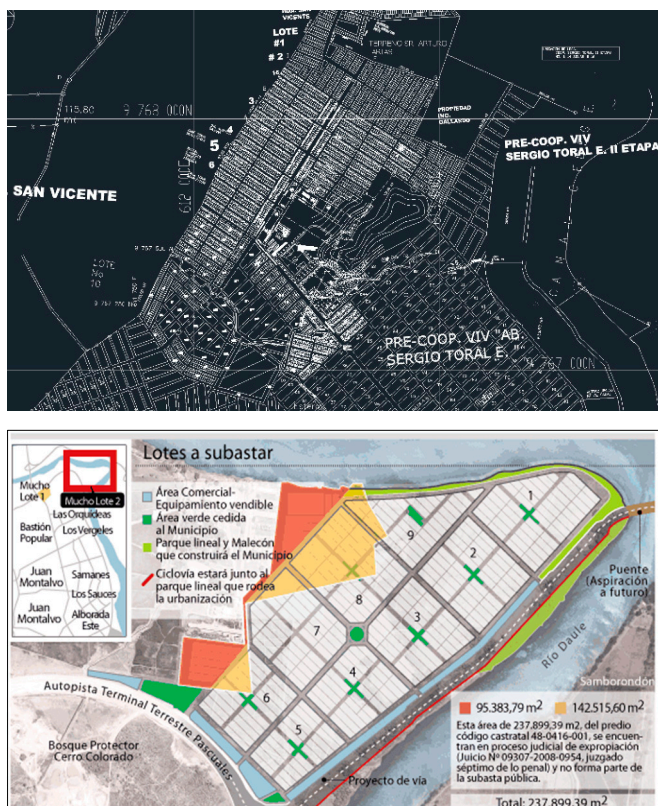


Figure 23. (a) AutoCAD drawings Urban project for Sergio Toral, Phase I and II, with plot sizes of 15m x 8m. Illustration provided by an architect of the informal neighbourhood, 2013.

(b) Urban project Mucho Lote, Phase II with plot sizes of 12m x 6m. Illustration provided by the municipality, 2011.

**PRE-COOPERATIVE "AB. SERGIO TORAL" PHASES I, II, III, IV  
"AB. SERGIO TORAL ERAZO" POPULAR LEADER**

Welcomes you as a prospective member to join this noble popular struggle.

**MEMBER DUTIES AND RESPONSIBILITIES**

- q) Prepare the plot within a maximum of 60 days after it has been allocated.
- r) Commit to registering the plot in the name of the woman in the household.
- s) Fence in the yard, build a septic tank 1 metre from the wall, and construct a bathroom within the first 60 days.
- t) Ensure the plot has a toilet and obtain approval of it from the office.
- u) Be willing to collaborate in community projects and participate in political support demonstrations.
- v) Loyalty and gratitude are priorities in this popular struggle.
- w) Stay up to date with payments.
- x) Keep the area in front of your house clean.
- y) Plant a fruit tree on your plot, at least 3 metres from each wall.
- z) Educate your children.
- aa) Pay membership dues.
- bb) Pay for electricity connection rights.
- cc) Inform the leader at AB Sergio Toral immediately upon learning of any theft, drug sales, or child abuse.
- dd) Mutual respect towards the leader, cooperative management, and the social events coordinator is essential.
- ee) Be collaborative with social events and with the coordinator.
- ff) There will be no refunds if the plot is forfeited.

**REASONS FOR EVICTION FROM THE COOPERATIVE**

- e) Theft, drug use or sale, violations of the law, gang activity, or men wearing earrings.
- f) Establishment of bars, billiard halls, or gambling areas.
- g) Disruptive behaviour inside or outside the home.
- h) Keeping pigs on the property.

**ADDITIONAL REASONS FOR EVICTION**

- e) Theft committed by the member or any family member residing on the property.
- f) Sale or consumption of drugs.
- g) Committing crimes such as assault or abuse.
- h) Failure to reside on the allocated plot.

Our desire is that you and your family feel comfortable in this cooperative.

It is our shared responsibility, as members and leaders, to work together to achieve better conditions for the cooperative, secure necessary infrastructure, and maintain an atmosphere of peace and tranquillity for the benefit of all residents.

(Security is not a luxury; it is a necessity.)

**WELCOME TO THIS PEOPLE'S STRUGGLE  
"AB. SERGIO TORAL"**

*Figure 24. Dwellers' rights and duties at Sergio Toral neighbourhood.  
(Translation of figure 7a by the author)*

The written neighbourhood rules for Sergio Toral were first shown to me by one of the residents, and I later I received a copy of the document from the neighbourhood secretary. I found no similar document in any other neighbourhoods, formal or informal. The rules set out for formal neighbourhoods relate to property, taxes, and construction specifications, but do not include guidelines for everyday life, such as planting fruit trees, educating one's children, collaborating in community projects, participating in political demonstrations, or maintaining loyalty and gratitude toward the neighbourhood and its creation, which is described as a people's struggle. Sergio Toral however has very clear rules about what leads to expulsion from the neighbourhood.

### *Ethical concerns*

With regard to ethical concerns, various precautions were taken to ensure the confidentiality and safety of the interviewees. Some interviews were conducted in groups, although this could introduce potential bias. For additional security, bodyguards accompanied certain interviewees. During some interviews, particularly with more vulnerable residents, there were instances where participants expressed discomfort about answering specific questions, citing concerns that the answers might provoke conflicts with neighbourhood leaders or lead to personal difficulties. This might have affected the material to some extent. To protect interviewees' identities, faces in photographs were blurred, and individuals were identified by their roles rather than by their names. Prior to disseminating any information, explicit permission was always sought from the interviewees, with clear explanations provided about the nature of the research and how the collected data would be used. This transparency was critical to establishing trust and ensuring informed consent.

The students from the Santiago de Guayaquil Catholic University who assisted in the research were supported by faculty members and local individuals familiar with the dynamics of the neighbourhoods being studied. We – both teachers and students – travelled together using university-arranged transportation, which ensured safety during fieldwork. The students were also allowed to use the collected data, observations, and experiences for academic purposes in my courses, which were designed to encourage research in such contexts.

A local guide and/or driver was always present for my security and to ensure to that I could move freely within the neighbourhoods. Throughout the research, I contacted and worked with two different people who accompanied me during fieldwork in the informal settlements, helping foster trust between me and the dwellers. This arrangement was made in response to safety concerns raised by residents of formal neighbourhoods and personal advice received regarding potential risks. The Nigeria neighbourhood is known for violence and crime, and there were significant safety concerns. I heard gunshots on one occasion during

fieldwork in Sergio Toral, and I later learned that there had been a murder; this underscores the challenges of conducting research in such environments.

Some interviews, particularly those with land dealers, land merchants, and top neighbourhood authorities, were extensive and they were occasionally punctuated with social moments, such as sharing refreshments for relief from the heat, or having lunch together. In some instances, interviewees requested that some additional information remain 'off the record', preferring not to have certain details included in the official record or in the study. These requests were respected throughout the research.

Whether or not to anonymize the neighbourhoods in this study was a significant ethical concern discussed with my tutors. After careful deliberation, I decided against anonymizing them. As the neighbourhoods are already widely recognized in official municipal documents, media outlets, social platforms, and academic publications, it would be difficult to outline the basic characteristics of the neighbourhoods and maintain anonymity without compromising the clarity or relevance of the study. Retaining the real names of the neighbourhoods is intended to promote accessibility and contribute to a more informed understanding of these areas and the specific neighbourhoods, thus facilitating further research. The privacy and dignity of the residents were nonetheless consistently prioritized and safeguarded throughout the research process.

### *Summary of papers*

This licentiate dissertation consists of three papers. Two focus on the case studies conducted in Guayaquil, Ecuador, which are the main focus of this research, and one examines cases in Dar es Salaam, Tanzania. These papers explore various aspects of informal urbanism and aim to contribute to the broader understanding of urban complexity.

**Paper I:** 'Informal but Planned Settlements – A case in Guayaquil'. Published in *CIB – International Council for Research and Innovation in Building and Construction*, 2011.

This paper presents the case of the informal settlement Sergio Toral II, which was constructed in just four years as a continuation of Sergio Toral I in Guayaquil, Ecuador. The ordinal numbers accompanying the name reflect the development phases of the neighbourhoods; the first was in the 1990s, and the second began around 2006. This progression highlights the growth and transformation of informal settlements over time. The paper delves into the underlying logic of this informal yet planned settlement and aims to extract key insights and lessons that could contribute to more effective and harmonious urban development processes in other developing countries. By no means random, the informal settlement was formed as the result of organized and collective management, which was driven by careful planning and precise execution. While informal in nature, this planning was carried

out with remarkable discipline, revealing that informal settlements can be characterized by a high level of organization, despite the lack of formal recognition by authorities. The study emphasizes that even in the absence of official plans, communities can organize themselves effectively, creating urban environments that are both functional and resilient.

Through observations, in-depth interviews with municipal town planners, land dealers, and community leaders, and questionnaire-based surveys conducted with the residents, the study reveals that within just four years, 1 500 families who were classified as poor or very poor were able to establish their neighbourhood independently of the municipal authorities and outside the established urban boundaries. This rapid and independent development showcases the resourcefulness and agency of marginalized communities in the face of limited support from official urban planning processes.

The paper also investigates the organizational structure of the informal settlement, examining how collective management is planned and executed under community leadership. It highlights the active participation of residents in both informal and formal sectors, demonstrating that the successful creation of informal neighbourhoods is not solely based on informal actions but also involves dynamic interaction between various sectors of society. This process of community involvement and management plays a critical role in the formation of informal neighbourhoods, as residents work together to create a sustainable living environment.

**Paper II:** ‘The Role of Tactical Practice and Tacit Knowledge in Informal Neighbourhood Formation – Two cases in Guayaquil, Ecuador’ (forthcoming).

This paper presents two informal settlements of the city of Guayaquil, presented chronologically to highlight the accumulated knowledge in the formation of informal settlements in the city. The oldest of the informal settlements, Nigeria, developed during the 1980s, and the most recent, Sergio Toral (Phases I and II), started developing in the 1990s. The paper uses these two cases to shed light on the tacit knowledge developed and accumulated in the formation of the neighbourhoods. The tactical actions in the first case evolved into strategic approaches and led to improved regulations in the second case.

The study includes observations and semi-structured interviews conducted in Guayaquil between 2010 and 2015. The interviews were carried out with high-level decision-makers at both the municipal and neighbourhood levels, regular residents of the community, and academic researchers. The findings discuss the strategies and tactics employed in the studied neighbourhoods, focusing on aspects such as urban morphology, administrative management, gender sensitivity, skill development among residents, and territorial dimensions that contributed to the formation of informal neighbourhoods.

The paper presents the strategies and tactics underlying the formation of the studied neighbourhoods, which result from everyday practices such as the mimicry of the orthogonal morphology found in formal neighbourhoods within the city, the residents' perception of how their productive work conditions benefit the neighbourhood, and the development of a complex administrative management system (the focus of the first paper), and more. The paper utilizes terminology commonly used in urban studies and typically associated with formal neighbourhoods, such as production of space, taskscape, and territoriality, to explain the conditions surrounding the formation of informal settlements in this particular city.

**Paper III:** 'The Power of Informal Settlements – The Case of Dar Es Salaam, Tanzania. Published in *Planum – The Journal of Urbanism*, 2013.

This paper reflects on the significance of maps in urban planning and the implications for cities that exist within a 'non-existent maps context', where the power of decision-making lies largely with the residents themselves. It emphasizes that the power of maps derives from their factual nature: maps offer objective analysis and lend credibility to discussions, particularly in urban planning. Including informal settlements on maps acknowledges the presence and needs of marginalized residents and also creates an opportunity for the formal sector to learn and potentially benefit from the dynamics of informal spaces.

The paper also explores the public spaces of informal neighbourhoods in Dar es Salaam, where it presents and discusses three key design concepts extracted from the city's informal settlements: territoriality, liminality, and seasonality. These concepts offer valuable insights and represent potential tools for designing public spaces in cities of the Global South. The discussion draws on a combination of literature, theoretical framework, observations, and interviews from a field study conducted in March 2012 during which experts from the Tanzanian Housing Ministry, NGO professionals, academics, street leaders, and community members from the settlements of Manseze, Bugurundi, and Mlalakua were consulted to provide a comprehensive understanding of the role of public space in these informal communities.

## 4. Results and Discussion

I have come across numerous important works of research on informal settlements that describe the phenomena from a descriptive critical or negative perspective, where the focus is frequently on issues such as poverty, marginalization, insecurity, environmental degradation, and lack of governance. Some view informal settlements as urban dystopias and symbols of global inequality – marked by extreme poverty, disease, exploitation, and control by criminal organizations (Davis, 2006) – rather than as spaces of opportunity. In this view, they produce a ‘surplus humanity’ with little hope for social mobility. Some have described informal settlements as ghettos and urban peripheries that reinforce social exclusion and perpetuate cycle of poverty; as stigmatized urban fragmented and segregated spaces that often lead to crime and violence, and as gated communities without opportunities (Wacquant 2000, Caldeira 2000).

There are, however, other researchers that present informal settlements with a focus on their virtues. John Turner makes a tipping point with his investigations in Lima, Peru, declaring that informal settlements are not problems but solutions that provide affordable housing and allow residents to shape their own environments (Turner, 1976). Some researchers also emphasize the incremental and self-organized nature of these communities, highlighting their capacity for innovation and adaptation through the focus on community-driven solutions (Mitlin et al., 2012; Gilbert, 2020; Dovey 2011, 2012, 2020).

In my research, I also assumed a constructive perspective when trying to understand and learn from informal settlements, looking into spatial logic in the production of the neighbourhoods and the social dynamics of informal settlements, on how informal settlements function as complex adaptive systems.

Building on a preliminary overview of several informal settlements in Guayaquil and employing case study methodology, this licentiate research mainly focuses on the Sergio Toral neighbourhood, selected for its unique characteristics, such as being known as an organized and safe place to live, being free from vandalism, and serving as an example of effective neighbourhood management both during its formation process, its everyday functioning, and later formalization. Other informal neighbourhoods look to it as a model to follow. Sergio Toral has proven valuable in understanding the dynamics of informal settlements in the city. Through visual observations, citizen perceptions, and discussions with urban planners, as well as

interactions with dwellers and top leaders of similar settlements, it became clear that Sergio Toral stands out as a ‘revelatory case’. These observations suggest that the structure and social dynamics of the neighbourhood offer important insights into the broader processes of informal settlement formation and development in Guayaquil. Other neighbourhoods such as Nigeria, are used to clarify and reinforce characteristics of Sergio Toral, to explore the phenomenon of tacit knowledge; some comparisons are also made with informal settlements<sup>14</sup> in Dar es Salam.

The key findings indicate that, while similar settlements face common challenges, the characteristics of Sergio Toral – ranging from its spatial organization to its social fabric– offer valuable lessons that could inform urban planning and policy decisions for other informal settlements in the city. Specifically, these lessons pertain to community organization, the use and understanding of territory, the concept or way of understanding what a neighbourhood is, as well as the notion of home within the conditions and opportunities offered by the city.

Four theoretical terms have been used to explain the phenomena observed in the process of understanding and learning from informal settlements: tacit knowledge, the practice of everyday life, the production of space, and territoriality. While many other theoretical concepts could have been included in the study, these four were selected for their particularly relevance to the empirical findings. These concepts are not only theoretical tools but also lenses through which the practical realities of informal settlements may be analysed and better understood.

The valuable lessons learned from this study are summarized in the following points, which highlight key insights and takeaways from the research findings:

*The organization of the community plays a crucial role in the formation of neighbourhoods.*

The study highlights the important role that an organized community plays in the formation and evolution of neighbourhoods. The organizational charts (See Figures 25 and 26) discovered in the Nigeria and Sergio Toral neighbourhoods, reflects the wealth of tacit knowledge accumulated by the community, where neighbourhood-building activities integrate diverse actors that operate both inside and outside the neighbourhood. The development of the neighbourhood is then determined by the relationships between e.g. land leaders and cooperative members and neighbourhood dwellers, as well as by the actions of the community and the interventions of external entrepreneurs. These relationships are determined by the accumulated knowledge on the daily practices of informal residents, combined with the shrewdness of land merchants and the authorities’ weaknesses. Over time, the activities have been made effective by the refinement of strategies and tactics, creating an organized community with a complex but functional administrative framework.

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<sup>14</sup> The term ‘unplanned settlement’ is more used and accepted in Dar es Salaam.

Furthermore, the study highlights the transformative potential inherent in making neighbourhoods in such ways, where actors with traditional reproductive roles are transformed into productive contributors. This is the case in the neighbourhood Nigeria, where the need to repair bridges led to the emergence of artisans specialized in bridge repair and leaders who organized the community. Similarly, the establishment of the new informal neighbourhood Sergio Toral led to the strategic organization of road builders and repairers, street lighting electricians, neighbourhood guards, and others to efficiently transform the area into an urban territory.

The study has revealed the crucial role of tacit knowledge, which encompasses skills, habits, and intuitive solutions developed through practice and experience during the formation and daily operations of the neighbourhood. The neighbourhoods studied have demonstrated that tacit knowledge exists, and that this knowledge has been developed through experience, with knowledge accumulating over time. Strategies and tactics have been developed through the use and transformation of everyday life experiences and the transfer of practices from one neighbourhood to another. The neighbourhoods Nigeria and Sergio Toral exemplify this process for the formation of informal settlements developed through the continuous efforts and energy of residents, guided by community leaders. (See Paper I). In the Nigeria neighbourhood, bridges symbolize the ongoing process of construction and repair, particularly after the rainy season. In Sergio Toral, gradual consolidation of streets is evident through measures such as tamping, gravel filling, and the addition of street lighting, along with the construction of schools, kindergartens, internet access booths, and other civic facilities. It is also noteworthy that in addition to providing housing, these neighbourhoods also offer employment opportunities within their administrations as a means of making housing more affordable and meeting the demands for living space.

Within the concept of a neighbourhood as a community that 'comes together' under shared challenges and common rules, this particular neighbourhood is notably homogeneous, with its formation and development progressing simultaneously for all residents.

The city of Guayaquil comprises both formal and informal territories that coexist in parallel, reflecting the stark inequality characteristic of many Latin American cities. In informal settlements studied in other contexts – such as those in Dar es Salaam, Tanzania – formal and informal households often live side by side. Families with the means to, for example, build pathways or install lighting frequently do so, thereby benefiting their neighbours either intentionally or unintentionally. As a result, the urban fabric of Dar es Salaam appears more diverse and socially integrated.

Public spaces are arranged in an orthogonal grid in a territory that is, of course, intensively exploited to accommodate the greatest number of families and obtain

the greatest number of payments. In neighbourhoods studied in Dar es Salaam, where the occupation of informal land is organic and the growth spontaneous, there is a clear differentiation in the concept of public space; the periphery of the neighbourhoods is very public and diverse, and towards the interior of the neighbourhood it has a semi-private public space character; there is even a pastoral environment where very private domestic activities take place (see Rasmussen 2013).

*Territory is a tool used in many ways to achieve the formation of the neighbourhood*

Neighbourhood leaders in Sergio Toral carefully consider the physical conditions of the territory to facilitate the formation of a neighbourhood. To establish the area strategically, the leaders begin the localization in a select area that is partially within and partially outside the urban boundary decreed by the municipality. The occupation begins on the periphery by cordoning off the appropriated land and simultaneously offering some of the residents on the periphery work watching over the land and the development of the new settlement. The neighbourhood leaders set clear rules on the occupation of the lots and communicate them to settlers; these range from aspects such as the construction of houses, the installation of septic tanks and the planting of trees, with specific guidelines for their implementation in defined time and spaces (60 days for the installation, lots of 9 x 15 m<sup>2</sup>). The urban plan adopts the orthogonal design and dimensional standards established by the municipal urban development plan of Guayaquil, a strategy intended to facilitate formalization of the informal neighbourhood and avoid that the lots will change. Such an approach leverages the influence of families who already have a 'home' and are determined not to be evicted, even if their homes are deemed illegal.

The orthogonal urban layout and the clear land occupation rules of the neighbourhood currently seeking legalization, along with a community willing to follow self-imposed regulations, have been key factors in shaping this type of neighbourhood in the city. Land dealers are interested in maintaining a constant flow of new clients and emerging urban developments in the land market business. They recognize that their interventions in informal settlements will be followed by a process of formalization of the neighbourhood.

Lessons drawn from the challenges posed by Nigeria's landscape – shaped by organic estuarine patterns, where formalization strategies are difficult to implement – are reflected in the rigidly orthogonal land occupation pattern of Sergio Toral. This strategy has been developed in response to lifelong learning and experience with the challenges and tactics involved in previous processes of formalizing informal settlements in the city.

In addition to strategies that use the physical characteristics of the territory, the conception of the territory in terms of its social, dynamic and power relations is

essential for the formation of the neighbourhood. Leaders use territory and the occupants thereof as an important object in political negotiations with municipal authorities: the neighbourhood is home to a population to which the municipality does not offer housing solutions, and the municipality is aware of what that can mean politically and in terms of potential votes. As mentioned earlier, Sergio Toral developed as a result of the daily efforts of its inhabitants, guided by community leaders and complicit agreements with the municipality and private companies; the territory is thus produced through daily practices and how these continually change in response to new forms of control, resistance or adaptation (Kärrholm, 2007, p.439). When land dealers intrinsically manage territory as capital, as an asset and in its temporal and spatial dimensions, the informal settlements form with a different dynamic than the formal neighbourhoods of the city. Thus, the interaction between tactics and strategies may accelerate or decelerate the processes of neighbourhood formation; for example, in Guayaquil, it is common for informal neighbourhoods to join together to demonstrate against state housing policies with roadblocks or by occupying new land. The phenomenon of territoriality through space, time and energy and their tactics and strategies must be included in current debates related to contemporary urban planning and informal urbanism.

The neighbourhood Nigeria, built before Sergio Toral, revealed itself as particularly important along the way. While its particular features were unremarkable, it emerged as significant through its role in supporting key observations about the development of informal neighbourhoods. The findings indicate that the formation of such neighbourhoods in the city is neither a random nor isolated phenomenon, but instead reflects a broader progression driven by an accumulated body of knowledge passed down over time. The research showed that these neighbourhoods evolve through an extensive trial-and-error process, where successive adaptations to changing circumstances gradually lead to the establishment of strategies that organize and sustain human settlements. Interviews, questionnaires and observations highlighted how these strategies were refined over time, leading to the development of what may be described as a 'production system' of informal settlements. Shaped by local experience and collective problem-solving, this system produces discernible patterns in settlement growth. The findings suggest that the informal neighbourhoods of Guayaquil follow similar trajectories and are driven by local knowledge and the adaptation of urban planning strategies. These strategies include the aforementioned relationship to neighbourhood organization and the way of understanding and using the territory and its population, as well as the components such as security guarantees, transportation, digital communication and legal services, and the prioritization of the female gender, as women are heads of households and therefore preside over the property and credits (see Rasmussen 2011).

Temporality (and the tactical betting on time) in these settlements is used as a tool to compel the government to formally develop territory and/or to create and expand

new territory. The morphology, occupation, and plot size in Sergio Toral illustrate this. The Guayaquil cases may be viewed through the lens of contested political territory. Land dealers and residents alike use both territory and time to exert pressure on authorities and to consolidate or provide homes for those who would otherwise lack access. For example, land dealers use reliable voters as leverage during democratic elections on the presidential as well as municipal level; they negotiate with politicians and informally agree on land occupation processes and infrastructure development, such as road construction. Land dealers also negotiate with private enterprises on infrastructure and services, e.g. roads, water supply, and transport services. They have strategies to control the neighbourhood through resources like water, electricity, and security services, thereby managing prices and delivery (Sánchez, 2015, p.32; interviews, 2010 and 2014). Many parameters are thus intricately assembled, first to achieve territorial occupation, and later to develop and maintain the neighbourhood. Time is continuously negotiated in these efforts to secure accessible land and affordable housing for the poor.

Beyond the strategies for the use of the physical characteristics of the territory, the concept of the territory in its social dimensions has far-reaching implications for the formation of the neighbourhood. The leaders use the territory and its occupants as an important object of political negotiation with the municipal authorities: the neighbourhood welcomes a population to which the municipality does not offer housing solutions, and the municipality understands that this population may represent votes.

*Understanding that a neighbourhood is not just a cluster of houses*

Top neighbourhood leaders envision that the informal neighbourhood will become formal in the future, and they thus manage the neighbourhood as a social and productive object and consciously drive the settlement's evolution toward becoming a neighbourhood rather than simply a conglomeration of houses. Thus, the notion of spatial production (and reproduction) and its insistence on the interconnection between social space, social energy and time, allow us to understand and explain why the informal sector is capable of generating more housing than the formal sector. Land dealers do not merely negotiate the static sale of land; the product they sell is dynamic and able to transform into a formal neighbourhood. The business and the product must thus be framed in a social space that works, with inhabitants who are willing to work to build their neighbourhood as a community. Neighbourhood leaders understand the importance of the neighbourhood's functionality and the residents' need for services, and they build community spaces such as laundries, schools, football/soccer fields, internet cafes and offices for administrative consultations to satisfy the community. Services such as education, electricity, water and transportation are, of course, also part of the business.

The spatial production of Sergio Toral as an informal neighbourhood is understood as a socio-spatial phenomenon, a social territory, and space is understood as a

malleable active good. The informal neighbourhood develops and territorializes in a symbiosis of space, time and energy. The case studies also show that production efficiency increases when a neighbourhood is understood as an urban community rather than merely a group of houses.

*Quality in the conditions of Guayaquil, a largely informal city*

Like other informal neighbourhoods in Guayaquil, Sergio Toral provides housing to families who would otherwise be unable to access comparable opportunities. Land dealers and neighbourhood leaders sell lots on credit and allow houses to be built without imposing the strict requirements on the quality of materials that would be present in formal neighbourhoods. This suggests that the quality of housing may be understood in terms of accessibility, with the house and neighbourhood viewed as products that improve incrementally over time, supported by a community that works toward that development. In this context, the concept of 'home' embodies the dynamic potential of an evolving possession. The microcredit system, stabilized by local leaders and managed at the neighbourhood level, makes housing affordable for families who are excluded from the credit schemes offered by the formal housing finance sector; the system acknowledges the diversity of users and the instability of the informal economy.

Faced with the inaction of or lack of interest from authorities, neighbourhood leaders often pressure the municipality to implement improvement and formalization programmes after an informal neighbourhood has been established with residents and basic, precarious infrastructure. The informal neighbourhood thus becomes a catalyst for the creation of urban spaces that otherwise might not have come into existence. As mentioned earlier, the study of neighbourhoods in Guayaquil, and specifically Sergio Toral, has shown that the informal housing sector has delivered five times more homes than the formal sector in the same timespan (see Rasmussen, 2011).

This raises the question of whether the quality of housing may be discussed in terms of accessibility rather than its initial condition. Driven by a community working toward incrementally increasing value, the houses and the neighbourhood can improve over time. Rather than static and finished, the 'home' is a dynamic possession in progress.

Because the land tenure is insecure, residents of the informal neighbourhood do not dare to build more solid houses or use durable materials. The temporary nature of bamboo houses makes them the best alternative when a family's primary priority is to occupy land and establish a home and a neighbourhood in a short time. A bamboo house can be moved to a new territory if necessary. Studies of other settlements, for example, in Dar es Salaam, show that the tradition of granting land occupation rights under customary land laws for 33, 66, or 99 years (Kironde, 1995, p.80) ensures that

families will not risk unexpected eviction. Consequently, they typically construct houses using perforated cement blocks, adobe, or rammed bricks.

Concerns about democracy and human rights are particularly pressing in the production of informal settlements. For instance, the unequal power relationship between land dealers and dwellers deprives people of the freedom to make decisions about their own lives, especially regarding land ownership and housing. Land dealers often control the terms of access to housing, dictating prices, conditions, and the timeline for payments. This lack of freedom highlights broader systemic issues. When individuals cannot exercise control over fundamental aspects of their lives, it reflects a deficiency in democratic processes and equality as well as the pervasive presence of poverty. Limited freedom forces families into a cycle of dependence and vulnerability, where their capacity to envision, or work toward, long-term stability is restricted.

The absence of secure land tenure exacerbates this problem further. Without legal recognition or protection, residents live with the constant threat of eviction or exploitation. This precarious existence undermines their ability to advocate for better living conditions or invest in durable housing and perpetuates a cycle of marginalization.

To address these issues, informal settlements must be acknowledged as more than simply a byproduct of urbanization but also a symptom of deeper inequalities. Efforts to improve these neighbourhoods must go beyond physical infrastructure and ensure that residents have access to democratic processes, fair treatment, and opportunities to participate in decisions that shape their futures. Tackling these structural imbalances is essential to the effective alleviation of poverty, and for human rights to be upheld in the context of urban development.

## 5. Conclusions

The study of Sergio Toral, and the comparisons of it and other informal neighbourhoods, highlights the transformative potential of organized communities in urban development. Driven by accumulated local knowledge and adaptive strategies, informal settlements in Guayaquil contribute significantly to housing production and frequently outperform formal sectors in terms of the quantity of housing units produced. Key findings emphasize the importance of community organization, tacit knowledge, and spatial strategies, which enable these neighbourhoods to evolve incrementally and for informal spaces to transform into cohesive urban territories.

The formation process of these neighbourhoods has been explained, from the initial urban land occupation at the urban periphery, to after negotiations by land dealers and the legal owner of the land following by subdivision of plots to host future dwellers. This subdivision is planned and carried through with intensive work by the dwellers guided by the neighbourhood's organizational structure, including land dealers, top neighbourhood leaders, etc., as well as strategies and tactics developed as accumulated, tacit knowledge. This knowledge is tangible, manifested in e.g. rules of conduct for the neighbourhood dwellers, physical, negotiable spaces for social control as the common laundries, or new, informal transport infrastructure created specifically for the settlement. That knowledge is also manifested in the non-legal 'land property titles', which only have value inside the neighbourhood.

This licentiate dissertation discusses the process of land occupation and how urban families from the same city, often young families, or economic migrants fleeing violence from other regions of the country, settle there in their search for affordable homes. The community's organizational system determines the efficiency of the new neighbourhood's formation, as does the availability of credits options and flexible payment plans tailored to the fluctuating economic circumstances of families who primarily depend on informal economies. The community comprises members with skills in leadership, surveillance, construction, administration, transportation management, and other areas; these skills are cultivated through the processes of neighbourhood construction.

This community organization operates in the daily, intrinsic life in the neighbourhood, shaping and maintaining it. In addition to internal operations, the neighbourhood engages with external actors such as planning advisors, machinery

rental companies, and vendors of repurposed construction material, creating economic benefits. The top leaders of the neighbourhood negotiate and establish agreements with municipal authorities, with dwellers representing guarantees of votes for one political party or another. However, these negotiations may falter when political promises are not fulfilled, leaving residents vulnerable to systemic inequalities and cycles of marginalization.

The following illustrations depict the formation and organization of informal settlements in the city. Neighbourhoods such as Nigeria have a simpler and more intrinsic character, whilst Sergio Toral is notably complex. It features a diffuse boundary between the informal area ‘inside’ the neighbourhood and the formal city ‘outside’ it. The organization of Sergio Toral is more intricate, incorporating a dynamic structure that extends beyond housing-related infrastructure to include social infrastructure such as schools, community laundries, transportation routes, and credit facilities (see Paper I).

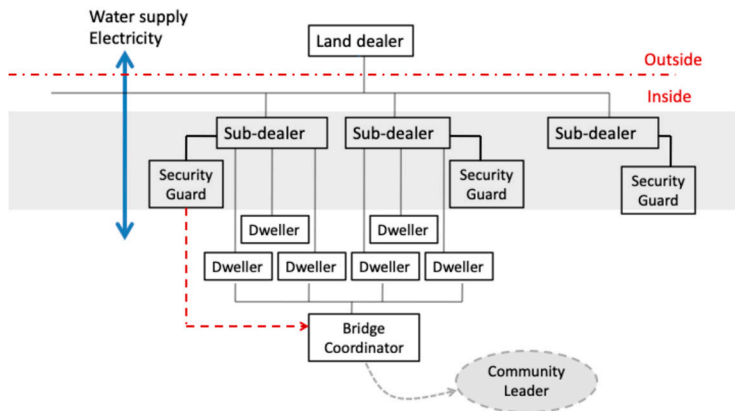


Figure 25. Organizational chart representing the community in the neighbourhood Nigeria. (Figure by the author)

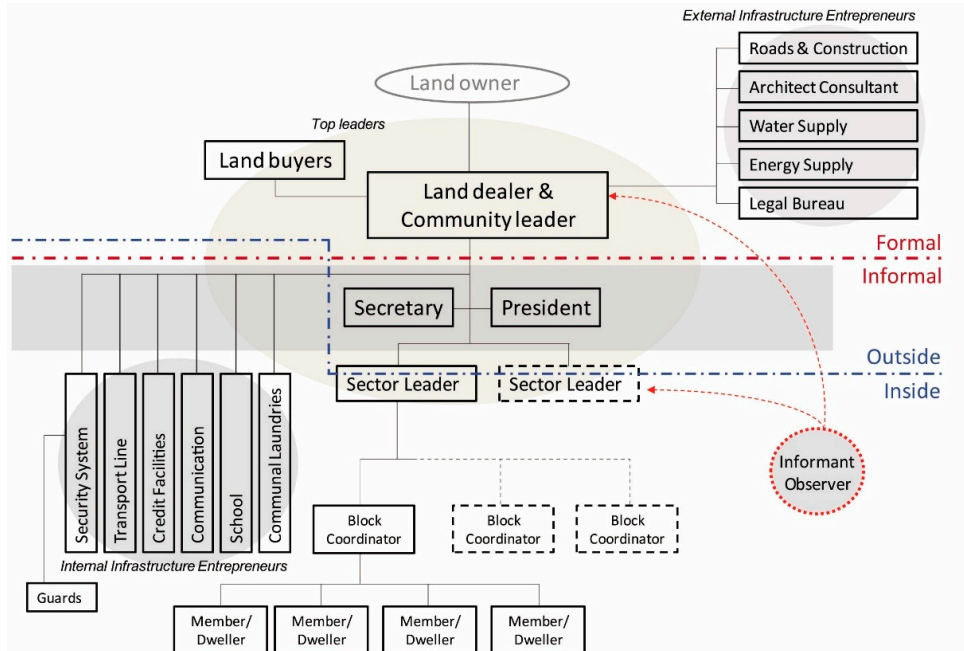


Figure 26. Organizational chart representing the community in the neighbourhood Sergio Toral. (Figure by the author)

Formation of the neighbourhood aims to initiate an extensive occupation of territory, and the occupation of lots is thus strategic and starts on the periphery. Some civil facilities are located centrally, such as the school, whilst others are located within a logical radius for their users, such as laundries and telephone and internet booths.

Importantly, the concept of home has a dynamic connotation. It is a possession in a continual process rather than a finished product, and this is related to the rapid occupation of the land and the accelerated formation of the neighbourhood and the community. The first, bamboo houses have the purpose of occupying the land and rapidly offering a ‘roof’ for new families. This prefabricated type of house is easy to install and assemble without much construction expertise. Instructions on how to build, but also on how to use and behave in the neighbourhoods are necessary; Sergio Toral has set out concise and explicit guidelines that are easy to understand and follow, and they have contributed to the neighbourhood performing well in relation to other informal settlements.

The neighbourhoods studied represent more than a collection of homes, streets, and facilities: they are living systems shaped by their residents’ ingenuity, resilience, and collective efforts. They function as organizations that not only provide housing but also assume some welfare responsibilities typically associated with government

institutions. They demonstrate that informal settlements, when organized and empowered, are not merely spaces of survival but engines of urban innovation and social transformation.

These informal neighbourhoods offer undeniable advantages, such as affordable housing, employment opportunities, and natural community integration. There are, however, challenges. Issues of discrimination, insecure land tenure, and limited democratic freedoms persist, alongside the precarious balance of power between community leaders and political actors. Nevertheless, the transformative potential of these neighbourhoods lies in their ability to combine social cohesion, productive organization, and adaptive strategies to address urban challenges.

It is worth reiterating that for many families, housing opportunities in informal settlements are the only viable route to acquiring a home. The process is economically feasible as well as straightforward, with families being guided through the purchase of plots and houses and receiving advice on how to proceed. The credit system is simple, and the absence of down-payments or deposits makes homeownership accessible to low- and very low-income families. Residents participate actively in community activities, as well as in the building and maintenance of the neighbourhood, from the very beginning. In some cases, they gain access not only to housing but also to employment opportunities and skill development. In this sense, integration into the community occurs naturally. However, as discussed, issues of discrimination persist. The surveillance structure in Sergio Toral includes both visible guards and anonymous informants and has proven effective; residents report feeling secure. Access to credit extends beyond housing and neighbourhood improvements in physical terms: it also facilitates access to welfare services, such as schooling for children and family legal advice, the latter often offered free of charge.

While the study conducted for this licentiate dissertation has not focused primarily on the disadvantages, it is important to mention that concerns about democracy and human rights are particularly pressing. Power relations between land dealers, leaders and dwellers are imbalanced, and the democratic processes and equality are deficient. The neighbourhood functions as a parallel society, an enclave with its own rules, non-legal documents, and a community that relies on local leaders for navigating political decisions, irregular service provision, insecure land and housing tenure, and the persistent threat of eviction by municipal authorities. Poverty is pervasive. Living conditions in illegal settlements are always uncertain, regardless of one's position in the social structure of these settlements.

Urban planners and architects can draw knowledge from the shortcomings and successes of informal settlements and their processes.

Concepts such as territory, neighbourhood, house/home and civil facilities have dynamic connotations, and they should be developed and used ethically to achieve formation of the neighbourhood. A territory is malleable over time, and with the

dwellers' relationship, inclusive and perhaps more sustainable changes may be made. A neighbourhood delivers housing and may also deliver welfare services and community cohesion; a house/home is not a finished product, but a possession in a continuous process. Civil facilities possess the power to unite or disintegrate the relationships between dwellers and neighbourhood authorities.

Informal settlements in Guayaquil are unquestionably catalysts for the city's urban growth. They accelerate the process of delivering homes that the government is not able to deliver, and studying and understanding them is therefore a necessity there, as well as in the context of other similar cities, to develop new inter-exchanging ways of working to bridge the gap between informality and formality.

Settlements should not develop in isolation from the broader urban environment. Despite various challenges, the informal neighbourhood of Sergio Toral has actively taken advantage of opportunities generated by the existing urban context. These opportunities should be thoroughly examined before any planning or policy decisions are made. Sergio Toral understood and acknowledged the importance of relationships for emerging neighbourhoods, effectively leveraging the city's existing formal structures, including infrastructure and governance. These relationships are multifaceted, encompassing political dynamics, the integration of new neighbourhoods into established urban frameworks, the reuse of discarded materials, and the application of pre-existing knowledge – whether through imitation, adaptation, or implementation of new knowledge.

One must not forget that the organization of the community and its dwellers may be positive actors that play a crucial role in developing the city. The community should thus be democratically engaged in formation processes and the maintenance of neighbourhoods, with a long-term perspective.

# Epilogue

## *Guayaquil and Sergio Toral today*

Ecuador, and the city of Guayaquil in particular, were hit hard by the Covid-19 pandemic. Hospitals, especially in Guayaquil, were overwhelmed with patients, and the city became the epicentre of the outbreak in the country. The death toll was high, and health facilities struggled to provide basic care. Economic hardship also deepened; unemployment rates skyrocketed, and many businesses were forced to shut down due to restrictions (Alava et al., 2021).

In the years following the pandemic, violence escalated in Guayaquil, with murder rates reaching record levels. In 2022, Ecuador experienced its highest homicide rate in over a decade, largely attributable to the growing power of narco-trafficking organizations. These criminal groups have fuelled drug-related violence as well as extortion and kidnapping. Organized crime in the city has increased, with gangs vying for control over drug trafficking routes, exacerbating insecurity (Garcia, 2023; El Universo, 2024; Brown, 2025).

The political landscape in Ecuador remains unstable, with frequent changes in leadership and challenges in implementing effective public security policies. President Daniel Noboa's administration, which took office in 2023, has faced mounting pressure to address both the economic and security crises. Despite efforts to combat organized crime, the influence of drug cartels has undermined the government's authority, leading to growing public distrust and unrest. As the largest urban centre and key commercial hub, Guayaquil has been disproportionately affected by these challenges, further widening the gap between the city's wealthier zones and its most vulnerable neighbourhoods (Phillips, 2024).

Having been unable to visit the Sergio Toral neighbourhood personally, I have collected news reports from the area for an epilogue to this licentiate dissertation. The reports have been published in local newspapers and highlight the ongoing struggles and achievements of the neighbourhood's residents in this difficult context.

*El Universo*, a renowned national newspaper in Ecuador founded in 1921, published a report on 8 July 2012 that *Sergio Toral 2 and Janeth Toral have been included in studies for regularization processes*. The announcement was made by Mayor Jaime Nebot, who delivered property titles to almost 4 000 landowners, and announced the initiation of the legalization process for those cooperatives. On March 29, 2015,

the same newspaper published the headline: *Legalization in the Sergio Toral Cooperative*; in the corresponding article, a woman landowner in the Sergio Toral cooperative is shown receiving the property legalization notification (El Universo, 2012 and 2015). It may be concluded, then, that at least some parts of the neighbourhood have been legalized, in line with the wishes of the community and its leaders.

The digital news portal *Primicias*, founded in 2020, published the following headline on 23 October 2023: *Sergio Toral, a neighbourhood that even municipal officials are afraid to enter*. The article explains that the asphalt on the main road has been destroyed, and the secondary streets are filled with dust and mud. It describes Sergio Toral II as one of the most violent and impoverished areas of the city. According to the article, neighbourhood leaders from Sergio Toral had requested paving and mitigation measures from the municipality to address the effects of El Niño, and the mayor had promised that work would continue until 2025, despite financial difficulties at the municipality itself (Primicias, 2023).

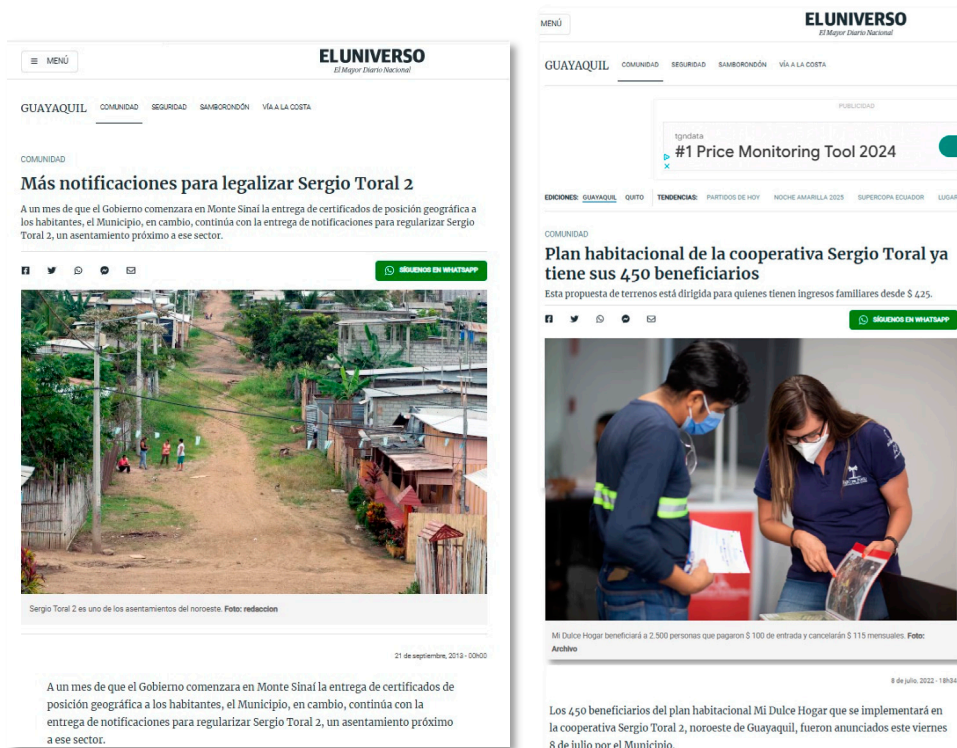


Figure 27. Newspaper clippings from the city, (a) feature a 2013 article reporting on new legalization at Sergio Toral and Monte Sinai neighbourhoods and (b) present a 2022 report detailing the inclusion of 450 beneficiaries from Sergio Toral neighbourhood in a municipal housing program.

Life has not gotten easier. The community seems to continue to be an enclave, a parallel neighbourhood, albeit one that has established a relationship with the municipality. The road infrastructure remains a challenge, and the funding for maintenance from the municipal authorities is insufficient.

The same digital newspaper published a very positive headline on 8 July 2024: *Mayor Aquiles Álvarez delivered a new multipurpose facility that will bring municipal services closer to Sergio Toral*. In the article, a founding resident and community leader who has lived in the neighbourhood for over 20 years described the inauguration of the new multipurpose centre in a troubled, formerly abandoned area, stating that she now felt the city belonged to everyone. According to the article, city councilman Raúl Chávez expressed that the multipurpose centre would contribute to the reconstruction of the social fabric, combating insecurity whilst helping to develop both the city and the country, stating, ‘We are not reinventing the wheel.’ (Primicias, 2024)

MENÚ **EL UNIVERSO**  
El Mejor Diario Nacional

GUAYAQUIL COMUNIDAD SEGURIDAD SAMBORONDÓN VÍA A LA COSTA

**Concejo Municipal sesionó en la cooperativa Sergio Toral y aprobó obras para cancha de este sector**  
Esta cancha contará con techado, cercado y graderíos.

NOTAS RELACIONADAS

- \$ 2,2 millones se destinarán para mejorar el sistema de señalización marítima del Puerto de Guayaquil
- Juegos populares se realizarán en plazoleta del Comité Olímpico este sábado 28

¡SÍGUENOS EN WHATSAPP!

Unidos Venceremos PRESENTE!

Unidos Venceremos PRESENTE!

Sesión del Concejo Cantonal se dio este jueves en la cooperativa Sergio Toral. Foto: Cortesías: Alcaldía

26 de octubre, 2023 - 16h21

El Concejo Cantonal de Guayaquil realizó la segunda sesión itinerante este jueves, 26 de octubre, en la cooperativa Sergio Toral 2, noroeste de Guayaquil.

GUAYAQUIL

**Moradores de la Sergio Toral se benefician de la reparación de 6,3 kilómetros de vías**

Publicación en línea 8 minutos en junio 18, 2024  
Por Daniel Aguilera Ríos

La Dirección de Obras Públicas del Municipio de Guayaquil interviene en la vía de acceso a la cooperativa Sergio Toral, ubicada al noroeste de la ciudad. Una cuadrilla de la Coordinación de Obras por Administración Directa trabaja en el relleno, reconformación y asfaltado de la última fase programada en este sector, desde la avenida Casuarina.

El objetivo es que los moradores de esta zona puedan transportarse de forma segura; entre ellos, los estudiantes y padres de familia de la unidad educativa Riscal Doctor Miguel Domoso Pareja. Marina Delgado habita en la etapa 2 de la Sergio Toral, y todos los días debe movilizarse hasta la entrada de la etapa 1, para llevar a su hija a la escuela. Ella recibe con mucho entusiasmo esta obra. "Primero, ya no tenemos tanto polvo; dos, todo ya no más; tres, las líneas de buses ya entran. Es lo más beneficioso que hemos estado esperando por décadas. El Alcalde Aquiles vio la necesidad que tenemos en esta cooperativa y se puso en nuestros zapatos", señaló.

Figure 28. Newspaper clippings from the city highlighting recent municipal interventions in the Sergio Toral neighbourhood. (a) reports on the construction of a football field by the municipality, dated October 2023. (b) documents the repair of streets carried out by the municipality, dated June 2024.

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# Appendices

## **Appendix 1**

Surveys and Questionnaire Forms

# Cuestionario para residentes de Asentamientos Informales *(Spanish version)*

Nombre del asentamiento informal:

Fecha:

Nombre del entrevistado (si está de acuerdo)

## A. Generalidades

1. Género  
 Masculino     Femenino
2. Edad  
 Menos de 20    20-30     30-40     40-50     50-60     60 o más
3. Nivel de educación  
 Preescolar     Primaria     Secundaria     Técnica     Universitaria
4. ¿Cuál es su oficio?
5. ¿Cuánto tiempo ha vivido en este barrio?  
 Menos de 2 años    2 a 5 años     5 a 10 años     10-20     más de 20
6. ¿Es usted la primera, segunda o tercera generación viviendo en este barrio?
7. Con cuánto dinero aproximadamente se mantiene usted y su familia diariamente, semanal

## B. Relación entre asentamientos formales e informales

1. ¿Cuáles son las razones por las que usted vive en este barrio?
2. ¿Cuáles son las ventajas de vivir en este barrio?
3. ¿Cuáles son las desventajas?
4. Sería posible para usted vivir en un barrio legal/formal?
5. Si tuviera la opción, se trasladaría a un barrio legal/formal?

## C. Categorías entre asentamientos informales

1. ¿Podría describir su barrio, con relación a otros barrios similares ejemplo: Sergio Toral, Valerio Estacio, Fortín de la Flor, Bastión Popular etc.?
2. ¿Como es la relación entre las autoridades municipales, el gobierno provincial y su barrio?
3. ¿Existen diferentes formas de relaciones entre las autoridades y otros barrios ilegales similares?
4. ¿Qué hace el municipio o el gobierno provincial por el barrio? ¿Qué hacen ustedes por su barrio? por el municipio? ¿o por el resto de la ciudad?

## D. Tenencia de la tierra

1. ¿Quien o quienes son los dueños de la tierra?
2. ¿Viven ellos en este barrio?
3. ¿Qué poder/autoridad tienen ellos?
4. ¿Como es la estructura de liderazgo del barrio?
5. ¿Como funciona? (Dirigente, coordinadores, equipo de apoyo, etc.)
6. Existen reglas en cuanto al uso de la tierra, ¿Cuáles son?
7. ¿Existen reglas para el uso de los servicios en el barrio? (servicios tales como agua, basuras, desagües, drenajes, sanitarios/letrinas públicas, seguridad o vigilancia etc.) ¿Cuáles son?
8. Existen reglas para el uso de equipamiento tales como escuela, salud, áreas para acciones domésticas, casa comunal, casa para el culto, parques, diversión y esparcimiento etc. ¿Cuáles o cómo son?
9. ¿Cuál fue el proceso que siguió su familia y Ud. para instalarse en este lugar?
10. ¿Mantiene una relación (económica) de pagos directa con los dueños de la tierra o es a través de intermediarios? Explique cómo funciona
11. ¿Qué le garantiza a usted que no lo van a sacar de su vivienda o de su terreno?
12. ¿Sabe usted si existen mecanismos que en un futuro permitan que el barrio se legalice? ¿Cuáles?
13. ¿Estaría interesado en una posible legalización de su barrio? ¿Por qué si y por qué no?

## **E. Planeación urbana**

1. ¿Cuáles fueron de ocupación del lote y ubicación de su vivienda cuando Ud. y su familia llegaron a este lugar?
2. ¿Cuáles son las reglas en su barrio?
3. ¿Cómo y quién garantiza que éstas se cumplan?
4. ¿Quién organiza y decide los cambios físicos o mejoras en el barrio?
5. ¿Quién construyó su casa?
6. ¿Es posible ampliar su casa?
7. ¿Quién construyó las calles, los parques, el comercio etc.?
8. ¿Qué derechos tiene usted o su familia en el barrio?
9. ¿Qué obligaciones tiene usted o su familia en el barrio?

## **F. Patrones de organización**

1. Sabe usted, ¿quién y cómo se decide sobre la división de los lotes?
2. Sabe usted, ¿si existen o existieron lotes destinados a otro tipo de uso además de vivienda, cuáles?
3. ¿Existen manifestaciones de carácter social barrial como: reuniones, celebraciones, ritos, fiestas religiosas, paganas, campeonatos de deporte etc.? Explique

4. ¿Existen grupos dentro del mismo barrio? (grupos religiosos, étnicos, pandillas, grupos deportivos, división de comités del barrio)
5. ¿Está el barrio según condiciones sociales, dividido físicamente de alguna forma? (zonas mejores, peores, zonas de grupos específicos: políticos, religiosos, étnicos... zonas seguras, zonas inseguras, zonas de pandillas)
6. ¿Cómo son las relaciones entre los vecinos? (relaciones sociales, política, religiosa, de culto, étnica, de lenguaje)
7. ¿Qué lugares son los que usted más usa en su barrio?
8. ¿Existen zonas que usted no visita?
9. Existe algún tipo de segregación/exclusión/ discriminación dentro del barrio? (Religión, sexo, clase social, etnia.)

## **G. Gestión del suelo**

### **1. Lote**

¿Quién cobra la renta o mensualidad?

¿Cuánto paga Ud. mensualmente?

¿Cómo funciona el pago de este?

¿Cómo o qué determina este precio de este?

### **2. Vivienda**

¿Quién cobra la renta o mensualidad?

¿Cuánto paga Ud. mensualmente?

¿Cómo funciona el pago de esta?

¿Cómo o qué determina este precio?

3. ¿Qué otros servicios básicos paga usted? (servicios tales como agua, basuras, desagües, drenajes, sanitarios/letrinas públicas, seguridad o vigilancia)
4. ¿Qué otros servicios paga usted? (tales como seguridad o vigilancia, escuela, salud, áreas para acciones domésticas, casa comunal, casa para el culto, parques, diversión y esparcimiento etc.)
5. ¿Qué porcentaje más o menos de sus ganancias mensuales las destina a:  
la renta del lote, la vivienda y los servicios básicos, como agua, basuras, desagües/ drenajes, sanitarios/letrinas públicas, seguridad o vigilancia electricidad otros.

## **H. Reglas**

1. Existen algunas reglas (escritas o no escritas) en su barrio, con respecto a: ¿etnicidad, sexo, estatus, religión, ideología, política etc.?
2. Si es así, ¿cómo y quién garantiza que se cumplan?

## **I. Patrimonio Local**

1. ¿Existe alguna identidad que caracterice a su barrio?

2. ¿Hay alguna tradición local que este barrio haya desarrollado y conservado?

## **J. La vivienda**

3. ¿Cuántos años tiene su casa?
4. ¿Cuál es el área de su vivienda?
5. ¿Cuántas personas viven allí? ¿Cuántos niños (menores de 16)? ¿Cuántos adultos? ¿Cuántos ancianos?
6. ¿Cuántas habitaciones tiene su vivienda?
7. ¿De qué materiales está construida su casa y de dónde vienen estos materiales? ¿Cómo funciona el pago de estos?
8. ¿Qué servicios tiene su vivienda?
9. ¿Cuándo fueron provistos estos servicios?, antes - durante o después de la construcción de vivienda? Explique
10. ¿Es usted y su familia dependiente de estos servicios? los podría conseguirlos por otro lado? ¿Sería más costoso, más barato?
11. ¿Cuáles son las mayores desventajas de su vivienda y de su barrio?

## **K. El barrio y el medio ambiente**

1. ¿Qué servicios tiene su barrio? (manejos de basuras, drenajes, baños/lavanderías comunales/letrinas públicas, seguridad o vigilancia de barrio, zonas de recreación, salones comunales etc.)  
y cómo está organizado el suministro de los servicios?  
¿Quién provee estos servicios? los dueños de tierras, personas del mismo barrio, otros ajenos al barrio, ¿el municipio?
2. ¿Qué servicios faltan, son de baja calidad o no funcionan bien en el barrio?
3. Es usted y su familia dependiente de estos servicios? ¿o los podría conseguir por otro lado?
4. ¿Están servicios tales como educación y salud incluidos en su barrio? Si no, ¿cómo los obtiene?

## **L. Medio ambiente**

1. ¿Como considera usted el medio ambiente en su barrio? ¿Saludable, insalubre?
2. ¿Conoce usted si hay riesgos de salud en este barrio, cuáles?
3. ¿Conoce usted si hay otro tipo de riesgos en este barrio, (inundaciones, derrumbes, inseguridad...) Cuales?
4. ¿Existen áreas verdes, parques de recreación o deportes, cuáles?
5. ¿Con relación a la vegetación y aéreas verdes, son estas cuidadas? ¿Por quién o quiénes?
6. ¿Con relación a la fauna, hay algunos animales en el barrio, como funciona esto?
7. ¿Hay algún tipo de producción de alimentos en el lugar?

Muchas gracias por tomarse su tiempo y ayudarnos con nuestra investigación!

# Questionnaire for Residents in Informal Settlements (*English version*)

Name of the informal settlement:

Date:

Name of the interviewee (if they agree):

## A. General Information

1. Gender:  
 Male     Female
2. Age:  
 Under 20     20–30     30–40     40–50     50–60     60 or over
3. Level of education:  
 Pre-school     Primary     Secondary     Technical     University
4. What is your occupation?
5. How long have you lived in this neighbourhood?  
 Less than 2 years     2 to 5 years     5 to 10 years     10 to 20 years     More than 20 years
6. Are you the first, second, or third generation living in this neighbourhood?
7. Approximately how much money do you and your family live on daily/weekly?

## B. Relationship Between Formal and Informal Settlements

1. What are the reasons you live in this neighbourhood?
2. What are the advantages of living in this neighbourhood?
3. What are the disadvantages?
4. Would it be possible for you to live in a legal/formal neighbourhood?
5. If you had the option, would you move to a legal/formal neighbourhood?

## C. Categories Within Informal Settlements

1. Could you describe your neighbourhood in relation to similar neighbourhoods (e.g., Sergio Toral, Valerio Estacio, Fortín de la Flor, Bastión Popular, etc.)?
2. How is the relationship between local municipal authorities, the provincial government, and your neighbourhood?
3. Are there different types of relationships between the authorities and other similar informal neighbourhoods?
4. What does the municipality or provincial government do for your neighbourhood? What do you do for your neighbourhood, the municipality, or the rest of the city?

## **D. Land Tenure**

1. Who owns the land?
2. Do they live in this neighbourhood?
3. What power or authority do they hold?
4. What is the leadership structure in the neighbourhood?
5. How does it function? (Leader, coordinators, support team, etc.)
6. Are there rules regarding land use? What are they?
7. Are there rules for the use of services in the neighbourhood? (Such as water, rubbish collection, drainage, public latrines, security or surveillance, etc.) What are they?
8. Are there rules for the use of facilities such as schools, health centres, domestic activity areas, community centres, places of worship, parks, recreation spaces, etc.? What are they?
9. What was the process you and your family followed to settle here?
10. Do you maintain a direct economic payment relationship with the landowners, or is it through intermediaries? Please explain.
11. What guarantees do you have that you will not be evicted from your home or land?
12. Do you know of any mechanisms that may lead to the legalisation of your neighbourhood in the future? What are they?
13. Would you be interested in a possible legalisation of your neighbourhood? Why or why not?

## **E. Urban Planning**

1. What was the state of the plot and the location of your home when you and your family arrived here?
2. What rules exist in your neighbourhood?
3. How and by whom are these rules enforced?
4. Who organises and decides on physical changes or improvements in the neighbourhood?
5. Who built your house?
6. Is it possible to expand your house?
7. Who built the streets, parks, shops, etc.?
8. What rights do you and your family have in the neighbourhood?
9. What responsibilities do you and your family have in the neighbourhood?

## **F. Organizational Patterns**

1. Do you know who decides and how they decide on the division of plots?
2. Do you know whether plots have been used or designated for other purposes besides housing? Which ones?
3. Are there social events in the neighbourhood such as meetings, celebrations, rituals, religious or secular festivities, sports tournaments, etc.? Please explain.
4. Are there groups within the neighbourhood? (Religious, ethnic, gangs, sports groups, neighbourhood committees, etc.)

5. Is the neighbourhood physically divided in any way based on social conditions? (e.g., better/worse areas, specific political/religious/ethnic groups, safe/unsafe areas, gang areas, etc.)
6. What are the relationships like between neighbours? (Social, political, religious, ethnic, linguistic, etc.)
7. Which places do you use the most in your neighbourhood?
8. Are there areas you do not visit?
9. Is there any form of segregation, exclusion, or discrimination within the neighbourhood? (Religion, gender, social class, ethnicity, etc.)

## F. Land Management

### 1. Plot:

Who collects the rent or monthly fee?

How much do you pay monthly?

How is this payment handled?

What determines this price?

### 2. Housing:

Who collects the rent or monthly fee?

How much do you pay monthly?

How is this payment handled?

What determines this price?

3. What other basic services do you pay for? (e.g., water, rubbish, drainage, public latrines, security or surveillance)
4. What other services do you pay for? (e.g., security, school, health, communal domestic areas, places of worship, parks, recreation, etc.)
5. Approximately what percentage of your monthly income do you allocate to: Plot rent, Housing rent, Basic services (water, rubbish, drainage, sanitation, surveillance, electricity, etc.)

## G. Rules

6. Are there any rules (written or unwritten) in your neighbourhood regarding ethnicity, gender, status, religion, ideology, politics, etc.?
7. If so, how and by whom are they enforced?

## H. Local Heritage

1. Is there a unique identity that characterises your neighbourhood?
2. Is there any local tradition that this neighbourhood has developed and maintained?

## I. Housing

1. How old is your house?
2. What is the area (in m<sup>2</sup>) of your home?
3. How many people live in your home? How many children (under 16)? How many adults? How many elderly?
4. How many rooms does your house have?
5. What materials is your house made of and where do they come from? How is payment handled?
6. What services does your house have?
7. When were these services provided before, during or after construction? Explain.
8. Are you and your family dependent on these services? Could you access them elsewhere? Would that be more expensive or cheaper?
9. What are the major disadvantages of your house and neighbourhood?

## J. The Neighbourhood and the Environment

1. What services are available in your neighbourhood? (e.g., waste collection, drainage, communal baths/laundries, security, recreational areas, community centres, etc.)
2. How are these services organised?
3. Who provides them? (Landowners, local residents, outsiders, the municipality?)
4. What services are missing, of poor quality or do not work well in the neighbourhood?
5. Are you and your family dependent on these services? Could you obtain them from other sources?
6. Are services such as education and health available in your neighbourhood? If not, how do you access them?

## K. Environment

7. How would you describe the environment in your neighbourhood? Healthy or unhealthy?
8. Are you aware of any health risks in this neighbourhood? Which ones?
9. Are you aware of any other types of risks (e.g., flooding, landslides, insecurity)? Please describe.
10. Are there green areas, parks, or recreational or sports spaces? Which ones?
11. Are these green areas and vegetation maintained? By whom?
12. Are there animals in the neighbourhood? How is this managed?
13. Is there any type of food production in the area?

Thank you very much for taking the time  
and support our research!

## **Appendix 2**

Summary of the survey.









Sergio Toral II  
Neighbourhood

Photo by: J. Nordström, LTH 2015. Nordström, Swann, Ecolab, 2011, 0903

## Learnings from Informal Settlements

### – The Case of Guayaquil

Informal settlements often appear chaotic, seeming perhaps to have emerged without any planning. Evidence suggests however that many slum areas are in fact the result of organized, structured processes carried out with discipline and precision. Formal and informal settlements coexist parallel to one another without significant interaction, and governments and informal planners rarely understand each other's work. Observations during visits to informal settlements in Guayaquil, Ecuador, revealed that they were arranged in a rational urban pattern with an orthogonal layout, with precise measurements and a certain degree of organization. This fascinating insight sparked curiosity and motivated this study, as it reinforced the idea that informal settlements are not purely chaotic but instead guided by tacit knowledge that could help guide sustainable urban development.

The licentiate dissertation seeks to answer a central question that arose from initial observations regarding how informal settlement planning functions and its consequences for dwellers in terms of quality of life. It also addresses questions such as why informal settlements succeed in providing more housing solutions than the formal sector, how communities organize decision-making and how this is reflected in physical planning, and how informal settlement development occurs in terms of land appropriation, subdivision, housing construction, and the provision of infrastructure and services. Additionally, this study explores what professional urban planners can learn from informal settlements.

Four theoretical concepts have been used both to understand and explain the findings. These are: (i) tacit knowledge, Polanyi's approach; (ii) the practice of everyday life, Certeau's approach; (iii) the production of space, Lefebvre's approach; and (iv) territoriality, Kärholm's approach.

The study highlights the transformative potential of organized communities in urban development. In Guayaquil, informal settlements, driven by accumulated local knowledge and adaptive strategies, play a significant role in housing production, and often produce a larger quantity of housing units than the formal sector. Key findings emphasize the importance of community organization, tacit knowledge, and spatial strategies, which enable these neighbourhoods to evolve incrementally and allow the informal spaces to be transformed into cohesive social and urban territories.



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ISBN 978-91-7740-139-1



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